

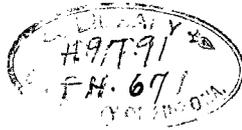
A HISTORICAL
AND
BIOGRAPHICAL RECORD
OF THE
TERRITORY OF ARIZONA.

“A people that takes no pride in the noble achievements of remote ancestors will never achieve anything worthy to be remembered with pride by remote descendants.”—MACAULAY.

“Biography is the only true history.”—EMERSON.

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PREFACE

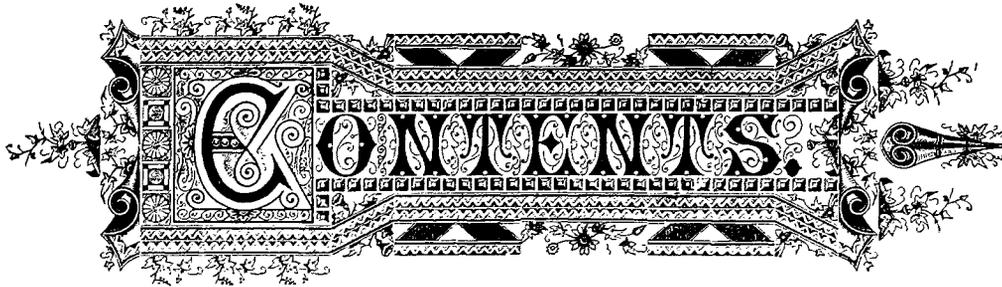


THE publishers, with much pleasure, present this beautiful volume to their friends and patrons for whom it is prepared. It will be found to be a valuable work, full of interesting facts and reminiscences of the past and present history of the Territory and a credit alike to the citizens and the publishers. The biographies and the portraits, it will be conceded, add materially to the value of the work. Owing to the meagerness of satisfactory records the publishers were compelled to make use of available data of every description which came to their knowledge; and, hence, the volume will be found full of extracts from all authorities who have written anything reliable concerning Arizona. We are satisfied our work will bear the closest scrutiny and sustain our well-known reputation for accuracy and fidelity.

We freely acknowledge our indebtedness to hundreds of citizens throughout the Territory, to public officials, to the press and to many previous publications from whose columns we have, by consent, liberally drawn. We acknowledge special favors from the following: *The Arizona Republican*, Ex-Gov. Louis C. Hughes, Hon. John A. Black, Reports of the Experiment Station of the University of Arizona, *Mesa Free Press*, Prof. Howard Billman, *Arizona Citizen*, Ex-Gov. C. M. Zulick, Ex-Gov. Lewis Wolfley, Ex-Gov. N. O. Murphy, Hon. J. F. Blandy, Ex-Gov. John N. Irwin, Prof. F. A. Gully, Mr. C. A. Higgins, Prof. E. M. Boggs, Ex-Gov. F. A. Tritle, Prof. F. J. Netherton, *Arizona Star*, Prof. T. B. Comstock, Prof. M. P. Freeman, Prof. Howard Hall, *Phoenix Gazette*, *Arizona Enterprise*, Dr. John T. Green, *Yuma Sentinel*, "Arizona as It Is"—Hodge, History of Arizona—Elliott & Co., *Yuma Times*, A. P. Walbridge, Alex. O. Brodie, J. Ross Browne, Hon. John C. Cremony, Hon. — Poston, Hon. Sylvester Mowry, Maj. J. W. Powell, Pacific Railroad Reports, James H. Simpson, *The Journal Miner*, Wheeler's Reports, Gen. George J. Roskruge.

THE PUBLISHERS.





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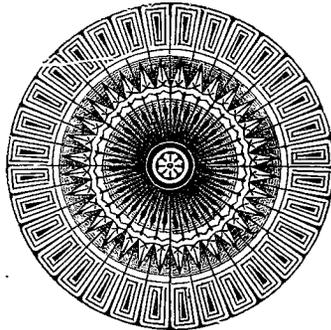
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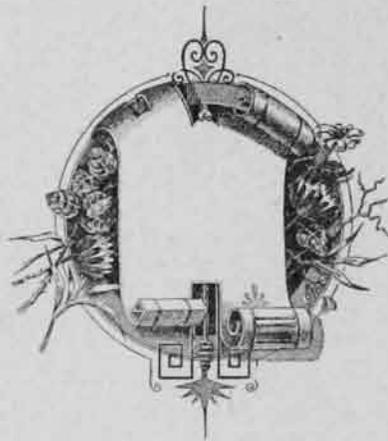
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HISTORICAL AND BIOGRAPHICAL RECORD

—OF THE—

TERRITORY OF ARIZONA.

CHAPTER I.

NATURAL FEATURES—GREAT DIVERSITY OF NATURAL PHENOMENA—THE AGRICULTURAL TRACTS—
THE COCONINO FOREST—CONFIGURATION AND MOUNTAIN RANGES—THE PRINCIPAL ELEVATIONS—
THE RIVERS AND THEIR TRIBUTARIES—THE GREAT MESAS AND PLATEAUS—
BEAUTIES OF THE PAINTED DESERT—GRAND CAÑON OF THE COLORADO—
DESCRIPTION OF OTHER CAÑONS—OTHER WONDERS OF THE TERRITORY—
THE WILD ANIMALS—MARVELS OF THE VEGETABLE KINGDOM—
QUARRY OF ONYX—CHALCEDONY PARK—THE LAKES OF THE
TERRITORY—MINERAL AND HOT SPRINGS—PRECIOUS
STONES—BUILDING AND ORNAMENTAL STONES.

It is doubtful if any other area of equal extent in the world has a greater number or greater diversity of natural phenomena than Arizona. From desert tracts to valleys of extraordinary fertility; from torrid heat to frigid cold, from lowland to highland, from plains as level as a floor to a succession of frightful gulches and cañons that amaze the beholder; from solitude to populous cities; from savage squalor and filth to civilized purity and refinement, from the simplest plant to the giant cactus, from rainfall to brightest sunshine, from sickness to certain and permanent health, from worthless stone to choicest minerals, from peace to savage war—anything almost that can be imagined can be found in this delightful clime.

Special mention should be made of the Coconino Forest, a fine body of timber lying forty miles northeast of San Francisco Peak, and an immense extent of grazing country in Yavapai

County. The vast tract of country that lies between the great Colorado Plateau and the tract of country last mentioned is almost entirely agricultural, and is particularly well adapted for the purposes of the husbandman. Here there are countless acres of land which, from its natural fertility, and the benignant influences of a climate absolutely perfect for the development of the products of the farm and the orchard, is capable of producing in their highest perfection every product of the semi-tropical and the temperate zones. Indeed, in respect to fertility and wide range of productiveness, the lands of Central Arizona can safely challenge the world to not only surpass, but even to rival, them. Here, also, is found the same remarkable variety of scenery which characterizes the more northerly part of the Territory in the shape of the alternation (at much greater intervals, however) of rugged mountains, deep cañons and fertile

plains and valleys. Of course the mountain ranges are not so continuous, but their occurrence contributes the scenic variety indicated, and what is even more important, from the point of view of the practical man and the utilitarian, they are the magnets that attract the fertilizing rains, and contribute from the results of their own decomposition, to the fertility and beauty of the smiling valleys below.

Arizona scenery is characterized by its numerous and magnificent mountain ranges. They not only, as has been already said, diversify the scenery, and add to its wondrous beauty, but, as a natural result, contribute very materially to the fertility of the intervening valleys. The system is undoubtedly a continuation, though a somewhat disconnected and irregular one, of the Rockies and the Sierra Nevada.

In 43 deg. 30 min. north latitude the Wind River chain of the Rocky range divides about the remote sources of the great Colorado. One branch trends southward and, passing around the sources of the Platte, the Arkansas and the Rio Grande is merged into the Guadalupe mountains, and, at last, loses itself in the great prairie plains of the Southwest. The other branch, turning to the west and south, forms the Wasatch range, the eastern rim of the Utah Basin, and widening out to the level of the Great Plateau, reaches the cañon of the Colorado near 112 deg. of longitude. A branch of the Sierra Nevada deflects from that range east of Owen's River, and with a general trend to the southeast, passes by the head of the Rio Virgen, becomes merged in the plateau, and unites with the Wasatch at Grand Cañon. The united ranges form the mountain system of Arizona, and, south of the Great River, break up into parallel ridges, isolated groups, detached spurs and peaks, which are again united in one massive chain in the Sierra Madre, in Northern Mexico.

The San Francisco Peak may be considered the apex of the Arizona mountain plateau, and the northern limit of the numerous ranges extending from the 35th parallel to the Sonora line and from the 109th to the 113th degree of longitude. From the San Francisco Mountain, a ridge extends southeast, separating the waters of the Little Colorado from those of the Gila, and is known as the Mogollon, while its south-eastern spurs are known as the Sierra Blanca,

or White range. These ranges are well wooded and watered, and contain abundance of excellent feed for stock. West of the Mogollon, and running parallel with that range, is the Sierra Mazatzal, another extension of the San Francisco Mountain system. It is also well wooded and plentifully supplied with streams of water, and its valleys and foothills are covered with an abundant supply of rich grasses. Among the detached spurs the Sierra Ancha is to be noted. It rises in the Tonto Basin, and is a flat-topped mountain, some 30 miles in length and covered with one of the largest and finest bodies of pine timber to be found in Arizona. The scenic beauties of the Tonto Basin are unequalled in the Territory. On Pine Creek is the great Natural Bridge of Arizona, one of the most remarkable curiosities in the West.

Between the Salt River and the Gila are several mountain groups, the principal of which are the Superstition range, the Pinal range, the Salt River range, the Apache mountains, the Gila range, the Sierra Natanes and the Sierra de la Pitahaya.

West of the Rio Verde, the country between the Great Colorado and the Gila is intersected by several mountain ranges, the principal being the Verde mountains (the northern end of which is known as the Black Hills), the Bill Williams' Mountain, the Bradshaw and Sierra Prieta, a magnificent range 50 miles in length, with an average width of about 20 miles, and the Juniper range. Between the last named and the Colorado, to the north of Bill Williams' Fork, are a series of irregular spurs running parallel to each other, and including the Mount Hope, the Cottonwood, the Hualapai, the Corbat and the Black mountains. Nearly all of these last named ranges are rich in precious metals, and have been successfully mined since the first settlement of Northern Arizona. The Weaver range extends southwest of Prescott from Date creek to Hassayampa, and in it is Antelope Peak where, in 1863, the great gold "find" was made which gave such an impetus to mining in the northern part of the Territory.

South of the Gila and extending to the boundary of Sonora are: the Peloncello range immediately west of the line of New Mexico, a low, broken, untimbered range; the Chiricahua, "one of the largest and most continuous ranges in

Arizona" (being over 100 miles in length and in some places 20 miles in width), and the Dragoon range.

In sight of Tucson, and north of the Whetstones, rises the majestic Santa Catalina from the midst of a desert plain, the range of which it forms a part extending north to the Gila, the upper portion being known as the Tortilla mountains. The Galiuro Mountain, including the peak known as Mount Turnbull, extends from the cañon of the Gila, southwesterly, for between 30 and 40 miles. Southwest of the Santa Catalinas are the Santa Ritas, a group in which mining was first engaged in by Americans in Arizona. Southeast of the Santa Ritas is the Hualachuca range, a well-watered and wooded mountain land with fertile valleys lying between its various peaks.

West of the Santa Rita range and between the Gila and the Sonora line, the country is not so distinctively mountainous, having only detached ranges and isolated peaks, large, grassy plains filling the intervals. Among the principal ranges and peaks may be mentioned the Atascoso, the Sierra Verde, the Boboquivari Peak (7,000 feet in height) and Mount Quijotoa, famous for containing extraordinarily rich mines.

A precisely similar stretch of country—in respect of conformation—extends from the Gila to the 34th parallel, and west of the 112th meridian. Among its ranges and peaks may be mentioned the Harcuvar, the Sierra de Estrella, the White Tank mountains, the Haqui-hela, the Big Horn, the Plomosa, the Castle Dome, the Chocolate range, etc. These mountains are barren and rugged, being unwatered and, consequently, untimbered, while the intervening plains are covered with coarse grass and stunted shrubs. The mountains, however, abound in mineral wealth, and water can be obtained by digging wells.

The following is the altitude above the sea of some of the leading peaks of this grand mountain system: San Francisco 12,561 feet, Sierra Blanca 11,496 feet, Mount Graham 10,516 feet and Mount Wrightson (in the Santa Ritas) 10,315; Santa Catalina 9,950, Mount Kendrick 9,800, Mount Turnbull 9,500, Mount Sitgreaves 9,097, Mount Bill Williams 9,080, Chiricahua 9,000, Mount Union (Sierra Prieta) 9,000, Four Peaks (Mazatzal) 8,600, Mount Hualapai 8,000, Superstition 8,000, Boboquivari 7,000.

When it is remembered that, with hardly an exception, these mountain ranges are either heavily timbered or rich in the precious metals and other minerals, it will be admitted that, so far from being a drawback to the Territory, they add enormously to its wealth as well as enhance its beauty.

The Colorado River takes its rise in the Wind River chain of the Rocky mountains, about 12,000 feet above the sea level, and, until its junction with the Grand River in Southeastern Utah, it is known as the Green River. From that point until it debouches into the Gulf of California, it is called the Colorado. Its course is southwesterly until it reaches the mouth of the Virgen, when it turns its course almost due south and continues to flow in the same direction until it reaches the Gulf. Its other principal tributary is the San Juan, which joins it above the entrance of the Grand Cañon. The whole length of the river is over 1,500 miles, and the area drained by it is computed to be larger than New England, Pennsylvania and Virginia combined. It is not a good stream for commercial purposes on account of its channel continually shifting, although it is navigable for boats of light draught for about 600 miles. It drains the whole Territory of Arizona, though within the limits of the Territory it receives only two tributaries of any great size—the Little Colorado and the Gila.

The Little Colorado, or Colorado Chiquito, as the Mexicans call it, rises in the Sierra Blanca and follows an almost uniform northwesterly course of 200 miles until it joins the Great Colorado near Grand Cañon. Its tributaries are—taking them in the order in which they join it—the Zuni from New Mexico, the Rio Puerco, likewise from New Mexico, the Leroux Fork, Chevelon's Fork (both small mountain streams) and the Moencopy.

The Rio Puerco, about ten miles above its junction with the Little Colorado, is joined by the Lithodendron (Stone-tree) Creek, on the banks of which is one of the most wonderful natural phenomena to be found in the world, in the Petrified Forest. The Forest is several miles in extent and consists of trees of the cone-bearing variety literally "turned into stone." All over the ground, between the trunks of the trees, are strewn branches and leaves in a state of

petrification and, here and there, bodies of birds and animals are said to be found in the same condition. Some of the trees are of vast size and are not unlike, in many respects, the Sequoia Gigantea of California.

The Gila, the largest tributary of the Great Colorado, and the next to it in size of the rivers of Arizona, rises in the eastern part of the Mogollon mountains. It flows in a westerly course, though with many windings from the time it enters the Territory at the New Mexico line until it joins the Great Colorado at Yuma. It receives the Rio San Francisco from the Sierra Natanes, the Bonita and Eagle creeks from the Sierra Blanco, all three clear and rapid mountain streams. From the point where the Bonita joins it, the Gila flows through the Pueblo Viejo, a beautiful valley nearly 40 miles in length, and varying from 2 to 4 in width. The Rio del Sur, an underground river, joins the Gila near the town of Solomonville, and the San Carlos, a large stream from the valley of the same name, falls into it just before it enters the cañon which it has cut through several rocky ranges which cross its course soon after it leaves the Pueblo Viejo. After emerging from this cañon, a few miles above the town of Florence, it enters on the wide and unbroken plain which stretches from there to the Colorado River, the destination of the Gila.

One tributary of the Gila, to wit, the Salt River, is large enough to merit special mention by itself. It is formed by the union of the Black and White rivers in the Mogollon mountains, these rivers receiving many tributary creeks, from their rise in the Sierra Blanca until they join to form the Salt River. Like the Gila, the Salt River passes through a picturesque cañon in which it receives several tributaries, such as the Tonto, Cherry and Cibicu creeks, and after a course of about 200 miles joins the Gila below Phoenix, losing its name and individuality in those of that river. The cañon cut by the Salt River, through the same range of mountains which the Gila pierces, is longer, and, if possible, even more picturesque, as regards scenery, than that made by the river to which it is tributary. A somewhat curious, though not unparalleled, circumstance is that, though the Salt River is called a tributary of the Gila, it is, as a matter of fact, a considerably larger river, and should, by

rights, absorb the name of the latter, instead of *vice versa*.

Its own principal feeder is the Rio Verde, which rises in the Chino Valley, in the Colorado Plateau, between the Juniper and Bill Williams' mountains. Into it flows Granite Creek, on which the city of Prescott stands, and it picks up numerous mountain streams from the Black Hills, San Francisco Peak and the Mazatzal range. It is a beautiful stream, teeming with fish, and passing through many rich and fertile valleys in its course.

A tributary of the Gila is the Santa Cruz, which, rising in the Patagonia mountains, in the extreme south of Pima County, crosses the Mexican line, and, after running for several miles through Sonora, turns back and flows due north to the city of Tucson, whence it takes a north-westerly course and joins the Gila. The peculiar thing about this river is, that, its channel being through a loose sort of gravel, it disappears, here and there in its course, to reappear at some other point, and, wherever it shows on the surface, it has been made available for irrigation with the most gratifying results.

The Agua Fria, which, rising ten miles east of Prescott, circles around the northern part of the Sierra Prietas, flows parallel to the Rio Verde, and, after making a trip underground, joins the Gila at Big Bend. Its whole course is about 120 miles.

A number of minor streams and mountain creeks (whose name is legion, for they are many) might be enumerated, but sufficient has been said to show that Arizona is a well-favored land in this regard, and that while she has some unproductive spots, and some desert tracts, she has, nevertheless, within her boundaries, immense stretches of the most fertile soil, blessed with abundance of that life-giving and fertilizing element which was the first thing the Creator provided for Eden, and which has rendered so many portions of Arizona, in all respects, "like unto a garden which the Lord hath blessed."

History should make a permanent record of the physical features of the Territory. Its greatest length, from north to south, may be roughly stated at 400 miles, while from east to west it measures approximately 350 miles. It is mostly an elevated plateau or mesa—a very vast table-land—rising to a height of from 5,000 to 7,000 feet

above sea-level in the northern part. Toward the southwest corner it slopes down to the level of the shore. The highest point of the entire Territory is the summit of the extinct volcano, San Francisco, which reaches an elevation of 12,561 feet above the level of the sea. It is visible over a radius of 200 miles, and, during at least half the year, the summit and sides of the defunct crater are covered with snow, forming one of the grandest sights imaginable, as it towers in its unspotted garb of heaven's ermine, and in solitary majesty over the adjoining scenery, "monarch," in verity, as well as appearance, "of all it surveys."

First, in extent as well as in varied beauty of the great mesas, is the Colorado Plateau. It is in the extreme northern part of the Territory, and varies in elevation, as already stated, from 5,000 to 7,000 feet. Besides the giant peak of San Francisco, there are the Bradshaw and Mogollon ranges of mountains rising from this vast mesa with an abruptness which, while it redeems the scene from monotony, does not interfere with the unity—or rather continuity—of the vast table-land. Besides these there are numerous detached spurs of the monarch peaks, striking off on either side like the ribs of some mammoth vertebrate. The intercostal spaces are filled by verdant and fertile valleys, widening, in many instances, into grassy plains, where armies of cowboys raise herds of cattle to supply the wants of a great proportion of the world's markets. This vast plateau is drained by numerous streams, the chief of which are the Colorado of the West, the Colorado Chiquito, the Gila and the Verde.

Almost from the base of the San Francisco Peak, the rapid declivity of the land begins toward the Gulf of California. The change in the contour of the country is abrupt, and consequently striking, while the climatic change is no less so, but the country is one of remarkable fertility, enriched as it is by the detritus carried down from the more elevated part of the Territory by the numerous mountain streams. There are detached ranges of mountains intersecting this portion, which, while not of any such majestic height as the peaks and ranges of the Colorado Plateau, yet serve to vary the scenery and redeem it from the monotony of a merely prairie country.

The only portion of the whole Territory which might be denominated, in the strictest sense of the term, a desert, is in the extreme southwest, bordering on the Gulf of California. There the soil is gravelly, and, consequently, unproductive, and water is exceedingly scarce. Vegetation is consequently very sparse, being limited to a scanty growth of very coarse grass and stunted shrubs.

In the southeast, on the contrary, the ranges of mountains known as the Santa Catalinas, the Santa Ritas, the Huachucas, the Graham chain, and the Chiricahuas, attract the rain-clouds and send down their contents by many a mountain stream to fertilize the valleys and plains below. Water and, consequently, verdure and timber are, therefore, abundant there, and, as a natural result, the valleys and plains are covered with vast herds, as far as the base of the Sierra Madre in Mexico.

There is a wonderful cluster of unparalleled natural phenomena located in Northern Arizona. Within a small radius are located the grand Cañon, over 6,000 feet deep; the San Francisco Mountain, nearly 13,000 feet high; groups of extinct volcanoes, Montezuma's Well, the petrified forests and the Painted Desert. Added to these are the cliff and cave dwellings and other striking evidences of a prehistoric race, making this point of much interest to scientists. The San Francisco Mountain is said to present every formation known to geologists, and from crest to base are found the flora of six distinct zones, neither of which phenomena, it is declared, is known to exist at any other place on the earth's surface. This section, the altitude of which ranges from 6,000 to 7,000 feet, is covered with pine forests, making a most delightful summer retreat. Many scientists from not only the United States but from the continent of Europe visit this region to study these natural wonders.

Arrangements are now in progress to establish a summer educational resort for not only the benefit of the people of the Territory, but of the adjoining States and Territories; also with the hope that the Federal Government will be led to feel the importance of establishing a national summer school of science for the benefit of the scientific world.

*North of the junction of the Little Colorado

*By T. E. Malone.

with the great river of the same name is that wonderful region of Northern Arizona called the Painted Desert. From the land of prodigious cañons, where in abysmal depths the mighty rivers roll on forever, and the surrounding landscape looks like the wreck of some blasted world, the traveler emerges on a vast elevated plateau, stretching away to the north and northeast far beyond the range of ordinary vision even in the rare atmosphere of that elevated clime. The blue sky of Arizona—famous over all the world for its dazzling depths of liquid clearness—overarches all that wide expanse of dreary, desolate plain.

Over the parched rocks and burning sands, between scattered clumps of cactus, the traveler whose curiosity is proof against oppressive heat, discouraging loneliness and eternal silence must wearily plod his way. At every step his path reveals some strange-looking fossil relic of the hoary ages of geological antiquity. Great silicified trunks of mammoth trees with dazzling scintillating crystallized cores are scattered here and there like the dismembered parts of the body of some mighty python cut clean by the sword of some fabulous Titan of old.

The shells of paleozoic crustaceans and mollusks, with the long, tapering, chambered orthocones, and huge convoluted remains of marine creatures of the past, that resemble great coiled serpents, are thickly embedded in the bed rock, but easily observable rising above the level of the softer sandy matrix in which they were covered up uncounted ages ago by the action of the restless waves of the now extinct carboniferous sea.

Rattlesnakes, fierce, venomous and lethargic, hiss and rattle ominously as they glide away from the adventurous intruder, and apparently wonder what kind of a new and rash being it is that has come to invade their hot, dessicated domain. The hideous *Heloderma Horridus*, better known as the Gila monster, basks in the glaring, blinding sun, or blinks torpidly beneath the scanty cactus shade. All around, above, beneath, there is silence—silence deep, lasting, oppressive and seemingly eternal.

But what is it that the startled traveler observes in the distance? What great walled city is that, with its arched gates, and equestrian statues above the portals, and giant sentries

guarding the approaches? Far away sweep the buttressed, battlemented walls, and above them rise towers, turrets, cupolas and massive pyramids in amphitheatric perspective, all mingled in indescribable chaotic vastness of extent and half concealed by a misty, hazy shroud that seems to be in constant motion, rising, falling and swaying with an irregular motion. Like a great panoramic scene the figures are ever changing. Armies with banners raised appear drawn up in battle array. Histrionic statues, rising above the ghostly warriors of the mists, stand as silent as the Sphinx. Other fierce-looking statuesque figures in oratorical attitude admonish the heterogeneous assemblage in silent eloquence, and with fixed and terrible expressions of hatred and ineffable scorn. Gaunt maidens, with loose robes flowing with the wind, and petrified with some Delsartian, rigid form of expression, defy the distant enemies or urge the spirit hosts of defenders to hasten to the fight.

Wonderful mirage! Strange desert hallucination this, which puzzles the mind of the beholder and makes him entertain the gravest doubts of his own sanity. No one who has not seen the place can begin to conceive the bewildering power of deception on the human eye. Even dogs are affected, showing signs of unrest and dread, and sometimes, after gazing ahead at the astonishing collection of unrealities, will turn tail and flee.

The sudden changes that come over the mirage-producing region are really startling. At times the whole cavalcade of prodigious deceptions seem to be suddenly possessed of motion, and sweep away to oblivion in a mad, precipitate charge. With a rush like that of Ney's troopers at Waterloo the figures of the mist disappear and are gone forever. Following them, cyclopean centaurs, with sunlit and flashing simitars, charge to the imaginary battle.

The mirages and the motions are supposed to be the result of the flashing of the sun's rays over the variegated rocks, which are of all shapes and forms, standing in profusion over all the wide extent of plain, and the effect on the eyes is to create hallucinations which affect human beings, dogs and horses apparently alike, as the latter become bewildered in the presence of the strange, unreal visions, and show a tendency to rush headlong from the scene.

Approaching closer to the remarkable desert plateau one beholds a most marvelous collection of natural forms. The great, soft, friable carboniferous sandstone stratum has been carved into the most grotesque shapes by the action of wind and storm and the chemical attributes of the atmosphere reacting on the peculiar chemical properties of the rock. There are red, white and green layers of stone, all firmly cemented together, and standing in the form of statues, buildings, walls and towers as far as the eye can see. The strong rays of the sun and the peculiar kind of misty Indian summer haze that hangs over the elevated table-land have the effect of giving the scene a fantastic, chaotic and indescribably startling weirdness of aspect. The enchantment lent by distance heightens the effect on the eye and imagination of the beholder.

The Indians call the place the Land of Departed Spirits, or the Spirit Land, and refuse to enter or approach it. They tell of a party of warriors that once ventured within the walls and were never more heard of. This tradition may be founded on some actual occurrence, as related, because the danger of getting lost in the labyrinthine passages and perishing from thirst and hunger is obvious when the nature of the strange region is taken into consideration.

The Painted Desert is shown on all the recent maps of Arizona. It is one of the greatest wonders of that wonderful region of deep cañons, towering mountains, petrified forests and mysterious prehistoric ruins.

The Grand Cañon of the Colorado is second to no other object on earth in its vast extent, and in its power to amaze, bewilder and confound. Stolid is he, indeed, if he can front that awful scene without quaking knee or tremulous breath. An inferno, swathed in soft celestial fires; a whole chaotic under-world, just emptied of primeval floods and waiting for a new creative word; a boding, terrible thing, unflinchingly real, yet spectral as a dream, eluding all sense of perspective or dimension, outstretching the faculty of measurement, overlapping the confines of definite apprehension. The beholder is at first unimpressed by any detail; he is overwhelmed by the ensemble of a stupendous panorama, a thousand square miles in extent, that lies wholly beneath the eye, as if he stood upon a mountain peak instead of the level brink of a fearful chasm

in the plateau whose opposite shore is thirteen miles away. A labyrinth of huge architectural forms, endlessly varied in design, fretted with ornamental devices, festooned with lace-like webs formed of talus from the upper cliffs and painted with every color known to the palette in pure transparent tones of marvelous delicacy. Never was picture more harmonious, never flower more exquisitely beautiful. It flashes instant communication of all that architecture and painting and music for a thousand years have gropingly striven to express. A cañon, truly, but not after the accepted type. An intricate system of cañons, rather, all subordinate to the river channel in the midst, which in its turn is subordinate to the total effect.

That river channel, the profoundest depth, and actually more than six thousand feet below the point of view, is in seeming a rather insignificant trench, attracting the eye more by reason of its somber tone and mysterious suggestion than by any appreciable characteristic of a chasm. It is nearly five miles distant in a straight line, and its uppermost rims are 3,000 feet beneath the observer, whose measuring capacity is entirely inadequate to the demand made by such magnitudes. One cannot believe the distance to be more than a mile as the crow flies, before descending the wall or attempting some other form of inchworm measurement. Mere brain knowledge counts for little against the illusion under which the organ of vision is doomed here to labor. That red cliff upon the right, fading through brown, yellow and gray to white at the top, is taller than the Washington Monument. The Auditorium at Chicago would not cover one-half its perpendicular span. Yet it does not greatly impress one. The spectacle is so symmetrical, and so completely excludes the outside world and its accustomed standards, it is with difficulty one can acquire any notion of its immensity. Were it half as deep, half as broad, it would be no less bewildering, so utterly does it baffle human grasp.

Something may be gleaned from the account given by geologists. What is known to them as the Grand Cañon District lies principally in Northwestern Arizona, its length from northwest to southeast in a straight line being about 180 miles, its width 125 miles, and its total area some 15,000 square miles. Its northerly

beginning, at the high plateaus in Southern Utah, is a series of terraces, many miles broad, dropping like a stairway, step by step, to successively lower geological formations, until in Arizona the platform is reached which borders the real chasm and extends southward beyond far into the central part of that Territory. It is the theory of geologists that 10,000 feet of strata have been swept by erosion from the surface of this entire platform, whose present uppermost formation is the Carboniferous; the deduction being based upon the fact that the missing Permian, Mesozoic and Tertiary formations, which belong above this Carboniferous in the series, are found in their place at the beginning of the northern terraces referred to. The theory is fortified by many evidences supplied by examination of the district, where, more than anywhere else, mother earth has laid bare the secrets of her girlhood.

The climax in this extraordinary example of erosion is, of course, the chasm of the Grand Cañon proper, which, were the missing strata restored to the adjacent plateau, would be 16,000 feet deep. The layman is apt to stigmatize such an assertion as a vagary of theorists, and until the argument has been heard it does seem incredible that water should have carved such a trough in solid rock. Briefly, the whole region appears to have been repeatedly lifted and submerged, both under the ocean and under a freshwater sea, and during the period of the last upheaval the river cut its gorge. Existing as the drainage system of a vast territory, it had the right of way, and as the plateau deliberately rose before the pressure of the internal forces, slowly, as grind the mills of the gods, through a period not to be measured by years, the river kept its bed worn down to the level of erosion; sawed its channel free, as the saw cuts the log that is thrust against it. Tributaries, traceable now only by dry lateral gorges, and the gradual but no less effective process of weathering, did the rest.

Beginning on the plateau level on the cañon's brink, the order of the rock formations above the river, according to Capt. Dutton, is as follows, the total vertical depth being more than a mile:

1. Cherty limestone, 240 feet.
2. Upper Aubrey limestone, 320 feet.

3. Cross-bedded sandstone, 380 feet.
4. Lower Aubrey sandstone, 950 feet.
5. Upper Red Wall sandstone, 400 feet.
6. Red Wall limestone, 1,500 feet.
7. Lower Carboniferous sandstone, 550 feet.
8. Quartzite base of Carboniferous, 180 feet.
9. Archæan.

The Grand Cañon is about 400 miles long as it twists and curves, but the river has cut its way deep into the soil for about 600 miles. In this vast area the river receives some 200 tributaries, each of which near the Grand Cañon has cut a cañon of its own. The river falls 3,000 feet in its course through Arizona. The most important of these cañons are Black, Marble, Desolation, Limestone, Picacho and Kanob.

Black Cañon contains twenty-five to thirty rapids, several, among which was Roaring Rapid, being very violent. Probably nowhere in the world is there a finer display of rocks of volcanic origin than may be seen about the southern entrance to the cañon. The beetling crags which form its massive portals are composed of dark brown porphyry of hardest and most resistant character. Just within the cañon, on the west side of the river, this porphyry is mingled with huge, convoluted masses of light-brown trachyte; tufa, pure white or white veined with crimson, and pale blue obsidian (pearlstone); amygdaloids of various kinds, their cavities filled with different zeolites; black and gray basalts, sometimes columnar; scoria, red, orange, green, or black, and of every grade of texture; porphyries in great variety, including some of unequalled beauty; trachytes and tufas of all colors; obsidian in its various forms,—all these are abundantly exposed in the immediate vicinity.

Elephant Hill, so called from an elephant's tooth found in valley drift, is scarcely two miles from the stupendous gateway which forms the southern entrance to the Black Cañon, the walls of which rise in perpendicular precipices of porphyry from 800 to 1,200 feet in height.

Cataract Cañon, in Coconino County, is marvelous for its intricacies. At the bottom is a stream ten or fifteen yards wide, fringed with cottonwoods and willows, and bordered by a narrow valley, which is cultivated by the Indians. This gorge is remarkable in being a cañon within a cañon, and in having many abrupt changes

and side cañons. It is destined to be one of the most attractive spots in the Territory for the pleasure-seeker. The strata on its sides will yet reveal wonders. Within it is a waterfall 1,800 feet high.

Painted Cañon, on the Colorado, in Mohave County, about twenty miles from Black Cañon, is less than 100 feet in volcanic rock. The materials composing its walls are traps, trachytes, tufas and porphyries, blue, white, brown, crimson, purple, etc., all the colors remarkably vivid, and the contrasts striking.

Arivaipa Cañon has its head about thirty miles northwest of Camp Grant, in Graham County, and twenty-five miles south of San Carlos, and is about thirty miles in length to its junction with the San Pedro River and Valley. The upper twenty miles is a deep, wild gorge, with steep and abrupt cliffs on both sides of from 400 to 1,000 feet in height, reaching back to a height of 2,000 feet. The cañon has been cut out by running water in the long ages which have passed away since the deposition of a drift that is plainly to be seen is mostly a conglomerate. The whole upper part of the cañon is a cemented conglomerate, and the lower part a sandstone conglomerate. The face of the cliff, the angles, the side cañons, the jutting and overhanging cliffs, are worn into all sorts of fantastic forms, such as forts, towers, churches, houses, thrones, pulpits, etc., which meet the eye at every turn for miles.

Marble Cañon, on the Colorado, is one of great beauty and variety. The limestone of this cañon is often polished, and makes a beautiful marble. Sometimes the rocks are of many colors—white, gray, pink and purple, with saffron tints. The walls of the cañon, 2,500 feet high, were of many beautiful colors, often polished below by the waves, or far up the sides, where showers had washed the sands over the cliffs. We found a fountain bursting from the rock high overhead, and the spray in the sunshine formed the gems which bedecked the walls. The rocks below the fountain were covered with mosses and ferns and many beautiful flowering plants.

Monument Cañon, on the Colorado, is deep and precipitous, with rough walls, but is one of beauty, and will repay a visit.

Gray Cañon cuts through a plateau on the south of which are the Book Cliffs. At first

the stream is bordered by a valley of sand plains. On the cañon walls are exposed shales and marls of blue and slate, buff and red. The walls are ragged and beetling, and a sense of grandeur envelops the scene. This will prove a source of never-ending delight to the pleasure-seeker.

Gila River Cañon is about 2,000 feet deep, with walls perpendicular and blood-red in color. Vegetation is almost wholly lacking. It is beautiful in the extreme, with many alcoves and rugged juttings, and is one of the spots the tourist should visit.

Castle Creek Cañon, about sixty miles south of Prescott, is small, but is distinguished by reason of its hot spring.

Clear Creek Cañon, near Winslow, is very deep, and has a stream of clear water running through it. The walls are engraved with hieroglyphics. The cave-dwellers lived here. Trout are abundant. The walls are 200 feet high.

Devil, Pyramid, Canebrake, Mohave, Rattlesnake, Sabino, Painted, Eldorado, Turkey, De Chelly, Rock. Cleaver, Fossil, Diamond, Keam, Querino, and others are noted in many important particulars.

The Little Colorado River is similar to the great river in the number of its cañons. Many of them are indescribably grand and bewildering. They vary in depth from 1,000 to 3,000 feet. They have all the characteristics of those already described and need no special mention.

In many respects the valley of the Gila presents as many wonderful features as do those of the two Colorados. It has a beautiful cañon and its valleys are rich and almost unrivaled.

Far up in the northeast are found many remarkable cañons, valleys and other natural features.

In all parts of Arizona are found surprises. Lava beds, extinct craters, tides of the Colorado, Purple Hills, Chimney Peak, Oraybe Gardens, Jacob's Well, underground rivers, Natural Bridge, the great mesas, battlemented peaks and mountains, arid regions, Sugar Loaves, Vermilion cliffs, sandstone walls, pottery hills, Navajo church, etc., are some of the wonders.

Near White Rock Springs, in Apache County, is a beautiful valley, which has been wholly eroded from the solid rock. At the bottom of the valley is a grassy plain, from which spring

up a few isolated buttes like sentinels. This is called the Eroded Valley; it is not the only one by many in Arizona.

The Painted Rocks in Maricopa County, near Gila Bend, are a mass covering less than an acre and rising forty or fifty feet above the surrounding gravelly plain. They are covered with carvings of every description, some evidently very ancient and some of recent date.

Among the wild animals of Arizona are the following: Elk, Rocky Mountain sheep, dwarf deer, antelope, panther, wildcat, cinnamon, black, brown and grizzly bear, coyote, wolf, fox, wild turkey, mountain quail, duck, goose, snipe, goat, Arizona lion, beaver, squirrel, Gila monster, rabbit, bat, rat, raccoon, badger, rattlesnake, prairie dog, plover, partridge, crane, crow, etc.

There are over twenty distinct varieties of cacti, and nearly all kinds are met with along sandy creek washes. The whole way is beset with cacti of varied degrees of formidable armature, from the innocent pincushion cactus, that only catches to your feet and clothing with its fishhook spines, while the other straight spines tickle you, to the horrid, wide-branching tree-cactus, with its long, glistening, barbed spines, that completely clothe limbs and buds, the latter being shed off so frequently, and in such abundance, that they form high mounds under the trees, and are often scattered about for many rods. Any of these spines are strong enough to pierce through a cowhide bootleg, and when it reaches the flesh you are gone. The retrorse barbs cause it to continue entering, the more you struggle. The best thing to do is to break off at once what you can, and let the rest fester and come away with the pus.

Almost as cruel are the bushes of an acacia, appropriately called "cat's claws," that crowd into the trail, and reach their slender limbs across the way, armed every half-inch with pairs of strong, recurved thorns, that tap your veins unawares, and cause you to add drops of blood to the perspiration that drips almost constantly from your person, while traveling the narrow valleys.

The *cholla* is one mass of spines, barbed on the fish-hook principle. It is considered particularly funny to hear of somebody's having fallen into a *cholla*. The "deer brush" resembles deer's horns. The ocotilla is simply a wattle

of stick, fifteen and twenty together, waiting to be cut down and turned into palings. The *bisnaga* is a thorny cactus like an immense watermelon set on end. One need never die of thirst where it is found.

The most striking of the Arizona plants is the so-called giant cactus, *cercus giganteus*. It is called by the natives *sahuara*, and is a grand-looking plant, with its enormously tall, pale green and prickly body, from which extend at different places in different specimens gigantic arms, reaching at times the incredible height of fifty feet, although the average may be stated as from twenty to thirty feet. This disparity in size results from the different natures of the ground on which it stands. On the hillsides, among very rocky ground, where it flourishes in spite of all reasonable expectation, it hardly ever exceeds over twenty feet, while on the high table-lands, where it receives more nourishment from the sandy ground mixed with loam, it attains its most majestic proportions. Many of these giants of the desert grow like an enormous straight column, without extending any branches, which on others issue from the mother trunk in more or less graceful forms, mostly inclining in a general bend upward.

The flower of this remarkable plant is in shape like that of all cacti; in color a pale yellow, blooming during the month of May, when it gradually fades, developing until June into a fruit called by the natives *pitahaya*. This fruit, when ripe, is in shape and size like a small pear. Its outer covering is of a light reddish-brown, which incloses a dark red pulp with small black seeds. This pulp is greatly prized by the Mexicans, who manufacture therefrom very palatable preserves, or boil it with sugar into a pleasant syrup. In the *sahuara* the wood-pecker makes his home, and also unwittingly that of other birds, who take possession of the holes he makes.

The prickly pear, or *durasnillo*, grows mostly on highlands, attaining an average height of from five to six feet, and is easily distinguished by its fleshy, round leaves, issuing almost immediately from the ground, and from one another. The leaves have an average surface diameter of from five to seven inches, and measure a little over one inch in thickness. Every year most of the leaves bring forth one or more new ones, which, while in their tender state and be-



WILLIAM CHRISTY.

fore the thorns come out, are gathered by the poorest classes and cooked, making a dish that tastes not unlike string beans.

Another interesting specimen is known in common parlance as *choyas*. These scarcely ever attain a height of five feet and branch profusely, the limbs, particularly toward the ends, bearing large branches of thorny leaves, whose sharp prickles penetrate the thickest clothing. The unfortunate who runs against them generally carries away every burr he touches, whether he wants them or not.

This cactus is especially the herder's and traveler's nightmare. It is the largest, attaining a height of ten to twelve feet, and probably the best description that can be given of it is, that it rises from the ground on two or three prickly stems about the thickness of a man's leg. These extend at the height of four or five feet into innumerable prongs, so thickly covered with clusters of thorns, which have a constant habit of falling off, that the original greenish color of the fleshy part is totally covered by the pale yellow of these millions of needles. Birds make their nests in these labyrinths of daggers, where no human finger can approach unscathed. All the *choyas* bear a small yellow fruit, but as even these are thickly covered with minute, invisible, and, when tasted, most disagreeable prickles, no use is made of them.

The aggregated cactus grows in large, dense masses, often 100 or 200 heads from a single base, the whole often of the shape and size of a bushel basket, generally on apparently naked rocks, in the proper season densely covered with beautiful crimson flowers. It is found in flower in April. The flowers are less than two inches long, much more densely covered with bristle-bearing sepals than any other species, and with only five stigmata; the naked space in the base of the tube is nearly four inches long.

Echinocactus Lecontei, f. 3-5; *Syn. Cact.* p. 18, grows in the Colorado Valley, and is in flower in April. Specimens have below eight, and upward of thirteen ribs. The lowest bunches (those developed probably in the third or fourth year) have eight radial and one central spine, all annulated. The central one is curved, not hooked; one, or even three of the lower radial ones are often hooked. The fully developed bunches consist of four central spines, the upper

and lower one of which is quite flat, five or seven lower radial ones, never hooked, three upper ones, and from six to twelve slender, bristly, radial spines. The ovary is covered with about thirty sepaloid scales.

A very singular specimen of the variegated family of cacti is that commonly called "nigger-head," or by the Mexicans, *bisnaga*; of extremely slow growth, it never attains a height of over four feet, consists of a cylinder capped by a nicely rounded top, and covered all over by the roughest, sharpest, most obnoxious thorns and hooks. Its juice is very refreshing.

On the main highway between Phoenix and Prescott, and within 25 miles of the last named city, is to be found one of the most remarkable natural curiosities of the Pacific Coast, in the shape of a quarry of travertine, or, as it is more generally called, Mexican onyx. The quarry covers the bottom of a basin surrounded on all sides by mountains; its area being a trifle over two hundred acres. In its rock almost every shade of color known to the artist is to be found, ranging from translucent to the densest opaque. Red, green, old gold, yellow, black, cream, pink, brown, white, in every combination, are found, and as the rock is susceptible of a very high polish the results obtained by its being dressed, in skillful hands, are most beautiful. Aside from its beautiful colorings, the quarry is remarkable as being the only one ever discovered outside of Mexico, in which Republic, in the State of Pueblo, are located the four onyx quarries which have heretofore supplied the world with this beautiful stone. In that country the stone is found in boulders imbedded in cement, having been originally formed as stalagmites and stalactites in caverns, while in the Arizona deposit it is found in a solid mass, from which it can be taken in any size desired.

The explanation given of the origin of the quarry by a number of prominent scientists who have examined it, is that the basin in which it is located was once the bed of a lake formed by a mineral spring, strongly impregnated with iron, copper and other minerals, and at the same time holding in solution an enormous quantity of lime. In time, as the water evaporated, under the intense heat of Arizona suns, layer after layer of the beautiful rock was formed; each of a different color, and seldom exceeding a hair in

thickness, until, in time, the entire basin was filled as it is found now. The rock is valuable for ornamental purposes, selling at the mines in Mexico in the rough for \$1.35 per cubic foot, and, when imported into the United States, 65 cents per cubic foot is added as an import duty. The quarry is owned by Messrs. Dougherty, McCann and O'Neill, who were the first to discover it, and as, thus far, several years of the most diligent prospecting has failed to disclose anything else of the kind in the Territory, they will have virtually a monopolistic control of the onyx market of the nation whenever they begin to put the stone on the market. A peculiar piece of historical lore connected with the stone is that it takes its scientific name of travertine from Lapsi Tiberius, after Tiberius, the builder of the Coliseum, in which edifice it was extensively used for decorative purposes by that emperor. But, where or how he obtained it, has always remained an unsolved riddle, the most persistent search having failed to discover the location of the quarry.

Chalcedony Park, so-called, is a tract of 2,000 acres, thickly strewn with chips, fragments and even whole trunks, of trees; the detritus of some prehistoric flood, transformed by the sybaritic chemistry of nature into chalcedony, topaz, onyx, carnelian, agate and amethyst. It is a storehouse of precious gems, measurable by no smaller phrase than millions of tons; a confusion of splinters, twigs, limbs, segments and logs, every fragment of which would adorn the collector's cabinet, and, polished by the lapidary, would embellish a crown. Some of these prostrate trees of stone are 150 feet in length and ten feet in diameter, although generally broken into sections by a clean transverse cleavage. One of these huge trunks, its integrity still spared by time and the hammer of the scientist, spans a cañon sixty feet wide; a bridge of jasper and agate, overhanging a tree-fringed pool; the realization of a seer's rhapsody, squandered upon a desert far from the habitations of man.

The lakes of Arizona are generally called *lagunas*. Other marshy grounds are called *ciénegas*. In some places they are called wells, owing to the steep banks that surround them. In other places called pools or tanks. The following are the chief lakes or natural water springs:

Apache Lake is in the vicinity of the fort of that name, near the north fork of the White Mountain River. Reservoir Lake is on the eastern base of the White mountains, and consists of a shallow basin floored and walled by lava. The water is shallow and weedy. Its maximum area is about sixty-five acres. Bartlett's Tank is four miles from Stoneman's Lake. The road leads through thick cedar, and becomes very rocky. Two and a half miles southwest of the lake are two small creeks, with wood and grass, but no permanent water.

The noted Montezuma well is fifty-five miles northeast of Prescott, twelve miles north of Camp Verde. It is in a limestone formation, on a bare, rocky, and level mesa one hundred feet above the creek and seventy feet above the water, which is clear, pure, and about a hundred feet in depth. The opening to the well is circular and about six hundred feet across. The walls are perpendicular on the northwest side. Midway between the water and the surface of the mesa, are three or four prehistoric cave dwellings, twelve to twenty feet frontage, and about the same depth. The eastern and southeastern borders of the well are within thirty to one hundred feet of Beaver Creek, from which it is separated by a rim of inclosing limestone rock, which was built up with stone buildings its whole width, and about one hundred feet in length; the walls of these old buildings yet remaining are twenty feet high in places. Broken pottery ware is abundant in the immediate vicinity. Dykes of lava are on the flat, and the well itself is supposed to be the crater of an extinct volcano.

There are a number of small lakes in the San Francisco mountains, filled with clear, cold water, and stocked with fish. In Mohave County is Red Lake, a body of water of considerable size, which derives its name from the surrounding soil, which gives color to the waters.

Stoneman's Lake is fifty-eight miles west of Sunset, and about thirty miles northeast of Camp Verde. It is about four and one-half miles in circumference, with an abundance of permanent water. It is inclosed by bluffs about four hundred feet high, with thick, heavy pine and good grass. It is very difficult to get water. The road leads through the Mogollon mountains from Simpkin's Spring to Stoneman's Lake. In the spring of the year the road through the

mountains is perfectly saturated with water, very miry, and impassable for heavily loaded wagons.

Zuñi Lake is near the eastern line of Arizona, some thirty miles from the Milligan settlement, which is on the upper waters of the Colorado-Chiquito River. It is one of the most desolate regions on the continent, surrounded by bleak, barren, desolate, volcanic mountains, with no outlet, and is nearly one mile across in its widest part. The water is in no place over five feet deep. In the southern part of the lake is a volcanic cone about eighty feet above the surface. From this cone issues a stream of salt water somewhat impregnated with saltpeter, which, by its continual flow, keeps up a uniform height. The heat of the sun leaves salt in a crystallized form.

Mineral springs are found in all portions of the Territory. Many of them are thermal springs of inestimable value. No country in the world is so richly endowed with health-restoring natural mineral waters as Arizona. Among the most noted examples of hot mineral springs may be mentioned those in Yavapai County. These springs are known to possess remarkable mineral qualities, combined with a high temperature, which render them extremely valuable in the treatment of many forms of disease. It is contemplated in the near future to build a railroad from a suitable point on the Santa Fe, Prescott & Phoenix Railroad to those springs. The climate of Arizona, being mild and dry, is very

beneficial to many persons suffering from debility and wasting forms of disease, and the location of these hot springs is one of the most favored spots in Arizona, so far as climate is concerned. And these are the only hot springs in the Union that are situated in a perfect winter climate. They are destined in a short time to become famous for their valuable qualities. At Agua Caliente are some very fine hot springs that have been resorted to from the earliest settlement of Arizona for their medicinal qualities. The great diversity of climate of Arizona, coupled with her many mineral springs, both hot and cold, will make her a veritable paradise for the invalid and those seeking rest and repose from over-activity in business.

Among the precious stones of Arizona are the following: Turquoise, opals, agatized wood, garnets, tourmaline, amethyst, topaz, agate, jasper.

There is an abundance of building material in Arizona: Limestones of the Carboniferous age, red and gray sandstones, many varieties of trachytes and basalts, marbles—blue, white, reddish, variegated, porphyries, etc., and clays suitable for the manufacture of brick. Asbestos is also found. Porcelain clays, material for cements, kaolin, soapstone, graphite, sulphur, salt, alum petroleum, alabaster, mica.

Among the ornamental stones are onyx of beautiful tints and shades, and dolomite of every conceivable hue. Lithographic stone of excellent quality is also found.



CHAPTER II.

CLIMATE AND PRODUCTIONS—ANNUAL TEMPERATURE—DRYNESS OF THE ATMOSPHERE—THE YEARLY RAINFALL—GEOLOGIC FEATURES—ORIGIN AND CHARACTER OF THE SOIL—ITS REMARKABLE FERTILITY AND STRENGTH—THE ARID TRACTS—DISPERSION OF NATURAL GRASSES—THE CATTLE INDUSTRY—IMPROVEMENT OF SWINE—SHEEP AND WOOL—GOATS—THE BREEDING OF HORSES—STATISTICS—CANAIGRE AND ITS GREAT VALUE—COAL BEDS—WONDERFUL GROWTH OF GRAIN—THE FAMOUS FRUITS OF ARIZONA—PRODUCTION OF LUMBER—INSECTS AND GROWTHS INJURIOUS TO VEGETATION—OTHER IMPORTANT INDUSTRIES—GENERAL PROSPERITY—FUTURE SOURCES OF WEALTH.

Arizona possesses as great a diversity of climate and productions as any portion of the United States. It really has three climates—tropic, temperate and frigid. The tropical section is confined to the southwestern part, where frost is never known; the sub-tropical section embraces all the great valleys and many of the smaller mesas of the southern half of the Territory and in this section the greatest population has concentrated. The productions of this section have already made the Territory famous and is destined yet to surprise the country. The frigid section is on the principal mountain tops, where snow remains the year round and where, in the future, relief from the tropical heat of the valleys will be afforded.

The climate of Arizona can be likened to no other climate in the world. It most nearly resembles that of Persia than any known country. From the summit of the San Francisco mountains, near Flagstaff, to the orange and olive groves of the Salt River Valley, every gradation of climate known to man can be found. In winter the traveler can transport himself from Arctic snow and ice within a few hours to valleys teeming with fruits and flowers more beautiful than the groves of Daphne. In summer he can in the

same short time transport himself from the heated air that surrounds the groves of the orange, the olive and the lime to elevated plateaus studded with the spruce and the pine, whose sylvan aisles are as cool and fair as those of far Cathay. Arizona, stripped of all but her magnificent climate, would still command the admiration of the world.

The table herewith shows the average weather conditions that prevailed during the year ending June 30, 1895. The data are deduced by William Burrows, observer of the United States Weather Bureau Service, from the records of an average of 53 stations reporting to the central office of the Arizona weather service, at Phoenix. The geographic distribution of stations is as follows: Four in Apache County, 10 in Cochise, 2 in Coconino, 3 in Gila, 3 in Graham, 6 in Maricopa, 1 in Mohave, 7 in Pima, 7 in Pinal, 4 in Yavapai, 3 in Yuma, and 3 in Navajo. It will thus be seen that each county is represented with data from one or more stations.

Average temperature for the year 64.3 deg. The highest temperature recorded was 118 deg., at Parker, Yuma County; on July 25; the lowest was 15 deg. below zero, at Keams Cañon, Navajo County, on the 16th of February, 1895. The warmest month was July, with an average tem-

perature of 82.3 deg.; the coldest was January, with an average of 45.2 deg.

temperature. 4. Irritating elements that may be detrimental.

The dryness of a climate depends on, (a) the amount of rainfall, (b) the amount of dew, (c) the rapidity of evaporation, (d) the porosity of the soil. The United States Signal Service report of the rainfall at Tucson, covering nearly twenty years, is as follows:

Yearly average, 11.46 inches. Latitude 32 deg. 14 min., longitude 110 deg. 52 min; altitude 2,390 feet.

January . . . . .	.71	July	2.90
February . . . . .	.85	August	2.74
March . . . . .	.69	September	1.21
April . . . . .	.26	October . . . . .	.34
May . . . . .	.07	November . . . . .	.49
June . . . . .	.08	December . . . . .	.99

It must not be forgotten that an estimate of climatic "dryness" cannot be formed from a study of the rainfall alone. A minimum fall in an atmosphere in which there is but slight evaporation, or in a region where there is almost no porosity of the soil would make a climate decidedly "damp." During the rainy season evaporation is so rapid and soil porosity so great that almost as soon as a storm ceases the atmosphere has gained its normal dry, clear state. For this reason fogs are almost unknown, and only in the latter part of our summer season, after an exceptionally large rainfall, is the slightest dew perceptible.

Atmospheric rarity is so closely connected with altitude that feet above sea-level almost convey to the close observer the state of the air. And yet it must not be forgotten that rare air is not always dry air; nor is it cold air. At an altitude of 10,000 feet in the Santa Catalina mountains, where every symptom of the rarity of the atmosphere is felt on exertion, the wild strawberries bloom in the summer on the same spot that, in the winter, is covered with snow. Again, when the clouds hang low over the mountains, this same rare air is saturated with moisture and the mountains covered for days with dense fog. This is not frequent and at lower altitudes soil porosity and evaporation prevent it, and the foothills are as dry and clear as the valleys and mesas.

The effects of heat are closely connected with humidity and rarity. The most careless observer need not be told the difference between hot dry air, and hot air loaded with moisture. The state

Month.	Temperature.						Number of days-					
	Mean.	Maximum.	Date.	Minimum.	Date.	Mean max-imum.	Mean min-imum.	Average rain-fall.	Clear.	Part.	Cloudy.	With rain.
1894.												
July	82.5	118	25	45	11, 9, 26	97.2	67.5	1.54	10	15	6	7
August	79.1	116	23	48	28-30	92.9	66.9	2.73	8	14	9	10
September	73.2	109	21	46	28	89	57.5	.69	19	7	4	3
October	66.6	107	4	16	1	82.1	49.4	.97	22	5	4	3
November	57.9	95	8	13	17	75.2	39.3	0.	26	3	1	0
December	49.3	85	1	6	11	61.7	37.5	2.31	7	10	14	8
1895.												
January	45.2	83	11, 25, 28	13	26	56.4	33.2	2.49	14	8	9	6
February	47.7	90	.....	15	16	62.8	33.3	.35	18	6	4	2
March	55.1	100	.....	13	16	71.1	37.6	.09	18	8	5	1
April	63.6	105	19	13	6	82	43.6	.08	23	4	3	1
May	72.9	112	7	28	28	86.5	53.7	.28	19	8	4	2
June	79	114	25	31	1	94.1	59	.10	18	8	4	1
Mean for year	64.3	.....	.....	.....	.....	79.2	48.3	.97	17	8	5	4

Average precipitation of all stations reporting, 0.97 inch, which is about 0.04 inch short of the normal, as deduced from records for a number of years. The month showing the greatest average measurements for all stations was August, with 2.73 inches. The prevailing character of weather is shown in the table under heading "Number of days"—202 days were reported clear, 96 partly cloudy, and 67 principally cloudy. The average number of days with a measurable amount of rain in each month was 4. The prevailing winds of the year were from the southwest.

In describing the climate four general divisions seem necessary: 1. The humidity of the atmosphere. 2. The rarity of the atmosphere. 3. The

of the latter is best described by the word "sultry," and the feelings that accompany its meaning. Even in the two months when the thermometers climb so high, the atmosphere never becomes sultry nor loses its bracing effects. The 100's and over are felt less than the 80's of a damper clime.

Much has been said of the heat and dust of Arizona, and much exaggerated. In the cities of all dry climates there is necessarily much dust at times. In the foothills, on the high mesas and in the mountains there is none. The so-called dangerous "dust storms" and "whirlwinds" are novelties of the rarest type and last but a few hours at most.

Many Eastern cities excel Arizona in these phenomena. No attempt will be made to draw conclusions from these few remarks on the climate. Physicians can easily draw their own, and the invalid has but to come here to soon regain the strength to draw one for himself.

Arizona is a land of inland seas in recent geologic times. Their beaches and shoals have been laid down at several altitudes to serve as foundation for later effects of soil-making industry. To stratifying action has succeeded the mechanics of the present geologic period, which is frictional, erosive with the wear of wind and water. The science of common things, which often goes direct to the heart of the most complex matters, has seen this fact and shows it in the names of the rivers; the Colorado, red with the suspended soil which is carried along; the Rio Puerco, dirty as the water which drains from the mire of a hog-wallow; the Salt River and Mineral Creek, proving to another sense that they carry the elements of soil.

Throughout the plateau everything is adapted to secure the maximum erosion. The raindrop falls on mountain slopes approximating the vertical, and acquires such a velocity along the steep slope that it scours away some of the soil; coalescing drops become rills to score each its little gully on the rocky steep, and rills unite to form creeks dashing along with force to roll large rocks down their beds and grain by grain wear them away, and every such grain is borne far along to do some good; creeks at last grow into rivers whose velocity is great and which have a coefficient of erosion to correspond. The Salt and Gila flow down through the mountains with

a fall of 4,000 feet in 500 miles; when they reach the plain they fall but six inches to the mile of flow; its suspended material is deposited along this portion of its course.

It is thus that the soil has been gathered by the waters, that it has been translated from the high altitudes to the lower, and by the water it has been deposited in a surface which is both level and uniform. The worth of such a soil is a matter dependent on the characteristics of mountain districts hundreds of miles away, and in this case no fault can be found, for the mountains are rich in soil constituents and the richness of this wealth is brought to the plain in the most finely subdivided form, and thus is in the best shape for the purposes of agriculture. This soil consists generally of red clay and decomposed granite with gneissic admixtures, the whole diluted with sand, which keeps the mass ever friable, and with a sufficient proportion of true humus which will be subject to an almost constant increment under tilth.

The cellular structure preserved throughout the deposit by reason of the irregularly crystalline sand has a tendency to maintain a system of capillary tubes which are inert so long as the soil is dry, but which perform a most important part when moisture is applied. As the water penetrates the mass of dry soil the capillary system becomes charged and at once begins its operation of leading toward the region of root-penetration the important chemical components of vegetable tissue stored below. The water which induces this restorative action is at the same time acting primarily upon the surface by direct molecular addition of soil. This action which goes on to a certain extent under natural conditions will proceed to a certainly greater extent under irrigation systems which are expressly designed to pass the water over the soil with a minimum velocity of flow and thus provide the most favorable conditions for dejection of the matter held in suspension.

In general it may be said that the question of the reclamation of any arid land presents itself for discussion under five topics which it is well to note. They are: (1) Geography and hydrography of the region; (2) amount of land which may be irrigated; (3) amount of water which may be used for irrigation; (4) economy of irrigation; (5) legal questions involved. The lines of divi-

sion between these topics cannot be sharply drawn, each involves consideration from several points of view and thus comes within the province of several studies. The economical and legal questions are to be settled by the intending investor and his advisers; the amount of land and the amount of water available for use upon it are to be determined by engineers; the meteorological student may, in pursuit of his researches, find himself involved in the discussion of any or all of these topics, but his special province is the hyetophysics as affected by the determining facts of nature. It is hoped that this account will show the Signal Service to have made the best use of its opportunities and to have fairly presented the case for the consideration of engineers. The aridity of the territory, great as it appears on first sight, does not by any means prove a bar to high agricultural development.

The vast plains of Arizona afford unsurpassed facilities for cattle-raising, and, consequently, millions of capital have been invested in this industry, not only by citizens of the United States, but by many from other countries, and especially from England. The result is that the vast grassy areas are black with roaming herds of cattle, from which the supply of beef, for no inconsiderable proportion of the markets of the world, is derived. That there is money in cattle-raising no one can doubt. The demand is continually increasing as the population of the various countries grows, and the trend of probability is manifestly in the direction of the raising of beef being even a more remunerative industry in the future, than it either has been, or is now, for the area of wild grass land is becoming daily more contracted as the agriculturist encroaches, with his gangplow and his harvester, on the territory over which the cowboy has so long held undisputed sway.

But, meantime, the busy workers in far-off European cities look to the great plains of the West for their supply of animal food, and, were it not for the raising of beeves on those great grass-covered plains, the table of many of the mechanics of England and the European continent would be destitute of butcher meat the year round.

Arizona has special advantages as a grazing country. Of its 113,916 square miles of area, nearly one-half consists of fine grazing land, with

an abundant supply of water, and a climate in every way calculated to promote the thrift of the herds of cattle. Wherever there are no springs or streams, it has been found that an abundant supply of water can be everywhere obtained by sinking wells, and that, too, without having to go very deep. The climatic conditions are such that the expense of conducting a cattle range is reduced to a minimum, the percentage of loss is found to be smaller than in any other country, and the rates of natural increase greater. By the sinking of an artesian well, millions of acres of good grazing land have been made available, and it may be safely asserted that, to-day, there is not an acre of grass land in the Territory that is unavailable for the raising of stock, because of the lack of water. Windmills are employed in some places for the diffusion of the water, and it is on the cards that a system of water storage will be adopted in the near future to save, and use, for irrigation purposes and the watering of stock, part of the abundant precipitation which descends during the rainy season. There are plenty of indications that the prehistoric inhabitants of the country did something of this sort with decided success, and there is no reason why the present inhabitants, with their improved appliances and, presumably, better knowledge of engineering, should not do the same thing on a much larger scale.

A remarkable circumstance in connection with the condition of the herds on the ranges of Arizona is the universal healthiness of the cattle. Epidemics, such as carry off thousands of animals in other cattle-raising districts, are almost entirely unknown in Arizona, the air being so pure, and the conditions favorable to animal life so nearly perfect, that the germs of disease have no chance to develop. There are no blizzards to destroy a whole herd in a night, and no extreme variations of temperature to cause pneumonia and kindred diseases of the respiratory organs among the cattle. In short, Arizona is the stock-breeder's paradise. It has been estimated that the grazing lands of Arizona are capable of maintaining 8,000,000 head of cattle a year. Ten years ago it was estimated that there were 4,000,000 head of cattle feeding on the gramma grass of its plains, and it is no over-estimated reckoning to judge that the number has since that time remained the same.

The excellent service rendered by Arizona's system of railroads has greatly increased the business of raising cattle, from the rapid and cheap rate at which the products of the range can be transported to market. As the branch lines now projected are gradually completed, this effect will become still more marked, and it would be no easy matter to predict to what dimensions the industry may yet grow. The profits made in this business are phenomenally liberal, and the returns rapid. The annual increase in the herds is claimed to be between 80 and 90 per cent.—a sufficient indication of the enormous profits to be made in the business.

During the past few years, breeders of stock have vied with each other in introducing into their herds new and better blood than was wont to prevail in the early days of stock-raising in the Territory, and now the cattle of Arizona will not suffer by comparison with those of any other cattle-raising State or Territory in America. The result is, of course, that the beef commands a higher price in the market, and the business of the producer becomes proportionately more remunerative.

The original cattle of the country were of Mexican stock, and the first improved blood used in the herds was of Shorthorn stock. The cross-bred animal was not only improved in color, but in form and in ability to take on fat and hold it—a desirable quality in a steer whose end is the shambles. The greatest improvement has been brought about by the importation of Hereford bulls; not that it is the more noticeable because of the conspicuous white faces they carry, but on account of the real quality they impart to their progeny. In vigor, robustness, and endurance they are the equals of the native cattle of this country. They stood the drought better than any of the improved breeds, and quite as well as the native cattle. As a grass animal—that is, one that will fatten readily and rapidly upon grass—they have no equal. They sell as well as any others in the beef market, and outsell all others in the feeding markets of the country. These reasons have induced the Hereford to be largely chosen in Arizona, and the resulting improvement in the herds has been wonderful.

Values of cattle have been constantly going down, perhaps in sympathy with the universal decline in all business the world over since 1885.

At present a far better feeling pervades all interested in the business. That there is foundation for the belief that more prosperous times await the cattle grower is evidenced by the considerable advance in prices. A year ago yearling stock was hard to sell at \$4 or \$5 per head; 2-year-olds brought \$6 to \$8; 3-year-olds and over brought \$11.50 to \$13, and there was but a light demand. To-day yearlings are selling from \$8 to \$10 per head; 2-year-olds at \$13 to \$15, and 3-year-olds at \$14 to \$19, and the country is overrun with buyers anxious to contract for May (1896) delivery.

There is a general and widespread belief that a shortage of cattle now exists and necessarily must continue for a few years. Because of this belief, which seems to be well grounded, the present outlook for remunerative prices for the product of the ranches is exceedingly flattering.

Alfalfa, on irrigated lands in Arizona, makes such luxuriant growth and possesses so many good qualities in hardiness, permanency, feeding value, etc., that it may easily be selected as one and perhaps the best of any grass that is known here. Alfalfa is recognized as a most excellent food as hay, or to feed off by grazing for cattle, and for growing and working horses, but, like red clover, is objected to by the owners of driving horses. For driving horses a sufficient hay supply is derived from the small grains cut before maturity and cured as hay. This, however, is a too expensive food for cattle feeding, and fed alone no better than alfalfa, if equal to it. The question that presented itself was to find something that may be fed with alfalfa that will be better than alfalfa alone. Corn would fill the bill, but corn is too expensive to be used for cattle-food.

The sorghums have, by experiment, been found to possess the most value to be fed in conjunction with alfalfa. In experiments made at the experiment station it was found that alfalfa alone gave better results on cattle than sorghum alone, and both combined better than either alone. Alfalfa may be classed with the nitrogenous foods, while sorghum—stalks, leaves and seed—is rich in carbonaceous elements. One supplies what the other lacks.

Experiments made in this country and in Europe indicate that a food that contains one part of digestible protein (nitrogenous compounds)



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to from five to eight parts of carbo-hydrates gives best result in feeding. This is termed the nutritive ratio of the food. The nutritive ratio of sorghum is fourteen to eighteen, while the nutritive ratio of alfalfa is about one to four,—the first too wide, the latter rather narrow,—and a combination of the two should give better results than either fed alone. Grain-hay, or corn, with alfalfa should give better results than alfalfa alone, while cottonseed meal, which has a narrow ratio, ought to make a good combination with sorghum, and experience in feeding shows that the two make a good ration.

Sorghum and alfalfa fed without grain are open to the objection that the animal does not get his food in condensed form, as in grain feeding, hence the animal cannot eat and digest a sufficient amount to make as rapid gain as when grain is fed. From two to two and a half pounds gain per day for one hundred days is a good gain for average 1,000 pound steers, fed on hay and corn in the central states and it is certain that this increase may be nearly made with selected range steers fed on sorghum and alfalfa, if they can be "broken" to eat and to feed quietly after placing in the feed yards.

The improvement in the general horse stock of the Territory has been far more rapid and permanent than is known to the casual observer. From 1883 to 1886, while horses were bringing large prices, many excellent horses of the different breeds were brought here, and their produce in the main has been carefully preserved. From Kentucky were brought the choicest specimens of the saddle breeds, as represented in the families of Denmark and Montrose; of the standard-bred trotters, by horses of Mambrino, Hambletonian and Bluebell blood; and runners of many strains, chiefly of Bonnie Scotland, Leamington and Longfellow descent. From Tennessee were brought pacers from the noted Tom Hal stock. All horsemen who have had experience with the range-raised produce of these importations concede that for endurance and intelligence they are not surpassed, if equaled, in the world.

The exceptional advantage breeders of the highest class of horses, both trotters and runners, would secure by locating in Southern Arizona is just beginning to be understood and advantage taken of it by enterprising owners. The wonderful success of the trotting horse Zombra on the

Pacific Coast is an indication of what Arizona feed and climate will produce. Distinguished horse breeders boldly assert that Arizona is producing the highest type of the horse in the world.

The range-horse industry is now passing through the most critical period of its existence. The supply is far in excess of the demand. Cow ponies that from 1879 to 1887 were in good demand at prices ranging from \$40 to \$75 each, cannot now be sold for \$15 per head on the range. The freight to any horse market in the world would exceed the price they would bring.

Under these conditions the ranchman has no inducement to keep on breeding up his stock, and but little encouragement to see that his herd does not deteriorate. In fact, in such periods of depression it is only the true breeder who does keep up the quality of his herd.

The raising of swine has become a profitable industry. The alfalfa fields are the natural home of these animals and they require little other care. They forage over it and soon fatten with a firm and heavy growth. The distance to market outside of home consumption, Texas and California, is so great as to form a serious problem to the profitable rearing of swine. Still, as shown by the table in this chapter, large numbers are raised—mainly on alfalfa. At first the breed was poor, a result of inferior Mexican stock, but now the best breeds are represented.

Wool-growing is also a thriving business in the Territory. The climatic conditions, which are found so favorable for cattle-raising, are equally favorable for sheep-breeding. There is no danger of whole flocks being smothered by a snowstorm in a few hours, but, on the contrary, all the year round, the sheep can roam over the pasturage of pine-grass on the mountain districts, or the alfalfa of the plains, and increase in numbers and avoirdupois in a way unparalleled elsewhere. As in the case of the cattle, the breed of sheep is being improved by the introduction of Merino, Southdown and Cotswold strains, with the immediate result of an improvement in the quality both of the mutton and the fleece.

Much more attention has lately been given in Arizona to raising cattle than to any other kind of stock. Sheep-raising, however, is rapidly on the increase in the northern part of the Territory. The industry has been confined principally to

those counties in the higher altitudes of the Territory, and wherever introduced has been extremely profitable. Experience goes to show that on the ranges of the southern counties, with different grasses and a warmer climate, it is less profitable. The number of sheep within the bor-

shearers, yield about 4 pounds of wool per head annually, and bring about \$1.50 a head. The annual wool clip of the Territory will aggregate about 10,000,000 pounds.

The high mountains of Arizona for summer and low valleys for winter are similar to those

NUMBER AND VALUE OF CATTLE ASSESSED IN THE TERRITORY 1883 TO 1895.

Cattle.

Counties.	1883.		1884.		1885.		1886.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Apache.....	14,700	\$147,000	(*)	.....	24,274	\$333,355	38,461	\$485,784
Cochise.....	(*)	.....	33,605	\$415,865	.....	692,628	60,492	708,886
Gila.....	7,257	131,150	8,497	100,881	9,450	162,939	15,970	201,389
Graham.....	10,088	176,540	17,167	307,984	22,086	339,629	29,217	444,542
Maricopa.....	4,481	55,772	5,974	98,740	7,680	127,679	9,586	147,832
Mohave.....	9,537	145,342	9,850	147,765	14,218	213,270	15,555	205,988
Pima.....	57,600	864,000	80,000	1,200,000	70,000	885,000	66,500	764,750
Pinal.....	14,281	251,135	21,513	Not val.	28,383	434,116	28,566	335,696
Yavapai.....	49,132	608,304	64,008	832,104	89,688	1,030,512	116,286	1,279,146
Yuma.....	1,897	18,713	2,066	22,660	2,030	19,097	3,111	34,681
Total.....	168,973	2,397,956	242,688	3,185,999	267,899	4,238,225	383,745	4,608,694

Counties.	1887.		1888.		1889.		1890.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Apache.....	54,297	\$649,484	65,472	\$699,878.94	(*)	.....	68,927	\$585,897.50
Cochise.....	73,285	879,420	73,294	769,587.00	94,021	\$819,863.12	83,792	691,041.42
Gila.....	17,101	205,528	19,984	201,196.00	42,282	431,914.00	49,733	452,645.10
Graham.....	37,089	491,767	45,541	478,180.50	36,855	375,180.00	55,623	507,438.00
Maricopa.....	9,505	124,237	12,698	167,893.00	15,514	223,808.00	23,843	231,065.30
Mohave.....	23,172	281,808	20,752	254,212.00	22,317	280,067.75	24,020	221,612.00
Pima.....	83,234	999,892	94,734	1,012,290.00	109,206	952,961.50	113,974	885,280.50
Pinal.....	34,386	408,785	31,460	330,554.70	39,347	401,432.00	40,032	348,399.00
Yavapai.....	131,259	1,608,552	145,058	1,710,323.00	159,773	2,005,151.15	172,627	1,370,814.50
Yuma.....	3,510	41,992	3,340	35,411.00	3,378	29,456.16	3,445	27,630.00
Total.....	466,838	5,691,467	512,333	5,720,526.14	522,747	5,519,833.68	636,016	5,321,823.32

Counties.	1891.		1892.		1893.	
	Number.	Value.	Number.	Value.	Number.	Value.
Apache.....	74,132	\$630,112.00	49,314	\$480,078.00	39,933	\$310,202.06
Cochise.....	95,850	756,992.25	82,122	647,075.00	45,056	316,426.00
Coconino.....	55,062	405,825.00	58,428	408,803.00	51,315	398,081.07
Gila.....	58,645	496,470.45	55,828	451,630.00	53,952	405,202.58
Graham.....	66,730	585,718.50	68,526	620,044.00	64,800	489,583.85
Maricopa.....	26,509	254,350.95	24,506	230,925.00	22,974	235,274.60
Mohave.....	29,360	252,155.00	28,572	210,096.00	26,811	200,835.79
Pima.....	121,377	960,892.12	116,604	852,097.00	49,599	347,542.77
Pinal.....	48,565	403,551.78	35,102	254,747.00	27,002	203,356.71
Yavapai.....	142,460	1,205,057.70	121,392	853,562.00	107,018	802,228.22
Yuma.....	2,250	19,461.60	3,815	38,150.00	3,352	34,203.00
Total.....	720,940	5,970,587.35	644,209	5,047,207.00	491,812	3,742,936.65

ders of this Territory is stated to be, on the best authority, in round numbers, about two millions, including the sheep owned by the Navajo Indians. Flocks of brood ewes have increased recently from 75 to 90 per cent.

Merino sheep produce about 8 pounds of wool per head annually, and command a market price of \$3 each. Mexican sheep, or coarse wool-

of France and Spain, where developed the original fine-wool sheep. Arizona fine wools, when scoured, compete successfully with the best Ohio and Australian wools. Many trainloads of mutton sheep have been shipped to the feeding grounds in the Mississippi Valley to be prepared for the Kansas City and Chicago markets, and sold at a price of from \$5 to \$6 per head. It is a

significant fact that while there was a heavy loss and a decrease of cattle during the drouth of several years ago, the sheep in Arizona increased in numbers.

Range grasses can be divided into two general classes, both of these classes being purely artificial.

1. The large number of species growing along rivers and creeks, in the close vicinity of tanks and springs and in other moist places. These grasses, although of great variety, are, with the

2. The second class and by far the more important, are the grasses that find a foothold on the mesa, along the sides of mountains and in valleys. Covering large areas, they furnish the greater part of the grass forage of the Territory. These grasses are of but a few species and include the grasses known among stockmen as "Mesquit," "Gramma," and "Saccato." Many of these grasses have hard and wiry leaves and culms, but are very nutritious and generally well liked by stock. They grow rapidly after the sum-

THE FOLLOWING TABLE SHOWS THE NUMBER AND VALUE OF LIVE STOCK ASSESSED IN THE TERRITORY FOR THE FISCAL YEAR 1893-94.

County.	Horses.		Stallions.		Mules.		Burros.		Cattle.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Apache.....	4,745	\$ 9,407.50			78	\$2,035.00			29,741	\$227,068.00
Cochise.....	3,259	53,795.00	21	\$1,260.00	296	7,750.00	70	\$468.00	43,541	306,867.00
Coconino.....	5,501	121,260.00			25	1,025.00			42,558	298,302.50
Gila.....	3,028	59,285.00			65	1,610.00			50,977	357,407.00
	2,445	52,932.00								
Graham.....	1,165	43,586.60			249	8,270.00			50,237	351,942.30
Maricopa.....	5,437	143,522.00			258	7,020.00			20,622	207,516.10
Mohave.....	1,251	57,061.75			2	50.00			23,691	178,558.50
Pima.....	4,768	83,862.00			261	6,304.00			60,694	421,162.00
Pinal.....	2,124	39,369.50			190	4,545.00			21,245	150,242.50
Yavapai.....	8,481	211,576.00			42	1,650.00			78,141	547,637.00
Yuma.....	436	9,920.00			108	3,200.00			1,845	17,519.00
Total.....	42,640	970,242.35	21	1,260.00	1,574	43,459.00	70	468.00	423,292	3,064,221.90

County.	Cows.		Goats.		Hogs.		Sheep.		Asses.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
Apache.....			288	\$288.00	211	\$ 676.56	133,388	\$173,681.90	88	\$612.50
Cochise.....			384	768.00	183	549.34	6,435	12,895.00		
Coconino.....			6	12.00	225	939.50	201,449	265,553.20	36	370.50
Gila.....			167	167.00	130	390.40	2,509	3,900.00	222	1,799.00
Graham.....			725	775.00	569	1,704.50	27,580	43,157.00	374	4,116.00
Maricopa.....					3,027	9,055.70	2,849	4,310.00	15	900.00
Mohave.....			275	275.00	103	380.00			94	486.00
Pima.....			66	91.00	341	1,189.00	1,620	2,863.00	88	504.00
Pinal.....					293	879.27	2,619	4,110.61	71	357.00
Yavapai.....	10	\$200.00	1,200	1,850.00	612	1,989.00	19,000	28,500.00	323	3,437.00
Yuma.....					164	529.00	20	20.00	12	60.00
Total.....	10	200.00	3,111	4,226.00	5,858	18,282.21	397,469	538,990.71	1,323	12,642.00

exception of *Distichilis maritima*—an almost worthless forage grass—and a few others, only found in isolated bunches. In fact, nowhere in Arizona do we find a continuous natural sod. Altogether these grasses furnish but a small part of the forage of the range, as they only grow in the vicinity of water, where their roots evidently reach moisture throughout the year; many of them are excellent forage plants so far as they go, but they cover a very small per cent. of the entire range. Ordinarily, they are kept cropped short by stock as they congregate about the watering places to drink.

mer rains, furnishing fine forage for the fall and winter months. The "Boutelouas," generally known as "Gramma Grass," are the most important of the proper range grasses of Arizona. A number of species of this Southwestern genus can be found on nearly every range of the Territory. So far as can be learned all of these grasses are readily eaten by cattle and are excellent forage.

The *Bouteloua eriopoda* (Torrey), the common "Black Gramma" of Southern Arizona, is probably the most valuable range grass south of the Gila and Salt rivers. It has been seen grow-

ing in the valleys of the Rillito and Santa Cruz and occasionally out on the open mesa, especially where protected by the mesquit, or creosote bush. It is a strongly rooted perennial with few leaves. The culms are about one and one-half feet long and seldom erect, more frequently bending to the ground and rooting at the lower joints.

The *Bouteloua oligostachya* (Torrey) is the name generally known as "White Grama," although in some localities it is called "Mesquit Grass," and in a few places "Buffalo Grass." This

places, common with other grasses of the mesas and valleys, this valuable grass is dying out, chiefly from the effects of overfeeding. Although growing on the mesas, it does the best on rich bottom land, where, in some places, it approaches a sod. In the Agua Fria Valley where, several years ago, much of the grass was of this species, it is gradually disappearing. This is one of the best winter grasses, and in its dried condition, long after it is withered and dead, it furnishes a food for winter feeding.

THE FOLLOWING TABLE SHOWS, BY COUNTIES, THE NUMBER OF DOMESTIC ANIMALS AND THEIR VALUE IN THE TERRITORY IN JUNE, 1895:

Counties.	Horses.		Mules.		Asses.	
	Number.	Value.	Number.	Value.	Number.	Value.
Apache.....	2,604	\$ 46,721.00	42	\$1,255.00	88	\$ 417.00
Cochise.....	2,875	41,338.00	218	2,887.50	52	340.00
Coconino.....	5,460	110,070.00			33	645.00
Gila.....	2,990	52,151.00	93	1,805.00	226	1,388.00
Graham.....	3,813	101,183.50	175	5,600.00	262	2,214.00
Maricopa.....	5,123	108,374.00	243	5,662.00	9	925.00
Mohave.....	2,885	53,323.00	60	2,300.00	127	635.00
Navajo.....	2,016	39,336.00	24	693.00	33	240.50
Pima.....	5,414	87,031.00	241	6,515.00	75	494.00
Pinal.....	2,170	32,899.00	129	2,495.00	35	234.00
Yavapai.....	6,690	149,396.00			280	4,413.00
Yuma.....	442	6,630.00	97	1,940.00	17	68.00
Total.....	42,482	830,452.50	1,322	31,152.50	1,237	12,019.50

Counties.	Cattle.		Sheep.		Goats.		Swine.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Apache.....	16,465	\$133,333.50	98,548	\$126,949.80	245	\$ 245.00	143	\$ 349.00
Cochise.....	51,162	358,964.00	5,620	7,740.00	858	1,273.00	237	684.00
Coconino.....	40,199	295,409.25	195,629	241,322.50			124	613.00
Gila.....	49,766	346,708.00	3,600	3,600.00	228	228.00	381	1,090.00
Graham.....	67,992	510,413.50	7,883	11,817.50	1,344	1,888.50	787	2,458.50
Maricopa.....	17,893	185,373.10	12,524	18,795.00	125	85.00	4,991	11,495.00
Mohave.....	28,478	203,663.50					167	494.00
Navajo.....	16,569	136,017.50	59,067	73,977.75	341	347.00	298	1,448.50
Pima.....	66,818	479,167.00	2,134	3,203.00	644	980.00	367	927.00
Pinal.....	25,625	182,865.00	3,300	3,300.00			347	987.00
Yavapai.....	85,565	598,955.00	16,399	24,535.00	2,463	3,149.00	713	2,043.00
Yuma.....	1,857	18,570.00			10	20.00	747	1,494.00
Total.....	468,389	3,449,439.35	404,704	515,270.55	6,258	8,215.50	9,302	24,083.00

species is widespread over the Western plains where, with the true "Buffalo Grass," *Buchloe dactyloides* (Eng.), it forms the vast sodded areas of that region. Although indigenous to many parts of Arizona, it is most abundant in the northern part, where, in some localities, it forms considerable feed of good quality. It most frequently grows in little tufts, the numerous leaves close to the ground. The culm is very slight and slender, bearing at the top one to three densely flowered spikes, projecting from the main stalk at nearly right angles. In many

The *Bouteloua racemosa* (Lagasca) is generally known to ranchmen as "Tall Grama," although in some localities it is known as one of the mesquit grasses. It is a valuable grass, but not eaten as readily by horses or cattle as the species previously described. It is widely distributed throughout the Territory and is easily distinguished from the other *Boutelouas* by its taller growth and its long raceme of twenty or more slender pointed spikes about one-half inch in length, and standing out from the stalk at nearly right angles. During the months of July

and August it is frequently found on the ranges of West Central Arizona, nearly always cropped close to the ground. Flowering culms are usually found only among cacti and in other protected places. Several other *Boutelouas* add something to the forage of Arizona. They are less abundant and closely allied to the ones above noted. Of this number, *B. hirsuta* Lagasca; *B. aristidoides*, Therber; and *B. Harvardii*, Vasey, are by no means rare.

Next in value to the *Boutelouas* are two or three species of *Hilaria*. These are very hard, rigid grasses, generally growing in bunches and known in Southern Arizona as "Gietta Grass." Further north they are not so abundant and are known to ranchmen as "Black Grama."

Hilaria mutica (Bentham) and *H. Jamesii* (Bentham) are most abundant and are recognized as being among the best forage grasses of the range. They are perennials with long, creeping root-stocks and will withstand the drouth to a marked degree. The leaves are short and rigid with little surface exposed to the dry air. The stems of culms are hard and woody. They are nutritious grasses, and with the exception of the hard culms, are eaten eagerly by cattle. The *Hilarias* are bunch grasses, generally growing in dense clumps a foot or more in diameter, and for the greater part of the year have a dull, grayish, dead appearance. After the rains, in one or two species, the old culms continue in growth, put forth new leaves and produce an abundance of excellent forage. In a number of places between the Agua Fria and Verde rivers may be seen large areas covered with these grasses. Even in the driest part of the season cattle eagerly feed upon the dried leaves and sheaths that remain upon the culms for the greater part of the year. Of the remaining species of this grass in Arizona, probably *Hilaria rigida*, a very hard and rigid grass with something of the characteristics of the above species, is the most important as a range grass.

The *Aristidas*, as a rule, are of inferior value as forage grasses, but from their wide distribution furnish considerable food, especially in their early growth. Of this genus, *Aristida Arizona* adds considerable to the early spring feed over large parts of Southern Arizona. This species is not a large grass, never growing very dense; it is found, a few culms in a place, under nearly every mesquit

and creosote bush. Long before summer is past it dries out, and in this condition is of little value for forage on account of its few leaves and sharp, rough awns. This grass, together with others of the same genus, may be known by the persistent triple awn surmounting the linear grain. As a rule, the species of this genus grow in dry sterile soil. Of several other species growing in the Territory, *Aristida purpurea* found throughout the eastern part, is of some value as a forage grass. Before it is dried out by drouth it is readily eaten by cattle. It is generally found as isolated plants here and there over the hills.

Of the two or three species of *Pappophorium* in Arizona, probably *Pappophorium Lagroidium* is of the greatest value for the range. It grows an abundance of leaves, which are not as harsh and hard as with many of the indigenous grasses. In valleys it will sometimes grow two feet or more in height, the narrow leaves sometimes a foot or sixteen inches long. It has been seen growing in a few places, and then not in any great quantities.

Of the *Panicums* found on the range *Panicum lachnanthum* (Torrey) is probably the best, so far as the amount of forage is concerned. It is most frequently found on the mountains, where it furnishes considerable early feed. It is a slender grass, growing from one to two and a half feet high, with a contracted, hairy panicle on a long, slender culm. Two or three other species of *Panicums* are of more or less occurrence on the range. Of this number *P. Bulbosum* is one of the best. This species may be distinguished from the other *Panicums* by the enlargement of the culm just above the ground. It is not very abundant but stands the drouth well, and when of sufficient quantity makes an excellent forage grass.

Muhlenbergia distichophylla (Kunth) is a strong, firmly-rooted grass, with culms from three to four feet high, and long and rigid leaves. The panicle sometimes exceeds a foot in length. It is sometimes found growing in rocky cañons, and frequently in rich valleys it forms considerable of the forage. It has been seen growing on the open mesa. It is probably the most valuable species of this genus in the Territory. In South-eastern and Eastern Arizona it is known as one of the "Saccato" or "Saccatone" grasses. On rich bottom land it is sometimes cut for hay.

There are many other grasses that add more or less to the feed on the open ranges of Arizona, but as a rule they are less abundant than the species noted, and are not as likely to be observed by ranchmen or others interested in the grasses of the Territory. Without the use of expensive drawings illustrating the species under consideration, it is almost impossible to describe a grass so that ranchmen will be able to recognize it by the description. If you wish to know something of the grasses growing on your range, it is best for you to send them to the Botanist of the Experiment Station of the University of Arizona for identification.

Report of the Staff of the Experiment Station of the University of Arizona:

Canaigre has been used many years by the Mexicans, both as a medicine and as a tanning material, but only in recent years has it attracted any attention as an article of commerce.

In 1868 a sample of roots was sent from Texas to the Agricultural Department at Washington, but it was mislaid and the analysis was not made until 1878. In 1889 Prof. Henry Trimble published an article on canaigre, in which he gives its history to that time and records some analyses made by himself and others. He states that Mr. Rudolph Vaelcker, of Galveston, Texas, published an analysis of roots gathered in 1874, giving 23.16 per cent. of tannic acid. Roots were exhibited at the New Orleans Exposition labeled "A new tanning material." Since then considerable attention has been given to this plant and a number of articles have been written, both in this country and abroad, in all of which it is agreed that canaigre is a valuable tanning material.

Among the articles which have appeared is one deserving more than passing notice: "Canaigre, a New Tanning Process," by Prof. W. Eitner. Prof. Eitner was at the head of the Vienna research station for leather industry, and a recognized authority in Europe in such matters. He has tested canaigre from the standpoint of a practical tanner. In that article he especially recommends it for its quickness in tanning, its filling qualities, and its beautiful color. He says: "I consider this article especially adapted for tanning uppers, fine saddlery and fancy leathers. It can be used alone or in connection with other materials." He also states that at the price laid

down in Vienna—18 florins per 100 kilos (about \$65 per ton)—it is quite reasonable. In fact, he has everything to say in its favor and nothing against it. The European tanners are awake to the value of this material. The German tanning school, at Freiberg, Saxony, mentions canaigre as one of the materials with which they are working and experimenting.

The supply of wild canaigre is becoming limited. Good authorities state that at the present price the supply will hardly last more than two years. "At present price" means the supply within profitable hauling distance of the railroads. If canaigre is only to be obtained from the natural supply it will be but an incident in the tanning trade. But if canaigre can be profitably cultivated, it will soon become a permanent factor, with thousands of acres of land producing yearly hundreds of thousands of tons of canaigre, and the problem will be to get the tannic acid into the market at the least expense.

The habits of this plant well suit it to hot and arid regions. Completing its annual growth in a few months, the remainder of the year it shows nothing above ground but dry and withered leaves and stalks. The deep-seated tuberous roots, however, are fleshy and full of moisture, and are capable of retaining their vitality through the long, hot, dry summers, until the rains of the following winter start in them a new growth. They grow to highest perfection and greatest abundance in river bottoms and along washes. It seems to prefer loose, sandy soil, which is flooded at times of heavy rains. In such places it frequently forms a dense, green growth, two or three feet in height, resembling, at a distance, broad acres of some cultivated crop.

The tuber-like roots are the commercial part of the plant. In habit of growth, they remind one much of the sweet potato, or even more of the tuberous roots of the dahlia. In weight they vary from above a pound to a few ounces. Some are long and slender, others are nearly as broad as long. The size of the root depends, to a great extent, upon the soil and the amount of rainfall during their period of growth. They grow in clusters of from three to a dozen, and from a few inches to more than a foot below the surface of the soil. By examining a root in late summer or early fall a number of buds may be seen on the crown end ready to start their growth after the

winter rains. The root apparently reaches its growth after the first season; however, it lives for several years, and may produce new plants and new roots each season. Possibly the large amount of tannin it contains aids in preserving it. The roots of a year's growth or more are a little more firm in texture than a potato; however, when they finally die, they become dry, hard and nearly black throughout. In this condition they are quite as hard to cut as a piece of wood, and there is a large increase in the amount of coloring matter. By boiling, the root becomes softer, but does not break open and fall to pieces, as with the potato. The young roots are nearly white on the interior. As they grow older they become dark yellowish red, from the development of coloring matter within the cells.

Samples, collected in widely different portions of the Territory, show the following composition. As old and new roots were taken together, just as they grew in the hill, the rather wide variation is not unexpected. Fully three-fourths of the roots sampled were over one and two years old:

Near Florence, sandy loam.....	35.6
Near Florence, banks of Gila, sandy, rather fine...	28.4
Near Florence, one-fourth mile from Gila, sandy loam.....	30.8
	{ 30.5
Head of Florence Canal, banks of Gila, sand.....	{ 31.9
	{ 35.5
On mesa 20 miles west of Florence, sandy loam ...	29.0
Banks of Salt River, opposite Phoenix, near ditch, sandy and hard.....	{ 31.7
	{ 22.5
Banks of Salt River, opposite Phoenix, old cane field, sandy loam	33.4
Banks of Hassayampa, near Gila, rather fine sand. {	30.0
	23.0
Banks of Agua Fria, near Gila, sand	32.7
Banks of Salt River, near Phoenix	34.3
Average	30.62

After removing from the ground, canaigre roots, if piled in large heaps four or five feet deep, will heat and ferment, and if in thin layers covered with dry earth they may keep indefinitely two or three years, but when moistened they will sprout and grow. Roots taken from a sack in the loft at our barn, where they had remained a year, were taken out when dry and corky, shriveled up and apparently dead, but when planted and moistened grew as readily as fresh gathered roots.

The amount of tannic acid consumed in the world is enormous. Sources of supply are sought on all the continents, and there is fear of

gradual exhaustion. Most of the leather in this country is at present tanned with oak and hemlock barks and the supply is being rapidly used up, as in addition to the home use considerable quantities are exported. We also import tanning material for certain kinds of leather, and this demand is rapidly growing. One of the largest imports at present is "gambier," an extract derived from the leaves and young shoots of a tree belonging to the family "rubiacea," genus "nauclea," a native of the East Indian Archipelago, largely cultivated for this purpose. During 1891 15,000 tons were brought into the United States, valued at \$1,500,000, and containing approximately 50 per cent. of tannic acid. The amount used abroad is much larger, because European tanners depend more upon extracts than do those of this country. Six tons of green canaigre will make about one ton of extract, containing approximately the same amount of tannic acid as gambier. Ninety thousand tons of green canaigre would be necessary to replace the gambier imported into this country alone. From the high opinion practical tanners have formed of canaigre, it is not impossible that it will not only supplant gambier, but take the place of many other tanning materials.

The amount exported recently shows there is a demand at paying prices for large quantities, and one of the greatest obstacles in starting an industry introducing a new product to the trade is largely overcome. There is room for a large industry in growing and shipping the roots in a dry state, but the cost of labor in slicing and drying the bulky condition of the product after they are thus prepared stands in the way of the most rapid development.

The canaigre has this advantage over the sugar cane and the sugar beet, it can be prepared for market without expensive machinery for manipulation, but as the field of production is a long distance from the places of consumption, economy in transportation demands the extraction of the valuable element and placing it in condensed form. It is important, therefore, that extract factories be established on a large scale, and that they be located on lines of transportation and where the lands in the immediate vicinity of the works may be planted to canaigre.

Investigations in the laboratory show that there is no more difficulty in extracting the tannic acid

from the roots, green or dry, than in separating sugar from cane and from beets. As in sugar-making, the extraction will have to be done on a large scale and with expensive apparatus, but the returns will justify the investment. The industry should be built on two lines, growing and manufacturing, the same as has been found most desirable and profitable in sugar production.

While the wild growth is confined to the sands and sandy loams, it is found that if the roots are planted shallow and irrigated, equally large crops are produced on quite heavy soils and the roots are as rich in tannic acid. The plant seems not to be particular as to the kind of soil, provided it is kept sufficiently moist, and it may be found that the sandy loams and rather heavy soils may prove more profitable for growing the plant than the lighter soils, owing to their greater fertility and more lasting qualities without fertilization.

It seems not to matter seriously when the roots are planted, the formation of new roots beginning in the fall, from the latter part of September and continuing on until March or April. If planted in the late spring leaves will appear and lie down at the usual time in May, when the root planted will lie dormant through the summer and begin the formation of a new crop of roots at the regular season, with no apparent advantage as compared with roots planted just before the growing season. If the soil is kept dry they may lie over until the next year, and then proceed to grow in the usual way when moisture is supplied.

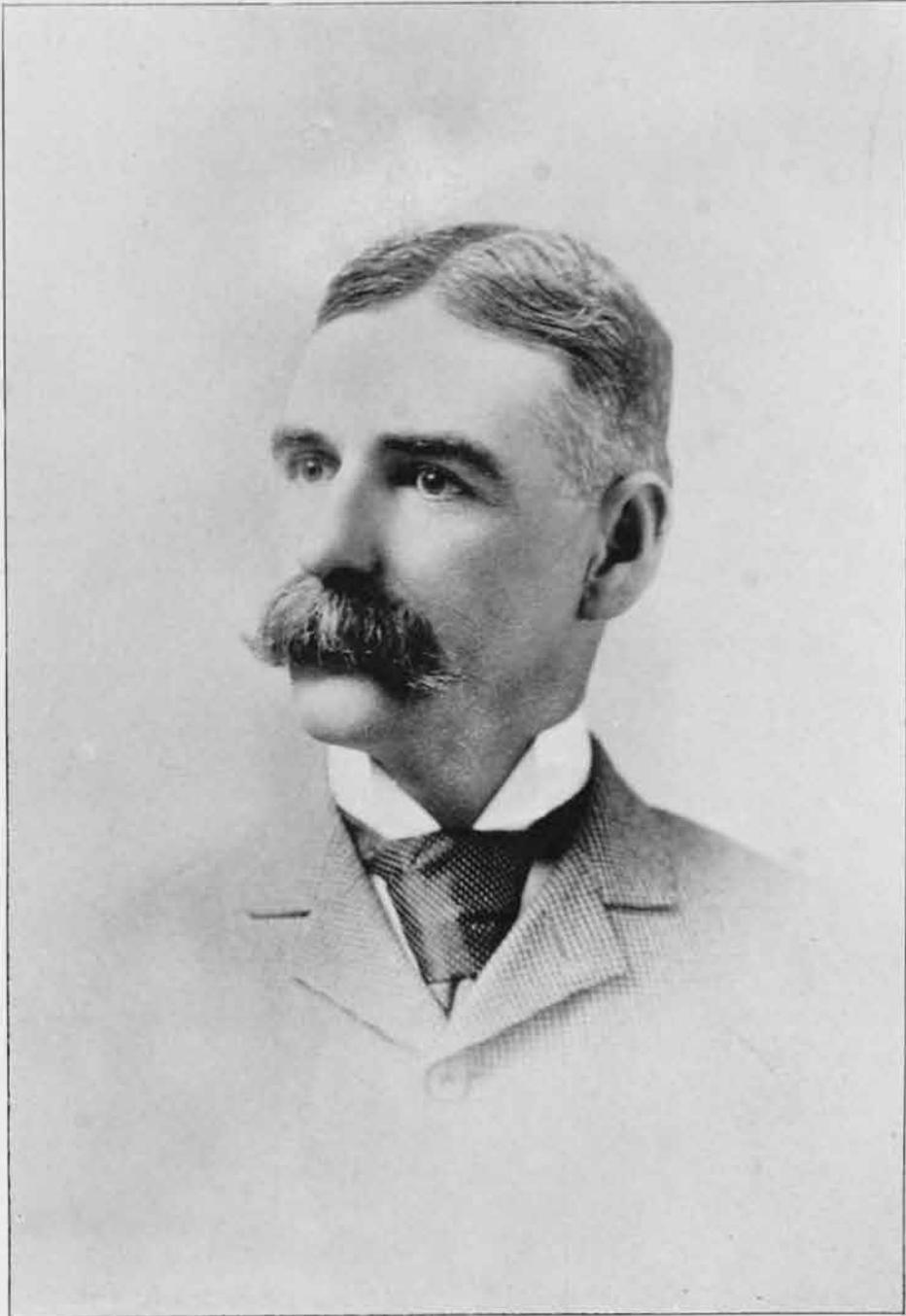
With the crop planted in the fall, as has been stated, growth above ground ceases the following May, but the roots, although they remain dormant, grow gradually richer in tannic acid during the year, but the increase is quite slow after July. With rain or irrigation in the fall the leaves appear above ground and a new bunch of tubers is started, but so far as has been observed the entire hill will produce no more new roots than would each single tuber if they are separated and replanted. In fact, it seems that the single tuber will produce a larger new crop than the entire hill. A point not yet determined is whether the one-year-old roots increase in size the second year. They certainly grow richer in tannic acid. If they continue to grow it may be found most profitable to allow the crop to remain on the land two years; if not, the crop had better

be harvested when the roots are one year old and the land replanted.

Commencing to irrigate by the first of October, a crop of 10 tons to the acre is a reasonable estimate for new land if the soil is fairly well prepared, and a good stand is secured by planting selected tubers of wild growth. The second year's crop from one-year-old tubers should reach 15 tons, and 20 tons is within the possibilities on good land, carefully planted and well taken care of.

The direct benefits of forests to water supply are so apparent that attention should be directed toward the further protection, preservation and improvement of the forest areas. The mountain chains, clothed with forest trees, are in reality the life of the arid region. They are the fountain heads which gather the snows of winter and the rains of summer, and during the growing season gradually give up their treasured moisture to the parched plains below. It is not a question of land, but a question of water. The forests which clothe the high mountains are nature's reservoirs; strip these mountains of their forests, and the result of rains is only torrential floods; the streams which have their sources on these mountains, instead of being constant streams, will be great rivers for a day and dry washes for months. The many streams which supply the Salt and Gila rivers find birth among the pines and firs of the high mountains south of the Colorado plateau. If the timber were taken from these mountains there is little doubt but the Salt and Gila rivers would be much more irregular in their flow. The preservation of the forests at the source of these streams is essential to the future prosperity of this Territory.

The President of the United States, as authorized by Congress, has the power, when petitioned by the people interested, to set apart portions of the public domain as forest reservations. Reservations of this character, when under proper supervision, provide for the immediate as well as the distant future. A forest reservation has already been established in Northern Arizona, but it is of far more importance to this Territory that a similar reservation be established at the source of our most important water supply. Forest preservation does not necessarily do away with legitimate lumbering operations. In our forests the trees suitable to manufacture into lumber are



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a small percentage of the entire growth. The remainder should be preserved from wanton destruction, and the laws of the United States in regard to forest fires most rigidly enforced.

The lumber industry of Arizona is mostly confined to the forest area south and westward from Flagstaff along the line of the Atlantic and Pacific Railroad. Large mills are in operation at Flagstaff, Williams and Challender. Smaller operations are carried on in some of the more southern mountain ranges.

The Arizona Lumber Company, located at Flagstaff, is running steadily and employing from 250 to 400 men, according to the season, and manufacturing everything that can be made in pine, including flooring, ceiling, rustics, boxes, pickets, shingles and lath, as well as furnishing a large quantity of railroad material. In addition to the steady output of a full line of commercial lumber for their regular trade, they have been doing a larger business with Southern California than ever before. The Saginaw Lumber Company is located at Williams, a point 37 miles west of Flagstaff, on the Atlantic and Pacific road. This company claims to have between 400,000,000 and 500,000,000 feet of timber under its ownership and control. They have a large planing mill plant and box factory, and also have another saw-mill plant at Challender, 12 miles east of Williams, and are turning out large quantities of ties and commercial lumber as well as boxes and other material, for the Southern California market. The market for Arizona lumber has been considerably enlarged by the completion of the Santa Fe, Prescott & Phoenix Railroad, which has opened up the southern portion of the Territory to the sale of this product. Arizona's product is now marketed east to Albuquerque and west to California. From the extent of the forests it is reasonable to expect that this industry will increase from year to year. The cut for 1894, in round numbers, was 35,000,000 feet, a considerable increase over that of the previous year. Prof. J. W. Toumey, professor of botany in the University of Arizona, says:

So far as the forests of Arizona are concerned, the Territory may be divided into two widely differing regions, viz: The northern or plateau region, and the southern or Sonoran region. In general appearance and botanic characteristics the northern region is very similar to portions of

Colorado and Utah, while the southern resembles Northern Mexico.

The northern plateau has an elevation of from 5,000 to 7,000 feet above sea level, while mountains arising from it reach an elevation nearly twice as great. It is on this plateau—more especially on its mountainous portions and when the plateau begins to break down to the mesas farther south—that the important forests occur. In the southern or Sonoran region the wooded areas are confined to the high mountains and low river bottoms.

The timber in Arizona on the Colorado plateau extends as an almost uninterrupted forest at the Grand Cañon of the Colorado, south through the San Francisco mountains to the northern Bradshaw mountains and southeastward into New Mexico. Competent judges have placed the timber on this plateau at about 8,000,000,000 feet. If to this be added the timber south of the plateau, the total quantity in Arizona can not be far from 10,000,000,000 feet. The forests of Arizona are not of scattered, stunted trees. The best authority on American forests gives Arizona the credit of possessing one of the largest unbroken forest areas in the United States.

The yellow pine (*Pinus ponderosa*) is the only species of Arizona pine covering large areas suitable to be manufactured into lumber. This is a large, beautiful tree, frequently five feet or more in diameter. Although this pine is the most abundant and widely distributed of our forest trees, the lumber products of a number of other species are of some importance, but on account of the more inaccessible regions in which they grow they have not, as yet, been utilized to a very great extent. The yellow pine is usually found at an elevation between 5,500 and 7,500 feet. At a conservative estimate it occurs in quantity sufficient to provide, at the present rate of consumption, for at least a century. Above the zone of yellow pine occur species of white pine, fir, balsam and spruce. The trees in the zone immediately below the yellow pine are mostly nut pines and junipers, intermingled with quite a variety of deciduous species.

The mesquit is the most important of the deciduous trees of Southern Arizona. It provides fuel over large areas where other trees are meager and scattered. The wood is about as heavy as oak, and the fuel value is equal, cord for cord, to

hickory. Its durability, exposed to the weather or submerged in water, is very great, hence it is of considerable value for fenceposts and other similar uses. The foliage, but more especially the ripened pods, contain a high percentage of nutriment, and makes excellent forage. This tree has a greater variety of uses than any other American tree.

The general impression is that Arizona has but few species of indigenous trees. Quite to the contrary, however, the number of native species is excelled by but few States in the Union. Among the indigenous trees are nine species of pine, ten of oak, three of palo-verde, three of ash, besides maple, walnut, sycamore, locust, alder, elder, fir, cypress, balsam, spruce, cherry, arbutus, juniper and many others of less importance. A number of trees grow to considerable size—black oak $4\frac{1}{2}$ feet in diameter, walnut 4 feet, while some of the northern pines and firs are even larger.

There is but little question that when the people of Arizona become fully awakened to the value of a number of their native trees and shrubs for ornamental purposes a much more extended use will be made of them. They will be grown in preference to the much less hardy plants from other places. Native trees and shrubs will grow with a limited amount of care and a minimum supply of water. Introduced species grown for ornamental purposes as a rule require more care and water than many can afford to give them. As a single illustration, the native white ash (*Fraxinus velutina*) is a most valuable shade tree for general purposes. It is a tree of rather rapid growth and of but little expense and is of far more value than any of the high-priced imported trees.

There is no doubt of the existence and value of the Arizona coal mines. In the White Mountain Indian Reservation are what have been called the Deer Creek or San Carlos coal fields. About 1885-6 considerable development was made, but when it was found that the coal seams were within the southwestern boundary of the Reservation the miners and claimants were excluded and all further development was abandoned. As the coal has no value to the Indians, efforts have been rightfully made to open up this portion of the Reservation to the whites, but all have thus far failed. Investigation shows the existence of

large seams of excellent coal, and as this field is the only one within a radius of 300 miles, Congress has no excuse in not permitting the citizens to enter. Valuable beds of coal are also found in the northeastern part of the Territory and elsewhere, but it remains for future investigations to show the thickness of the veins and the extent of the field. It is claimed that near Fort Defiance a vein exists nine feet thick. About twenty-one miles northwest of the Moqui villages another valuable bed is found. It outcrops for three miles and is said to be over twenty feet thick. Coal is also said to exist in the southeast part of the Territory.

Almost every farm and garden crop of the country has been planted in Arizona and found to produce as well or better than elsewhere. The yield of wheat, rye, barley and oats is equal to that of the northern tier of States, and cotton, sugar cane, sweet potatoes and all kinds of semi-tropical plants flourish with even more luxuriance than they do in the lower Mississippi Valley and the Gulf States. Everything that grows in Florida and California may be duplicated. This remarkable productiveness of the soil and climate with irrigation does not, however, represent the principal value of the lands. It, to some extent, has possibly retarded the most rapid development of the agricultural interests, which must lie in the direction of producing those special crops, perhaps few in number, for which soil and climate are better adapted, in yield, quality or earliness, than other sections of the country. It is important to have such a soil and climate, so far as cost of living and having a general supply of everything that the farm is known to produce, but this great variety of products will not bring in the largest returns to the grower.

The irrigated lands of Arizona are too valuable to be used for the production of the small grains, corn, cotton and hay, if alfalfa, the staple crops of a large portion of the country, be excepted, farther than to supply home demand, for Arizonians come into direct competition with the farmers of the nation, aided, it is true, by the ability to grow these crops at less cost and with more certainty, but at the disadvantage of a longer haul and higher freight rates to reach market.

The citrus fruit belt includes the Lower Gila and Salt River valleys, located principally in Maricopa and Yuma counties. In the growth

and marketing of citrus fruits Arizona has an advantage over California, of which she can never be deprived. In California, oranges ripen late in the winter; in the Salt River Valley picking commences in November and is concluded by the middle of December, before any possible danger of damage by frost. This early ripening also has the advantage of bringing the fruit into the market while the high prices of the holiday season prevail, a considerable time before the ripening of the main competing crop. Here no evil is suffered by the crop from the use of insecticides, there being no insect pests to prey upon them. The absence of these pests is due to the effect of the long, dry hot summers.

The orange, king of fruits, thrives in the higher sections of the valley as in few other localities of the West. The Washington navel is best adapted to the local conditions, and most of the trees planted here are of this variety. There are now planted in this belt 96,000 orange trees one year of age and over. Of this number 2,500 have come into bearing and the fruit is of the finest description—large and perfectly formed, and possesses a delicious flavor. These points of superiority were recognized by an award of the first class, given to the oranges in the Maricopa County exhibit at the Midwinter Fair in San Francisco. Lemons are grown to a limited extent. Several varieties of the fruit that have matured are of good quality, thin-skinned and juicy.

Next to the orange in importance is the apricot, of which fruit about 1,000 acres are now in bearing. The prevailing varieties are the Royal and the Newcastle. Ripe apricots have been picked as early as the 25th of April, while the bulk of the crop ripens in early May. Local conditions are especially favorable for this fruit, light crops being seldom known, and the quality being uniform and of a high grade.

This last remark is also true of peaches, the delicious flavor of the product being especially noticeable. There are over 500 acres planted to bearing peach trees, and the fruit is constantly maturing from June to Christmas. A large portion of the peach and apricot crops are dried, yet several carloads of the fresh fruit were shipped to eastern points during 1894-5. A portion of the yield has also been consumed by canneries at Phoenix and Mesa.

Of late pears have been planted about as extensively as peaches. With the Bartlett and a half dozen other varieties that might be noted production is heavy and quality, color and size are all that can be desired. Late contributions to the exhibit of the Chamber of Commerce in Phoenix averaged 1 1-3 pounds to the pear. Several varieties of apples, notably the White Winter Pearmain, are grown with success and profit.

Almonds have proved a profitable product, the trees thriving under much the same conditions as does the apricot. The paper-shell variety is most extensively cultivated, and yields about as heavily as the hard or medium shell. It brings a much higher price in the market. Improved methods of bleaching have been adopted, and in 1896 heavy shipments of high-grade fruit will be sent eastward. About 500 acres of almonds are under cultivation in the Salt River Valley.

Figs and olives are found everywhere growing by the roadside, and in the house yards as ornamental and shade trees. Of the former there are 400 acres set to orchard in the Salt River Valley. The White Adriatic and Brown Smyrna drying varieties have been tried, and samples sent abroad have received high commendation. The generous sun and the fertile, loamy soil of the Southwest develop the fruit to a degree that renders it little short of a confection and insures its success as a profitable product. The olive is thrifty and hardy, and there are a few trees in the valley that have come into bearing. These have demonstrated the fact that the tree does best when planted in an upland, well-drained, limestone soil, irrigated but little. In the parks of Phoenix, olive trees are to be seen by the score, their light green foliage contrasting agreeably with the darker shades of the lawn grass surrounding them.

Grape vines cover an area of fully 4,000 acres, and fully two-thirds of the yield is of raisin grapes, comprising, mainly, the Muscat of Alexandria, the Muscatel, Malaga, Seedless Sultana and Thompson's Seedless. The table varieties are led by the Lady Downing, the Flame Tokay, Rose of Peru, Black Hamburg and the ever-familiar and popular Mission. As the wine production is mainly confined to the heavier brands, little attention is paid to wine grapes, a few acres of Zinfandel alone being cultivated for the

manufacture of claret. Vineyardists pay particular attention to the production of raisins, and it has been proven by the test of years that the grapes of the Salt River Valley carry fully 30 per cent. more saccharine matter than those in the great raisin districts of Spain and California. Modern methods are now being used in drying and packing, and in the near future the Arizona pack of raisins may be expected to take a front rank throughout the United States. The quality of the seedless raisins is especially admirable, and they find a ready sale at remunerative prices.

Pomegranates, a delicious novelty to the greater portion of the Union, are grown to such an extent that entire carloads have been shipped to Chicago for market. Many of the subtropical fruits are grown, though only for ornamental purposes. The date palm, like the fan palm, thrives here, and dates of the true African kind ripen in excellent quality. Pineapples and bananas have also been brought to maturity.

Among the small fruits, blackberries and strawberries produce well. Each season thousands of boxes are shipped by express from Phoenix to points as far distant as Texas, the Southwest generally being supplied. The coming of the new railroad from the north will have an excellent effect upon the fruit industry of Arizona. Now the fruits shipped eastward are subjected to a long journey across the heated plains before entering the cooler uplands of Northern New Mexico. The fruits of California must ever be subjected to a similar hot journey of twenty-four hours across either the Mojave or the Colorado desert, much to the injury of the keeping qualities of the fruit. From February, 1896, however, the fruit-shipper of Central Arizona will attach his car of fresh fruit to a train that will, within three hours take it into an elevation of 4,000 feet, and thence east without the intervention of a mile of desert travel. The advantage of this can readily be appreciated. It is believed by those who have best studied this region that the entire Salt and Lower Gila valleys, nearly 2,000,000 acres in extent, will eventually be turned into a gigantic orchard, whence will be obtained a vast portion of the fruit supply of the nation. The water can be developed at comparatively little cost for the irrigation of even so great an area, while for soil and climate there is little left to be desired.

Arizona grows the following: Oranges, limes, figs, bananas, walnuts, peaches, quinces, pears, apples, strawberries, lemons, olives, pomegranates, almonds, nectarines, apricots, pecan nuts, plums, cherries, peanuts. Mulberries and other small fruits, and grapes of every variety. Of cereals and grasses, the valley produces the following: Wheat, barley, broom corn, tobacco, flax, alfalfa, buckwheat, timothy, oats, corn, cotton, hemp, sugar cane, blue grass, millet, clover, Bermuda grass. Besides the foregoing, vegetables of every kind give a most prolific yield.

Wheat, oats, corn, barley, rye—all grow luxuriantly in the valleys and on the mesas of Arizona. However, it is found that small farms of fruit are more profitable than any other kind of holdings, and hence on the higher mesas and the uplands grain and stock will no doubt in the future find their permanent home, while fruit-growing will command the attention in the hot districts of the rich valleys and the lower mesas. In other words, as certain localities in the Territory give special crops pronounced advantages, the citizens therein are devoting themselves to such specialties with most gratifying results. The citizens are just beginning to find out the possibilities of their soil and climate. Less attention is now paid to the grains than to fruit, though not many years ago the reverse was true.

There are several insects which are injurious to vegetation in this Territory. The Canaigre Beetle (*Gastroidea casea*, Lec.) both in the mature and the larva states, feed upon the foliage of canaigre. In some localities it has been very destructive, though it has so far appeared only over a limited extent of country. Its habits are much like those of the Colorado potato beetle. Spraying with Paris green is quite effective in destroying them.

The Green June Beetle (*Alcorhina sobrina*), in its adult form, is very injurious to ripening fruit—particularly to peaches, apricots and grapes. It appears in July and remains until late fall and is often an inch long and more than half an inch wide. Its grub lives in the ground and feeds on the roots of plants. The adult is very troublesome to get rid of; hand-picking, all things considered, is perhaps the most effective remedy.

The Locust Bagworm feeds principally upon the foliage of locust trees, but also upon that of

the peach, apricot, pomegranate, rose, cotton, cedar, etc. Paris green will destroy them.

The Procris Worm (*Procris Americana*, Harris) devours the leaves of the grape. They are very destructive. As they appear early they may be killed with Paris green without danger of poisoning the fruit.

The Twelve-Spotted Vine Beetle (*Diabrotica tennella*, Lec.) is very injurious to melon vines early in their growth, cutting them to the ground. The larvæ cut the roots of corn and other green vegetation underground. Spray with Paris green or London purple.

There are several species of Plant Lice (*Aphides*) which, during the months of spring and early summer, do much damage to roses and other garden plants. In large numbers they are very injurious, as they suck the sap and dwarf the growth and flowers. Dilute kerosene emulsion will rid the plants of this pest.

Scale Insects (*Aspidiotus* and *Lecanium*) are seriously threatening the fine orchards of the Territory. They have already appeared in several localities and great efforts should be made to stop their advance. There are several washes that will kill them—two as follows: This should be applied only in winter when the trees are dormant:

Resin, 30 pounds; caustic soda, 9 pounds; fish oil, 4½ pints; water to make 100 gallons.

To prepare: Boil the resin, oil and soda in 20 gallons of water until all is dissolved, now add 30 gallons of hot water and strain, add 50 gallons of cold water and the mixture is ready for use.

As a summer wash for the same purpose as the above, the following, which has been successfully used in California for some time, is recommended:

Caustic soda, 5 pounds; tallow, 20 pounds, resin, 20 pounds; potash, 5 pounds; water to make 25 gallons.

The soda and potash should be dissolved in five gallons of water; heat the tallow and resin together and add to the soda and potash. Stir thoroughly, and after allowing to stand for two or three hours, add 20 gallons of water. This wash should be made at least 24 hours before using.

The most serious fungus diseases are the southern tomato blight, strawberry blight, peach curl and the rust of oats and barley. The tomato

blight first makes its appearance by a few withered leaves toward the top of the plant, or frequently the entire plant will wilt in a day. When the disease appears it is too late to save the plant. It had best be pulled up and burned to prevent the disease, which seems to be contagious, from spreading to non-infested plants. Bordeaux mixture applied early in the season when the plants are a few inches high may be of some value in checking the blight or in preventing its development.

Much of the trouble with strawberries has been the result of improper irrigation, rather than the true strawberry blight (*Sphaerella fragariae*.) In cases when the blight occurs, the spots showing the fungus are brownish at first but soon become somewhat dry and white, with a circle of red discolored appearance. At best Bordeaux mixture is of little value in preventing this blight. Some varieties are much more susceptible to blight than others. The first year or two if beds are set upon clean land there is little danger of blight. The best preventive is to change your strawberry beds after the second year's crop has been harvested.

Of the fungus diseases with which the farmers have to contend the smut is the most easily subdued by proper treatment. This is a subject of more than ordinary importance, because of the large loss each year which might be easily prevented, at little expense, when the nature of the disease and the method of applying the remedy is understood. The two processes of treatment best known are the copper sulphate and the hot water treatments, either of which is entirely successful when properly done.

There are half a dozen different kinds of root-knot. One is the crown root-knot or root-gall, a spongy growth which occurs most frequently in the crown of trees, but it may occur down deep upon the root. In character it is soft and spongy and may be picked apart easily, differing in this respect from other knots. Nobody knows what causes it. It is therefore difficult to give remedies. The only one that seems to have done any good is to cut off the knot. The reason the tree is killed is that the knot appears at the crown and restricts or cuts off the circulation. Knots upon roots are not apt to kill the trees.

In 1855 the War Department imported several camels to be used on the deserts of Arizona.

They were landed at Galveston and taken to Arizona and California. Several strayed away and the use of the others was found to be impracticable. Teamsters shot them also. In 1876 several from California were turned loose and in 1883 were captured and turned over to a circus company. When captured the herd had increased to twenty head.

The ostrich-raising industry has been tried in Arizona with much success. On one farm, owned by Josiah Harbert, three miles west of Phoenix, a profit of fourteen per cent. was realized on the investment. The birds attain maturity at three years of age, when the hen commences to lay. The eggs are about $16\frac{1}{2}$ by 20 inches in circumference. When two years old the birds are plucked every eight months, the heavy plumes in the wings being clipped with a pair of shears and the short feathers being pulled out. About $1\frac{1}{4}$ pounds of feathers and plumes are taken from each bird at a plucking—prices from \$20 to \$72 per pound. The white feathers are the most valuable, as they can be dyed any other color. The largest and best plumes are sold by the inch and bring prices far in excess of the above quotations. The feathers find a ready market in San Francisco. Alfalfa, gravel, crushed bone and water only are given to the ostrich; no shelter of any kind. Adult birds are worth from \$200 to \$400 each. One acre of alfalfa will sustain from four to six birds.

The bee industry is also profitable. During 1893 and 1894 twenty-five carloads of honey were sent east from the Salt River Valley alone. About 4,000 colonies of bees are kept in this valley and nearly all honey shipped is the extracted product put up in five-gallon cans.

Both sugar cane and sugar beet are grown here and are quite profitable.

The first convention of farmers, fruit-growers and stockmen ever held in Arizona assembled in Phoenix on Friday, October 18, 1895, in response to a call issued by the Experiment Station and Phoenix Chamber of Commerce. The meeting was called to order on Friday morning by Dr. L. H. Goodrich, vice-president of the Phoenix Chamber of Commerce; Mr. Wm. Stowe Devol, director of the Experiment Station, was elected chairman, and Mr. Bruce Perley, secretary of the Phoenix Chamber of Commerce, was chosen secretary. Upon taking the chair Mr.

Devol explained briefly the object of the meeting and then proceeded with the programme as prepared for the occasion, consisting of papers and addresses presented upon matters of importance to those in whose interest the convention was called.

Papers upon the "Economic Distribution of Water" were read by Messrs. James McMillan, of Gila Bend, and W. S. Johnson, of Mesa, after which a general discussion of the subject followed. Judge C. W. Crouse, of Phoenix, read an article on "The Adaptation of the Water Supply of Arizona to Its Farmers," and Prof. Edward M. Boggs, of the Experiment Station, one on "Water Supply." Others papers were presented by Alfred C. Lockwood, of Glendale, on "The Prevention of Blight in the Strawberry and the Tomato Plants;" by Prof. James W. Toumey, botanist and entomologist of the Experiment Station, on "Economic Fungi," and an address by Gov. Louis Hughes on "Farming in Arizona." He closed thus:

"It took the Hebrews forty years of struggle and conquest to reach the promised land of Canaan, but it was reached. It took the Arizona pioneer forty years to wrest this land from Apache savagery, and at what a sacrifice the thousands of graves bear witness. How much our beloved Arizona is like unto that land of the olive, the pomegranate and the vine, a real land of milk and honey, and all the delicious fruits and rich breads of the earth. We are now preparing to gather the fruits of that pioneer conquest. The silver hairs of the pioneer fathers and mothers bespeak their trials and the approaching end, but they see in the vision of the future the harvest of their sowing. They hear the tramp of the millions who are coming, the rejoicing of a great and good people who will inhabit this land, and who will build monuments to their memories, and sing songs of their victories."

Arizona, during the years 1894-5, was favored with a high degree of prosperity. The health of the people was at the maximum; no suffering from drouth, storm, flood or fire, but instead there was a liberal supply of rain, which resulted in an abundance of range pasture and a profitable growth of the stock interest. There were exported from the ranges for the year, 217,213 head of cattle, giving a return of \$2,506,556, and leaving the ranges well stocked. The mining indus-

try was still more liberal in its contributions to the country. The gold output for the year was \$4,260,000, being an increase of \$2,179,750 over 1894, and \$3,257,495 over 1893. The continued low price of silver curtailed this branch of mining, the output being 1,750,000 ounces, valued at \$1,137,500, being a decrease of \$563,560 as compared with 1894. The copper production was 49,661,289 pounds, of the value of \$6,207,611.12, and the lead output \$350,000 in value. The total value of our bullion exports was \$11,955,111. Lumber, 35,000,000 feet; wool, 2,904,130 pounds; sheep, 48,596; hides, 72,500.

Agriculture and horticulture have given large returns, and in addition to the supply for home consumption the exports of hay, grain, fruit and honey were, in the aggregate, over \$1,779,000, making the total value of the exports of our stock ranges, mines and farms for the year, \$14,902,341, being more than one-half the assessed valuation of the taxable property of the Territory, and averaging more than \$193 per capita for every man, woman and child of the citizen population. A marvelous showing, and an indisputable evidence of the wealth, resources and general prosperity!



CHAPTER III.

THE ANCIENT INHABITANTS—THEIR MOUNDS—CANALS—DWELLINGS—CLIFFS—CAVES—POTTERY—
STONE IMPLEMENTS AND UTENSILS—FORTS—RUINS—OCCUPATIONS—CHARACTER-
ISTICS—DEGREE OF CIVILIZATION—WARS—ORIGIN—FATE.

The earliest white men who visited what is now the Territory of Arizona were impressed with the fact, made clear by evidences on every hand, that the country, from a remote antiquity, had been inhabited by a race of people who had unquestionably cultivated the soil, had attained a considerable degree of law and order and had erected huge semi-civilized habitations, the remains of many of which were still standing like monuments of the departed glory of their constructors. In fact, it soon became evident, upon examining the numerous remains, that perhaps two distinct races once inhabited this region at widely different periods of time. Since the earliest settlement so extensive and critical has been the research that now the customs, character and degree of civilization of these peoples are well known to the readers of our history. The traces of their occupancy of the country are of the clearest and most unmistakable character, and, while the period during which they possessed it and the time and cause of their expulsion or extinction are shrouded largely in mystery, proofs of their presence, doubtless for thousands of years, are to be found in the mounds, caves and canals which abound in the valleys through which the Gila, the Salt River, the Verde, the San Pedro and the Little Colorado pass. In some of those mounds, and even scattered around in their neighborhood, have been found fragments of pottery of a coarse, but perfectly serviceable, quality, earthen jars, or *ollas*, filled with calcined or roasted corn or beans, stone hammers and axes, and, in some instances, human skeletons. The remains of the concrete and cement buildings are sufficiently numerous to show that this prehistoric race was well skilled in the erection of

edifices suited to the country and the climatic conditions under which they lived. The outlines of numerous canals which traverse the country prove that they were also probably skilled in the theory and practice of irrigation. The contents of the caves, while valuable in assisting in the study of the character and customs of this people, are much more scanty and less suggestive than those of the mounds.

In the valley of the Gila and five miles south of that river and six miles below the flourishing town of Florence stands what is called Casa Grande (large house), one of the finest ruins of the ancient inhabitants of Arizona Territory. Though comparatively small now it was once an immense structure with many claims to mechanical and architectural excellence. Every year sees it reduced in size and grandeur by the eroding effects of the weather and, unless means are taken for its preservation, it is only a question of a short time when it will join its companion buildings in a heap of earth and decay. It was probably first seen by Cabeza de Vaca, but was not thoroughly examined and explored until about 1540, when Francisco Vasquez de Coronado, with his expedition, visited the spot. Other explorers, from time to time, saw and admired it. Fathers Kino and Mange visited it in 1694 and gave minute and elaborate descriptions of its appearance and dimensions and also described twelve other similar ruins in the same vicinity. To show the great antiquity of this and its companion structures, it is said that the Pima Indians, who then lived in the vicinity, had no knowledge, traditional or otherwise, of the erection of these buildings, nor of the people who placed them here upon the plain. However, a few hundred years was suffi-



Engraved by Robert Walker, Chicago

Yours very truly
John Jones

cient to antedate the accepted history of these Indians and also of their traditions, which, at best, were comparatively recent, and consequently the presence of the ancient people may not have antedated the appearance of the explorers so long as many have conjectured. In fact, a test quite satisfactory to scientists has been found in comparing the size and dimensions of the buildings, as they were first found by the explorers, with the same dimensions now, and noting carefully the decay that has been accomplished in that period by the elements. Then, by comparing this time with the probable time it required for the structures to reach the state in which they were found by the explorers, after having been abandoned by their owners, it is the opinion of students of the subject that the inhabitants were contemporary with the Aztecs of Mexico and the Peruvians, and were probably members of the Aztec or Toltec race, or family, or both. While it is true that their origin is a mystery, it is not true that we know but little of them. We have quite an accurate knowledge of their character and customs, and of their probable fate. In common with the Aztecs, Mound-Builders and Peruvians, they were an agricultural people, domestic in their tastes and pursuits, and were an easy mark for the fierce and warlike red Indians, who came from the North and conquered them, took possession of their homes and country and in many ways imitated their superior civilization. But it is necessary to briefly describe these ancient ruins.

Casa Grande is now about 50x30 feet, but when first seen by the whites it was 420x260 feet, and the central portion four stories in height. Then its walls were six feet thick and its interior consisted of five halls, the three middle ones being 26x10 feet, and the others 12x38 feet. The whole structure was a right-angled parallelogram, facing the cardinal points of the compass. It stood upon a slight eminence and around it were twelve other ruins, Casa Grande being the largest and best preserved, no doubt having been a sort of public building or temple for the tribe, and thereby more consequential. The walls were composed of concrete, made of mud and gravel, united by a strong cement of rude manufacture (*argamasa*—cement and *barro*—mud; in other words, adobe), but entirely efficient, as is shown by its hard, smooth surface to-day, after many centuries or rough usage. The concrete was

made into large blocks and fastened in place by cement. The walls still standing show round holes in which are found pieces of cedar poles, which supported the floors. The ends of the poles show the use of a blunt ax, possibly of rudely-fashioned metal, but more likely of stone. Near here are still seen, also, distinct traces of the great canal which brought water from the Gila River.

Father Kino says: "At the distance of an arquebus-shot (from Casa Grande) twelve other houses are to be seen, also half fallen, having thick walls and all the ceilings burnt, except in the lower room of one house, which is of round timbers, smooth and not thick, which appeared to be of cedar or savin, and over them sticks of very equal size, and a cake of mortar and hard clay, making a roof or ceiling of great ingenuity. In the environs are to be seen many other ruins and heaps of broken earth, which circumscribe it two leagues, with much broken earthenware of plates and pots of fine clay, painted of many colors, and which resemble the jars of Guadalajara in Spain. It may be inferred that the population or city of this body politic was very large, and that it was of one government is shown by a main canal which comes from the river by the plain, running round for the distance of three leagues and inclosing the inhabitants in its area, being in breadth ten varas (about twenty-eight feet), and about four varas (eleven feet) in depth, through which, perhaps, was directed one-half the volume of the river in such a manner that it might serve as a defensive moat as well as to supply the wards with water and irrigate the plantations in the adjacencies."

He also describes a ruined city located a short distance north of the Gila, which was doubtless as large as the one at Casa Grande. The walls of several of the buildings were yet standing and were about three feet thick and the large ancient canal was plainly traced.

"Six miles east of Phoenix," says Colonel Hodge, in his "Arizona as It Is," "and two miles from the Hellings Mills, are the ruins of a large town, near the center of which is one very large building, 275x130 feet. The debris forms a mound which rises thirty feet above the surrounding plain. The walls are standing about ten feet in height and are fully six feet thick. There seem to have been several cross walls, and

the whole was surrounded by an outer wall, which, on the south side, was thirty feet from the main wall; on the east sixty feet; on the north one hundred feet, and on the west sixty feet. On the north and northwest corner were two wings, perhaps guard or watch houses. On the south of the outer wall was a moat that could be flooded with water from a large reservoir fifty yards to the south. Several other large reservoirs are at different points in and around the main town, which was over two miles in extent. A large irrigating canal runs to the south of the large building, which was from twenty-five to fifty feet wide. This canal took the water from Salt River, eight miles above, and can be easily traced for twenty miles or more below. The people who excavated these canals must have had a knowledge of engineering, as they are cut on a true and perfect grade. The largest of the old irrigating canals is some twenty-five miles above Phoenix, on the south side of Salt River, near the point where the river emerges from the mountains. This one, for eight miles after leaving the river, is fully fifty feet wide. For this distance it runs in a southwest course, through hard, stony ground and enters on a vast stretch of mesa or table-land, which extends south and southwest from thirty to sixty miles, having an elevation above the river of nearly one hundred feet. At about eight miles from where this great canal leaves the river it is divided into three branches, each twenty-five feet wide, one of which runs in an east of south course, one nearly south and the third southwest, the three probably carrying water sufficient to irrigate the whole of the immense plateau before mentioned. Two miles west of where the main canal branches are the ruins of a large town, which extends along the mesa for many miles. Near the center of this town are the ruins of the largest building yet discovered. Its ground measurement is 350x150 feet, with outer walls, moats, embankments and reservoirs outside the main walls and ruins of smaller buildings in all directions. On the line of the branch canals, distant many miles from this one, are other ruins of towns similar to the others described. Below the great canal and the large ruins described, extending through what is called the Tempe settlement, are other irrigating canals of nearly equal size to the others, and which were taken out of the river many miles below the large one mentioned, and

along these are also the ruins of great houses and towns."

While many of the ruins have been visited and described, it is unquestionably true that it has been left to future explorers to make rare discoveries. In the Rio Verde Valley Mr. Leroux, of the Boundary Commission of 1854, saw and measured a ruin of solid masonry (adobe) 75x20 feet, with walls three feet thick and two stories high. He saw there the ruins of a town ten miles from the nearest water, with a canal plainly traceable over that distance. Several evident fortifications were seen on Pueblo Creek by Lieut. Whipple in 1854. They consisted of irregular stone inclosures with outer walls yet four feet high and eight feet thick and inner walls five feet thick. Pottery and adobe remains were scattered around. At Aztec Pass, about eight miles to the westward, is a fortification evidently built to obstruct the Pass. It was 100x25 feet, with walls five feet high and four and a half feet thick. On the Santo Domingo is an inclosure evidently intended for a fortification. In the reports of Emory and Johnston it is stated that the remains of twelve populous towns were found on the Gila west of the mouth of Rio San Pedro. On Bill Williams Fork is a walled inclosure with a diameter of about 260 feet, the walls yet standing nearly six feet high, and near this are several cliff dwellings and some excellent specimens of cliff-painting or printing. There are walled inclosures near Walnut Grove and on Mill Creek, the latter on the mountain top and embracing nearly five acres. Inside of the latter are the ruins of twenty-five stone buildings about 25x25 feet. On the Hassayampa River are many stone houses which will well repay more careful investigation. Not only in the immediate vicinity of Prescott, but for fully sixty miles in all directions, particularly west, are these ancient ruins found in large numbers. In the northwest part of Yavapai County and in many parts of Mohave County, similar ruins are to be seen. In almost every instance stone was used in these structures, except in cases where it had to be transported a long distance. Near the Sierra Prieta are many mounds and detached stones, besides large quantities of broken earthenware, some of which is well carved or painted and highly glazed. In the Colorado Chiquito Valley are abundant evidences of a large ancient population with many ruins similar to

those described above. In the cañons of Coconino County may be seen many of the best-preserved cliff dwellings to be found in the West. In 1872 Col. Roberts, of California, with others, described a large ruined city, which he located in Arizona Territory. This was probably in Navajo County, but may have been in Coconino County. The extent of the ruin astonished him. He said it covered about three square miles and was inclosed by a wall of sandstone about ten feet thick. The whole was situated on a mesa and so numerous were the individual ruins or houses that Col. Roberts estimated that the city contained 20,000 houses. This was probably an exaggeration, though it suffices to show the effect made on the mind of the beholder. He insisted that the place was laid out into plazas, with narrow streets uniting them and with a main and wider highway, worn deeply into the soil, extending through the middle of the city. The usual canal was there also, about fourteen miles in length. The ornamentation of the broken pottery found excited much surprise. Flowers and ornamental figures in blue colors appeared as bright as if newly made. The blocks of sandstone were properly squared and prepared for the walls. It has been conjectured that Col. Roberts was mistaken in his location of this ruined city, as well as in several of his conclusions. It is likely that much of the ruin was the work of the Pueblo Indians, and not of the ancients, though it is also probable that the Indians utilized as much as possible the works of the earlier race. In Cañon Chelley and on the Painted Desert are many ruins that will richly reward future explorers. It is doubtless true that the Indians occupied many of the ancient ruins and imitated the customs of the ancient races, thus making it often difficult to distinguish between what is Indian and what is Aztec. All the evidence tends to prove that the ancient inhabitants were superior in civilization to the Indians found here by the earliest explorers and to the Indians of the present. Whether they were a different race from the cliff dwellers or only a different tribe of the same race, has not yet been definitely settled.

Casa Grande is one of the most interesting remains of the prehistoric age to be found on the continent and has been often inspected and studied. Along the valley of the Gila, for nearly its

entire length in Arizona, ruins of buildings and irrigating canals are met with. Wherever the river forms a valley of any size it was evidently cultivated. On the upper Gila is a large and rich body of land known as Pueblo Viejo (Old Town). In this valley extensive mounds, traces of buildings, canals, broken pottery, etc., are met with in every direction; and it is certain that the entire valley—containing between 40,000 and 50,000 acres—was at one time under cultivation. Stone hammers and axes, broken ollas or earthen jars, are found in nearly all these ruins. On Eagle Creek, Bonita, and all the principal streams running into the Gila, are found the same evidences of an older and cruder civilization. On the San Pedro, near its junction with the Gila, are the remains of what must have been a large city. The foundations were of stone, laid in a hard, coarse cement, and some of the ruins show that the buildings were large and solidly constructed. Major Emory estimates that a population of 100,000 must have lived in this vicinity at one time.

In the Tonto Basin, situated between the Mazatzal and Mongollon ranges, and north of Salt River, extensive ruins are found. These are of stone, many of them showing the material dressed, and laid in cement equal to that in use at the present day. Many cliff dwellings are also found in this region, and the valleys of all the streams running into the Salt show the same style of building. On Coon Creek, at the foot of the Sierra Ancha, in this basin, are many cliff dwellings hewn out of solid rock. On the south side of Salt River, near the mouth of Tonto Creek, are also many caves in the rock, which were evidently the abode of man in ages past.

On the Mazatzal range, near the Four Peaks, are found the ruins of many stone dwellings and the remains of what appear to have been fortifications. The solid walls of the buildings that once stood on this lofty perch can be traced along the range for a distance of nearly fifteen miles. In one of the caves on the south side of Salt River the bones of a large animal, evidently those of the mastodon, have been found. One massive piece was more than three feet in length and over eighteen inches through at the thickest part. In another cave, on removing debris, pieces of cotton and cotton cloth have been discovered six feet below the present floor. These relics were in a good state of preservation, cotton

being of a fine, silky fiber. One of the pieces of cloth showed a rude attempt at ornamentation, having small eyelets worked by some sharp-pointed instrument. A piece of coarse matting, made, doubtless, from native grasses and in a good state of preservation, was also found. Numerous ruins of houses, cliff dwellings, fortifications, etc., are met with along the Verde River and its tributaries, also in the Agua Fria Valley for a distance of more than fifty miles north, east, south and west from Prescott. Nearly all these remains are of stone, showing that the ancient builders used that material in preference to the adobe or concrete whenever they could get it. Scores of them are to be seen up and down the whole length of the valley. The Verde Valley at one time must have contained a very large population. Traces of the early inhabitants can be found on all sides. Opposite the fort are a number of stone ruins overlooking the river; and two miles below, on an elevated mesa (table-land) an ancient burial ground has been discovered; and some excavations made therein show that a large number of this ancient race sleep their last sleep within its boundaries. On the Rio Bonita, about fifteen miles above its junction with the Gila, the ruins of many buildings are yet found in a good state of preservation. These structures were of a square form and were built of round stones laid in a peculiar coarse cement. On the shelving rocks along the river are the ruins of dwellings which cannot be reached except by aid of ropes, but were evidently at one time approached by stairways cut in the sandstone cliff. At the foot of the Sierra Natanes, in Graham County, there is a cave nearly 100 feet square. There is one large chamber in the center, surrounded by small rooms with doors and passages excavated in the solid rock. The walls are adorned with many hieroglyphics in red and yellow paint. At the end and nearly opposite the main entrance, a clear, cool spring bubbles up and flows in a tiny stream through the cave to the sunlight. The rock is a soft sandstone and must have taken years of labor to excavate, as nothing save some flint and stone instruments have been found in or near it. Many of the narrow valleys and cañons of Northeastern Arizona show evidence of having been once densely inhabited by a race of cliff dwellers. In the neighborhood of the Rio de Chelley and its tributaries,

as also along the streams which flow into the Little Colorado, the ruins of these cliff dwellings are numerous. In the cañon of Cosnino Creek, twelve miles east of Flagstaff, in Yavapai County, there was once a large settlement of this prehistoric race. The cañon is nearly 2,000 feet in depth, and averages from 20 yards wide in the bottom to 300 at the top. Before he is aware of its presence, the visitor is brought to a sudden halt on the bank of its dizzy depths. The walls have been rent and torn by the storms and floods of ages, and the cloudbursts and freshets of each succeeding year see its depth increase. Along the sides of this rocky gorge the shelving layers of rock project, forming what may be termed small terraces, in such a shape that one overhanging ledge forms a roof for that below it and a floor for that above. At points where these terraces enlarge, the ancient people built solid stone walls reaching from one shelf to another, and also side walls, thus making a secure retreat. The height of the wall varies with the distance between the overhanging layers of rock, being from three to six feet. The remains of two tiers of these cliff dwellings can be traced along the cañon for nearly five miles. They occupy a line along the sides of the gorge, midway between the level of the surrounding country and the bottom of the chasm. They are all provided with one opening, which doubtless served the purpose of door, window and chimney. They are difficult of approach and some of them could only have been reached by ladders. Save a few rude domestic implements of coarse earthenware, nothing has been found to indicate the character of those who once inhabited them. What possible pursuit the people who lived in this gloomy chasm could have followed is a mystery. There are no farming or mineral lands in the vicinity, and the game could not have been sufficient for so large a population.

And now the question occurs: Who were those people who built imposing structures, dug immense canals and redeemed from the desert such vast stretches of land? Whence did they come, and what has been the cause of their extinction? Did war, pestilence, famine or some mighty convulsion of nature destroy them? Time has nearly destroyed evidences of their existence. As to their religious beliefs all is conjecture, but from the few hieroglyphics which

they have left behind it has been supposed they were sun worshipers. As to their pursuits and mode of life, it is clear they were a pastoral and mining, as well as an agricultural people. The evidence is conclusive that many of the rich gulches in the Sierra Prieta range were worked for their golden treasures ages ago. That this unknown people who have left such interesting remains of their skill and industry behind them had made considerable progress in the arts of civilization there can be no doubt, and their condition was materially different from that of the Zuni and other Pueblo Indians of the present day. They left nothing to show they had got beyond that condition which may be best expressed by the word semi-civilized. The age in which they flourished is as yet a matter of much speculation, but from the total absence of anything like metal tools or instruments we may conclude that its antiquity is great. That they were subject to constant attack and were surrounded by enemies, would be judged from the style of their cave dwellings and fortifications in the mountains. These were evidently built for defense, and from the commanding positions which they occupied, it can well be imagined the people were always on guard against a sudden attack.

Some have advanced the theory that the foe against whom they were ever on the alert was the Apache, and that he at last compassed their destruction. While this is uncertain, it is generally accepted that the red Indian (possibly the ancestors of the Apaches) drove the ancient people from their homes and were thus the cause of their disappearance from this country.

On Beaver Creek, which empties into the Verde four miles above the fort, the cliffs on either side are lined with cave dwellings. They are walled up in front, resembling the rocky bluffs out of which they have been excavated, and were no doubt reached by ladders which at night were drawn up by the occupants. Large cisterns, made of cement and still in good state of preservation, are found near many of these dwellings. One of the caves is eight feet across its front and nearly 100 feet above the base of the cliff. The interior shows a number of rooms cut out of the rock—a coarse kind of felsite. The wall in front is pierced by loopholes, through which a view of the country for some distance around can be obtained. On Oak Creek, near its junction with the

Verde, there rises a round, rocky hill, which is literally honey-combed with small rooms of the prehistoric remains to be found in the Territory. In fact, along the entire length of the Verde, to its junction with the Salt, cliff dwellings and the ruins of stone houses are of frequent occurrence. They all show a uniformity in form and structure, and all about them are scattered quantities of broken pottery. Occasionally a stone implement of some kind is unearthed, but no metal instrument has yet been discovered in any of them. In Chino Valley, twenty miles north of Prescott, many interesting stone ruins have been discovered. Some eighteen or twenty may be seen in this valley. At one place there five ruined houses are surrounded by a walled inclosure. Several human skeletons (man, woman and child) have been exhumed from them, and also many large "ollas" filled with charred corn and beans. The doors and windows of these dwellings were partially walled up, evidently as a protection against a foe who had besieged the inmates, who, there is every reason to believe, met a violent death. A little farther north is a large stone building on the top of a hill, evidently intended, judging from its size and position, for a temple, or other public edifice.

In the vicinity of Walnut Grove, twenty-five miles south of Prescott, the ruins of a large stone building are found crowning the elevated mountain tops. On the Hassayampa and all through the mountainous country south of the Prieta range these ruins are encountered everywhere, and were evidently built on their commanding position by people constantly harassed by foes. That the race who left these ruins behind them followed the business of mining as well as farming is proved by the gravel-beds of the Hassayampa, and the large pine trees, whose age is numbered by hundreds of years, found growing where the ancient miner once searched for the yellow metal, will give the reader a faint idea of the ages that have elapsed since he occupied the land. Prescott is built, it is believed, on the site of a prehistoric city, and the many relics of its former inhabitants which are occasionally brought to light serve to strengthen this theory. Near Fort McDowell, above the junction of the Verde with the Salt River, are the remains of a large fortification, and near it the outlines of an immense irrigating canal. This canal brought

under cultivation a fine body of rich land. Near this the bones of a man estimated to have been over seven feet tall were unearthed. That the ancient race were of this gigantic stature is not probable, as bones exhumed in other localities would go to show that they were not above the ordinary size. The skeleton was probably that of an Indian. The valley of the Colorado Chiquito shows traces of mounds and irrigating canals over its entire extent, and it is certain that a large population once flourished there. Near Tempe, in the Salt River Valley, are found the remains of extensive buildings, which are supposed to have been even larger than the Casa Grande. They are now a mass of mounds, but the foundation of one which has been traced measures 275 feet in length and 130 feet in width. Excavations made in these mounds have brought to light several ollas filled with charred bones and many stone implements. The mounds cover a wide area and are no doubt the remains of a large city. The marks of a canal are traced from the ruins to the banks of Salt River, showing how the water was brought to the ancient Pueblo. All over the valley of the Salt River and an immense plain which stretches between it and the Gila, west of the Superstition mountains, the ruins of dwellings and the lines of old canals are plainly discernible. Everything goes to show that this fine valley was at one time thickly populated; and where to-day the American farmer cultivates his fields and herds his flocks, the ancients did much the same, centuries ago.

The race that once dwelled in the valleys of Arizona were no doubt Toltecs or Aztecs, and many learned theories have been advanced as to their origin and history, but it is mainly conjecture and speculation. They lived and labored and passed away, and a new and more enlightened civilization has redeemed the land, but there will always be a haze of romantic interest about these early Arizonans.

It has been estimated* that the section of country occupied by these people was in extent about 400 miles long and 300 miles wide, extending into Arizona Territory and several of those adjoining, particularly Colorado and New Mexico. It is also estimated that this section of country was occupied by these people during the twelfth

and thirteenth centuries.* The fact that these people, in a comparatively short space of time, left their old homes forever, the fact that many of their latest dwellings and other structures were evidently constructed to repel the attack of a savage foe, the fact that so many of these structures bear evidences from their more or less complete annihilation that they were destroyed as the result of war and conquest—are strong evidences that their owners were overthrown and driven away by the larger, fiercer and more warlike Indians, who took and retained possession of their country. No doubt many were butchered, and finally the remnant took refuge, first in the cliffs and on the ridges, and later with their kinsmen, the Aztecs, or Toltecs, in Mexico. They had not the stature of the Indian, being, on an average, several inches shorter and correspondingly lighter in weight, and as they were not familiar with the arts of savage warfare, they were, though many thousands in number, so decimated and harassed by their final conquerors that they abandoned their country and sought the protection of the larger population in Mexico. Thereafter the Indians remained the undisputed possessors of the soil until the stronger white man, in turn, subjugated them by the superior arts and numbers of populous civilization.

The Apaches, of all the Western tribes, were the strongest, fiercest and most successful in their struggles for supremacy. That is, they were found so by the first settlers and the remainder of them are so at the present day. This may be accounted for partly by their struggles with other Indian tribes; but, we judge, more particularly by probably a century of warfare with the ancient inhabitants, whom they finally conquered and scattered to Mexico and in the subjugation of whom they became proficient in the science of aboriginal war. It is possible, in fact, highly probable, that there should be an amalgam of the two races, and it has been intimated that the Pima, Zuni and Moqui Indians of the present day and others are perhaps a cross between the ancient inhabitants and the red Indians, inasmuch as they possess many of the characteristics of both peoples.

Many writers have contended that comparatively little is known of the character and customs of these early races, in spite of the fact that, ow-

* Native Races of the Pacific Coast.—Bancroft.

* Baron Von Humboldt.

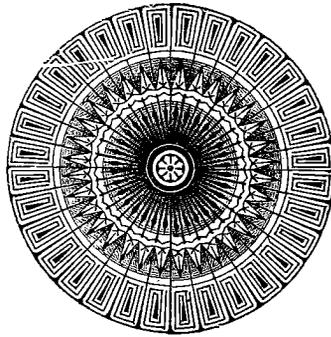
ing to their primitive habits and semi-civilized state, they could not have possessed a great diversity of pursuits nor a complicated form of government. Barring the two items of their origin and their fate, we know enough to enable us, as it were, to look down upon them in their daily life and see their true habits and character. It is known of the Toltecs that they dwelt in separate houses, which were inclosed on all four sides, that they lived in towns with streets of more or less regularity and that the public buildings, temples, etc., were usually near the center of the villages and were much larger and more pretentious. This description corresponds with the earliest and present appearance of many of the Arizona ruins. Of course the cliff dwellers are not here referred to, though they may have been the remnant of the ancient inhabitants, or Aztecs, who, to escape their savage pursuers, sought the cliffs and the narrow and elevated ridges. The Aztecs were not national in their public life, but largely commercial, their terraced dwellings, usually inclosed on three sides only with the open side toward the rising sun and capable of sheltering a community instead of a single family. Evidences are found in many parts of Arizona Territory of the presence here, in ancient times, of the Toltecs, as well as the Aztecs, and hence most writers assume that at different periods both tribes occupied this soil, and this view is probably correct. At least, this view reconciles all discrepancies.

What, then, do we know of the ancient inhabitants of that Territory? Their buildings were set true to the cardinal points of the compass; the walls, the windows and the doors slanted slightly inward, as may be seen at Casa Grande; the people were mound builders and no doubt used wood largely in their structures; they worked the mines for the precious metals, which they probably worked into charms, talismans and other ornaments; they had passed in civilization the tribal state and lived in inclosed and roofed houses in villages which were laid out into streets and included public buildings, devoted to law and order, to religion and perhaps to education; they raised corn, beans, squashes and other vegetables, and owned domestic animals. They cultivated a plant from which cotton was obtained and spun and woven into cloth. They lived in fixed habitations on the great agricultural plains,

where their crops were grown, their flocks were herded and where they dug immense canals to irrigate the soil from the adjacent rivers. We know how they buried their dead; that they believed in the immortality of the soul; that they made a rude but serviceable pottery, often skillfully carved and richly painted; devised primitive hand mills, in which their corn and other grain were ground and constructed roads with as much skill as they employed in digging their irrigating canals and moats. They built fortifications and forts, erected huge mounds, the uses or objects of which are mainly unknown to us, employed stone weapons and utensils, had a means of communicating their ideas by carved or written figures, characters and letters and domesticated a number of wild animals. From these generalizations it is easy for the mind to go into particulars without any danger of failing to arrive at true conclusions as to the customs of these people.

What else in general is there to know of the customs and degree of civilization of these people? And yet there are writers who say all is conjecture. It is true, we know nothing of their origin or whether they were Aztecs, Toltecs, Tezucans, Peruvians, Mound Builders or Cliff Dwellers. As these people were about contemporaneous and were quite closely related—cousins, in fact—what great difference does it make to which of these branches of a great race they belonged? The writer of this chapter does not agree with the view that the ancient inhabitants were the aggressors, advancing steadily from the south and slowly and surely pushing the Apaches back into the mountains and taking possession of the valleys. Such a view is incompatible with the domestic habits of the Aztecs, with the warlike character of the Apaches and with the final abandonment of the country by the former race. The authorities agree that before they finally abandoned their country they first fled to the mountains, cliffs and cañons, and that, being still pursued, they sought safety at last in Mexico. But to do this they had to leave the valleys in Central Arizona and fly northward to the great cañons and mountainous regions of Colorado and Colorado Chiquito rivers. It has, therefore, been concluded by some writers that their conquerors came from the south. But this view is inadmissible. They came from the northeast and swept down on many bloody excursions until

the ancient inhabitants fled, regardless of direction, to places offering the greatest assurances of safety—the gulches, cliffs, cañons and mountains of Northern Arizona. But the savage Indian—the dreaded Apache—remained, and of him we have yet to treat.





Joseph Bowyer

CHAPTER IV.

THE INDIAN TRIBES—THEIR LOCATION—CHARACTERISTICS—OLD INDIAN TOWNS—THE APACHES—
EARLY WARS WITH THEM—ARIZONA AN INDIAN NAME—LEADERS OF THE APACHES—INEZ
GONZALES—INDIAN MINES—MANY BLOODY INCIDENTS—ACTION OF THE TROOPS
AGAINST THE INDIANS—RAIDS OF THE APACHES—CROOK AND MILES—
SUBMISSION AND REMOVAL—RESERVATIONS—PRESENT CONDITION.

The most interesting history of Arizona that could be written would be the one which would record the depredations of the Indians, their raids upon the flocks and herds of Sonora, their ambuscades of travelers and emigrant trains, their blood-curdling treatment of captives—male and female—and their pitched battles with the whites. Could an accurate and complete history of this subject be written it would constitute an immense volume and afford food for the most serious reflections as to the hardihood of the pioneers and the sullen and unquestioned bravery of the Indians. It will never be known how many travelers and prospectors have been put to the torture in the mountain gulches or at the Indian villages. Could the mountains and valleys speak they would mention the names of thousands who disappeared years ago never again to be heard of upon earth, and who met their deaths under the agonizing tortures of the revengeful savages.

When the emigrants began to cross the plains to California from Missouri, Arkansas, Texas, etc., it was a frequent occurrence to have the whole party massacred by the watchful savages. Broken wagons, boxes and scattered human bones left by the wolves would be all that remained to tell the tale. Before that the peaceful valleys of Sonora would be aroused some night by the terrifying cry of Apaches! Apaches! and when the sun arose a score of dead, many missing children and women carried into fearful captivity, and herds of cattle, horses and sheep gone would testify of the success of these mid-

night marauders. And since the Territory has been settled within the last forty years, who can tell of the deaths, the tortures, the agony that have been endured by the brave pioneers?

The Aztecs or their contemporaries were probably the first human beings to inhabit what is now Arizona. How long they lived in the beautiful valleys of the Gila, Colorado and their tributaries will never be known. They were very numerous and attained a high degree of civilization, and were still here, most of authorities agree, about the twelfth and thirteenth centuries A. D., when they were driven out by the red Indians, the ancestors of the Apaches probably, though this is uncertain. When the light of recorded history falls upon this locality the red Indians were possessors of the soil. The early missionaries and explorers found the Navajos north of the Gila in the western part of the Territory. The Pimas and Maricopas were on the Gila and its tributaries; the Yumas were on the Colorado at the mouth of the Gila; the Papagos were on the Santa Cruz. According to tradition the Maricopas once resided at the mouth of the Gila, but were driven eastward nearer the Pimas by the Yumas, who, it is claimed, came from farther down the Colorado nearer the Gulf. It seems, also, that the Apaches, Cuchans, Cocopas and Yumas were closely related. Early missionaries spoke of the Genigueh, Chemeguabas, Jumbuicrariri and Timbobachi as living west of the Colorado, and they were no doubt small local bands—members of the larger tribes, which occupied a large stretch of country. Father

Kino spoke of the Quiquimas, Coanpans, Bajiopas and Cutganes living on or near the Colorado. A band called Soones lived on the headwaters of Salt River and were closely allied to the Pimas. The Moquis seem to have lived in the eastern part on or near the Gila, and probably in the northeast. It would seem, then, that the earliest principal tribes were the Yumas, Cocopas, Pimas, Maricopas, Moquis, Mohaves, Papagos, Navajos, and probably the Apaches, Hualapais and a few others. These, in turn, were subdivided into smaller bands under sub-chiefs and had some special name, derived from the locality occupied by them. The Papagos were really Pimas. It is said that the "Seven Cities of Cibolo" were named Cibolela, Moquino, Pojuato, Covero, Acona, Laguna and Pobla. These seven cities, it is conjectured, were situated where "Old Zuni" now stands. Allowance must be made for conflicting accounts due to imperfect information given to the missionaries and explorers, and to the fact that the lapse of twenty or thirty years was often sufficient to change the numerical strength and the locality of the tribes of Indians, which seemed to be continuously at war. For instance, early accounts place the Maricopas on the west bank of the Colorado and later on the Gila near its mouth, and still later near the Pima settlements. The Moquis seem, also, to have changed their location from the Colorado to other parts of the Territory.

It has been said with evident truth that there is no portion of the United States of equal area where so many tribes of Indians have lived as in Arizona. Although in missionary times the Yumas were at war with the Maricopas, and had been for a long time, and were long afterward, their languages prove that the two tribes were once one and the same. The same is true of the Hualapais and Apache-Mojaves. The Aravapai-Apaches have a different dialect from the other Apache branches and from all other Indian tribes in the Territory. The Cayoteros, Chiricahuas and Tonto-Apaches speak a similar dialect. The Pahutes, Savints and Supies speak different dialects. The Pimas and Papagos have a similar language.

*About the year 1780, the Santa Cruz Valley was numerously peopled by Indians from Ari-

vaca (Chervac, meaning rotten ground) to Tucson (Chuke-Zone, meaning black spring). There were other large settlements of Indians in the vicinity of what is known as Blue Water Mountain, north of Picacho, at which point the Jesuits established a mission in or about the year 1785, but before the Jesuits got the mission fairly started the Papagos and the Pima Indians had domestic difficulties in regard to the new custom of cutting the hair short, which the Jesuits compelled the Papagos to adopt.

The Papagos and Pimas belong to the same tribe, talk the same language and have the same tribal customs, with this exception—the Pimas wear their hair long. They considered that those Indians, now known as Papagos, disgraced themselves and their tribe by cutting their hair short, and thus the family quarrel was created. The Papagos were then compelled to leave the Pima country and retire to the Santa Cruz, and the Jesuits finding they had no protection had to retire with them. The name Papago means in the Indian language, "belonging to the Pope."

For 200 years prior to the establishment of the little mission at Pichaco, the Apaches and Pima Indians were deadly enemies. Many times I have listened to the old Pima Indians relate the hand to hand combats which their forefathers had on the plains with the Apaches; how they used to send out a number of their strong young men, armed with club and shield, to encounter an equal number of Apache warriors, and how the multitude used to cheer when either side would be victorious.

As to the name Arizona, there is very little mystery about it. If a person feels like traveling eighty-five miles southwest from Tucson to a place called Banera, west of Sasabe about eight miles, and south of the boundary line about one mile, his curiosity may be gratified. At that point about 300 years ago, lived a great many Indians, and in the vicinity is a small creek, which the Mexicans now call Socalito, but which the Indians call Aleh-Zon (meaning young spring). At the head of this creek is a spring, but during rainy weather other small springs start up, hence the name. This large village the Spaniards destroyed, about 100 years ago. At the present time there are only a few hundred Indians who live there, and from the village and creek Arizona received her name. It has been

*Isaac D. Smith in the *Citizen*.

stated that Tucson means Blackwater. The Indian name of blackwater is Chuke-suatic.

It is curious, but nevertheless a fact, that the first horse seen by the Pimas or Papagos was in the hands of the Apaches, and the tradition is that one Apache, on horseback, cleaned up a village of several hundred Pimas. They had never before seen a man with two heads and four feet. The small village which this one Apache and horse devastated was situated about six miles south of Salt River, and due south of Tempe, and was under the government of a great chief called Cox-a-makum (meaning doghead). It is the tradition that this chief killed in one day, single handed, twenty Apaches, with only his club and shield. The Apaches lost their head chief.

The Apaches have the reputation of having been the most hostile and treacherous to the whites of any tribe between the Rio Grande and the Pacific. It was the conduct of unprincipled traders and emigrants to sow the seeds of intemperance and vice among them, which afterward created most of the difficulties experienced. These men defrauded them of their property, and, on the slightest pretense, took their lives. That the Indians felt the deepest hatred toward the Mexicans is true, and they certainly had reason for entertaining a strong antipathy to that people. Acts of treachery of the grossest and cruelest description were practiced by the Mexicans toward them; and, though years passed away after these events occurred, they were not forgotten by the Apaches. The desire of revenge, or, as we should term it in our own case, of retributive justice, seemed, instead of diminishing, to acquire increased intensity, with the lapse of time. But bad as the conduct of the Mexicans may have been toward these Indians, they never were guilty of a more fiendish act than one perpetrated on them by an Englishman, about fifty years ago, in the northern part of Sonora. The particulars as related are briefly these: It seems that in consequence of the depredations of the Indians, the State of Sonora offered a premium of one hundred dollars for each Apache scalp. A disgrace to his nation, named Johnson, actuated by the reward, induced a large party of Apaches, men, women and children, to assemble around a quantity of goods, which he had brought among them os-

tensibly for the purpose of trade. He had concealed beneath some saddles and flour bags a cannon heavily loaded with shot and a piece of chain, near which was stationed a man, pretending to smoke. At a signal given by Johnson, this man suddenly uncovered the breech of the gun and touched it off, the rest of his party at the same time discharging their small arms among the terrified Indians, who fell on every side. When the survivors had collected their senses, and saw the Americans preparing for another volley, they rallied, and, being the larger party, put Johnson and his crew to flight. A skirmish afterward took place, in which the Indians met with further loss. After so base and villainous an act, it is not surprising that the Apaches should look upon all white men as their enemies, whether Mexicans or Americans.

The Copper Mine Apaches about 1850 occupied the country on both sides of the Rio Grande, and extended west to the country of the Coyoteros and Pinalenos, near the eastern San Francisco River. This was their proper home, though their incursions extended far into the States of Chihuahua and Sonora, where, during portions of the year, they resided. A favorite place of resort for them was near Lake Guzman, to the west of El Paso. They did not extend more than four or five days' journey north of the Gila. From the best information obtainable, their numbers were steadily and greatly reduced. Omitting those east of the Rio Grande, it was believed that they could not muster three hundred warriors. This information was derived from Gen. Condé, and from Mexicans who had long lived on the frontier, having frequent intercourse with them at Janos, and who knew all their chiefs. American authority placed their numbers much higher, estimating them by thousands, instead of hundreds. But notwithstanding their depredations, they had been from time to time at peace with the Mexicans, receiving from the military authorities at Janos monthly supplies of corn and other articles of food. Hence the latter had a better opportunity to judge of their numbers than we had.

Between the Sacramento Mountains and the Pecos were other Apache tribes more numerous than those in question, from whom they were separated by an uninhabited desert region between eighty and one hundred miles in width,

extending from the Sacramento mountains to the Rio Grande. The country which they occupied was believed to be one of the richest portions of New Mexico. It has an excellent soil, is well watered and timbered. They kept up a show of friendship with the settlements by sending their old women to trade and beg; but the warriors rarely showed themselves.

The Apache nation as a whole was one of the most widely disseminated on the North American Continent, and embraced a great many tribes. Nor are we even able to say with certainty whether all the tribes said to be of the Apache stock belong to it or not. It is only by a comparison of their languages that their ethnological position can be accurately determined. In general terms, they may be said to have extended from the Pecos on the east to the desert bordering on the Gulf of California (the limit of which is the valley of the Santa Cruz, south of the Gila), and to the Colorado, north of that river; or from the 103d degree of longitude west from Greenwich to the 114th. From north to south they extended from the country of the Utahs (Yutas), in latitude 38 deg. north to about the 30th parallel. Beyond this they had no fixed habitations, though they ranged about two degrees further south in their predatory incursions in the states of Chihuahua and Sonora. On the Colorado River of California were many tribes only known by name; but whether they were allied to the Apache nation or to some of the California families is not known. The great Navajo tribe, the most populous of any west of the Rocky mountains, in the district named, belongs to the Apache family.

In point of honor the Apaches must rank below the Indian tribes east of the Rocky mountains, dwelling on the tributaries of the Mississippi and Missouri rivers. They are without that dignified bearing, and those noble traits of character, which characterize the latter; and, as they perform no labor, not even that of hunting, their occupation was theft and murder. Mangus Colorado* and a few other prominent chiefs who lived well, and had the lion's share of the plunder, were good looking; and a finer set of children than those of Mangus, of Delgadito and Poncé were not often seen. They depended

*Mangus Colorado (Red Sleeves), Delgadito (Slender), Coletto Amarillo, (Yellow Tail).

upon what they could steal from the Mexicans and Americans on the frontier for a subsistence. The supply thus obtained consisted almost exclusively of mules; and when this failed they resorted to the bulb of the maguay. In fact, this may be said to have constituted at all times the food of the majority; for the chiefs took good care that they at least should have mule meat when there was any.

In saying that individuals were fine looking, reference is made to physical development. There is not a mild or amiable face among them; on the contrary, they had a treacherous, fiendish look, which well expressed their true character. They were in general poorly clothed, a majority wearing deer skins tied about them, without any attempt to fashion them into garments. If a man could get a shirt, he seemed quite content without any other garment. Most of them wore long deerskin boots, with stout soles, turned up at the toes, the legs being either fastened around the loins or turned over at the knees. These were well made, and exhibited more taste and care than any other garment about them.

The Navajos, a branch of the Apaches, was a formidable, warlike, and treacherous tribe, which descended from their strongholds in the cañons west of Santa Fe, and robbed the inhabitants of New Mexico of their cattle and sheep. With the exception of a different style in their boots, and in the manner of arranging their hair, their dress was the same. Their bows, arrows and lances were the same, and the helmet-shaped head-dress did not materially differ. The Navajos had a very fine description of woolen blanket of their own manufacture, which they used to cover their bodies when it was cold, as well as for saddle cloths. These blankets were very superior; in fact, they were quite equal to the best English blankets, except that they were without any nap. They spun and dyed the wool, which they raised themselves; though others asserted that the richer colors were obtained by unraveling fine scarlet blankets of English manufacture, the threads of which were then used in the weaving of their own.

The following account of a captive girl is taken from the reports of 1851 of the boundary commissioner, John R. Bartlett. It is only one of scores of similar stories which might be told:

"On the evening of the 27th of June a party of New Mexicans came in for the purpose of procuring provisions, etc., having with them a young female and a number of horses and mules. By what dropped from them in the course of conversation, it was ascertained that the female and animals had been obtained from the Indians; and that they were taking the girl to some part of New Mexico, to sell or make such disposition of her as would realize the most money. As all traffic of this kind, whether in mules or captives, was strictly prohibited by the treaty with Mexico, I deemed it my duty, as the nearest and highest representative of the government of the United States in this region, to interfere in the matter. My authority for so doing is contained in the second and third sections of the eleventh article of the treaty of Guadalupe Hidalgo, where it is declared that—

"It shall not be lawful, under any pretext whatever, for any inhabitant of the United States to purchase or acquire any Mexican, or any foreigner residing in Mexico, who may have been captured by Indians inhabiting the territory of either of the two Republics, nor to purchase or acquire horses, mules, cattle, or property of any kind, stolen within Mexican territory by such Indians.

"And in the event of any person or persons, captured within Mexican territory by Indians, being carried into the territory of the United States, the government of the latter engages and binds itself, in the most solemn manner, so soon as it shall know of such captives being within its territory, and shall be able to do so, through the faithful exercise of its influence and power, to rescue them and return them to their country, or deliver them to the agent or representative of the Mexican government. The Mexican authorities will, as far as practicable, give to the government of the United States notice of such captures; and its agent shall pay the expenses incurred in the maintenance and transmission of the rescued captives, who, in the meantime, shall be treated with the utmost hospitality by the American authorities at the place where they may be. But if the government of the United States, before receiving such notice from Mexico, should obtain intelligence through any other channel of the existence of Mexican captives within its territory, it will proceed forthwith to

effect their release and delivery to the Mexican agents, as above stipulated.'

"With this authority before me I addressed a note to Lieut.-Col. Craig, commander of the escort, requesting him to demand the surrender of the female, and to prohibit the men, who intended departing at early dawn, from leaving their encampment until further orders. This request, which was made late in the evening, was promptly complied with under the immediate directions of Lieut. D. C. Green.

"The ensuing day the three principal traders of the party were brought up to the fort, and separately examined, in reference to the manner in which they had obtained, and the right they had to the possession of, the captive girl and the animals. These three persons were Peter Blacklaws, a trader in Santa Fe, Pedro Archeveque, a laborer of Algodones, and José Faustin Valdez, a laborer of Santa Fe.

"Their evidence was somewhat conflicting—more particularly with respect to the female. It appeared there was a party of about fifty men who had been trading with the Indians north of the Gila; a portion of them still remained there, while another portion (about twenty) were here, on their way back to Santa Fe. The whole had been trading under one and the same license, although it was acknowledged that the name of none of them, save Peter Blacklaws, was inserted in it; he, however, declared that he was authorized—which is hardly probable—to add to his party as many as he chose. This license was called for, but not produced, it being, as was stated, in the possession of the other portion of the party. They seemed to consider themselves fully authorized, by virtue of the license, to purchase any species of property held by the Indians, and this without any regard to the manner in which the latter obtained it. They seemed surprised that I should question their rights on the strength of a treaty, the stipulations of which they knew nothing about.

"As respects the captive girl, who, it was acknowledged, was bought of the Piñol Indians, even placing their conduct in the most favorable light, it is quite apparent that she was purchased, like any other article of merchandise, as a matter of speculation. According to part of the testimony, the expedition was fitted out for the express purpose of buying her; while others de-

clared that the purchase was an incidental matter. It appeared that her apprehensions at being taken by these men still further from her home, instead of being restored to her natural protectors, had been quieted by assurances that her purchaser was acquainted with relatives of hers in Santa Fe; although his testimony showed, as might have been anticipated, that he had no such acquaintances at all.

"The girl herself was quite young, artless and interesting in appearance, prepossessing in manners, and by her deportment gave evidence that she had been carefully brought up. The purchaser belonged to a people with whom the system of peonage prevails, and among whom, as a general thing, females are not estimated as with us, especially in a moral point of view. The fate that threatened her under these circumstances being too apparent, I felt under no necessity of regarding the protestations of Blacklaws, as to the honesty of his intentions, inasmuch as the treaty prohibits purchases of this kind "under any pretext whatever." I therefore deemed it to be my duty—and a pleasant one it certainly was—to extend over her the protection of the laws of the United States, and to see that, until delivered in safety to her parents, she should be 'treated with the utmost hospitality' that our position would allow. The substance of the following brief statement was furnished by this young captive:

"Her name was Inez Gonzales, daughter of Jesus Gonzales, of Santa Cruz, a small frontier town, near the River San Pedro, in the State of Sonora. She was then in the fifteenth year of her age. In the September preceding she had left her home, in company with her uncle, her aunt, another female, and a boy, on a visit to the fair of San Francisco, in the town of Madelena, about 75 miles distant. They were escorted by a guard of ten soldiers, under the command of an ensign named Limon. When one day's journey out, viz., on the 30th of September, 1850, they were attacked by a band of Piñol Indians, who lay in ambush in a narrow wooded cañon or pass. Her uncle was killed, and all the guard, save three persons, who made their escape. She, with her two female companions, and the boy, Francisco Pascheco, were carried away into captivity. She has been with the Indians ever since. The other captives, she understands,

were purchased and taken to the north by a party of New Mexicans who made the Indians a visit last winter. No improper freedom was taken with her person; but she was robbed of her clothing, save a skirt and under linen, and was made to work very hard. She spent the whole period of her captivity at two of the regular rallying spots or planting grounds of the Piñols.

"This tribe is also known as the Piñol, or Pinañols, embraces about five hundred souls, and ranges over an extensive circuit between the Sierra Piñal and the Sierra Blanca, both of which mountains are near the Upper San Francisco River, about five days' journey north of the Gila.* Within this space the young girl knew of at least twelve female captives, besides numerous males.† Generally, the Indians are very willing to sell, that being their object in making the captures. The men spend their time in hunting and depre-dating; and the women are required to do all the work in their wigwams and generally in the field; all females in this respect being treated alike, their own faring no better than captives. Their food consists almost exclusively of the root of the maguay, baked.

"The fair captive was of course taken care of by the Commission. She was well clad with such materials as the sutler of the escort and the commissary of the Commission could furnish; and, besides the more substantial articles of clothing provided for her, she received many presents from the gentlemen of the Commission, all of whom manifested a deep interest in her welfare, and seemed desirous to make her comfortable and happy. But with all the attentions extended to her, her situation was far from enviable in a camp of over a hundred men, without a single female with whom she could hold any intercourse. She found employment enough in making her own garments, being quite expert at her needle, and occasionally spent an hour in reading the few Spanish books in our possession.

"Later, when we had arrived near Santa Cruz, it became known that we had with us a captive

*There are two streams by this name on Emory's map, which empty into the Gila; I refer to the eastern one. The western one is known on the Spanish maps as the Rio Verde, or Ascencion.

†If, within her limited sphere of observation, she knew of twelve female captives, there is no doubt that there must have been hundreds of such captives among the Apaches. Could all of this be known what a volume of fearful, but interesting reading it would make.

girl named Inez Gonzales, whom we were about restoring to her family. The Mexican party were all from Santa Cruz; and, singularly enough, the father, uncle, and many of the friends of Inez were among them; in fact, there was scarcely one of the number to whom she was not known. This was the first intimation that they had received that the poor girl was living, and had been rescued from her savage captors. They required no urging, but to a man left their hunting ground, and accompanied Carroll to our camp.

"The joy of the father and friends in again beholding the face of her whom they supposed was forever lost from them was unbounded. Each in turn (rough and half naked as many of them were) embraced her after the Spanish custom; and it was long ere one could utter a word. Tears of joy burst from all; and the sunburnt and brawny men, in whom the finer feelings of our nature are wrongly supposed not to exist, wept like children, as they looked with astonishment on the rescued girl. She was not less overcome than they; and it was long before she could utter the name of her mother, and ask if she and her little brothers yet lived. The members of the Commission who witnessed this joyful and affectionate scene could not but participate in the feelings of the poor child and her friends; and the big tears, as they rolled down their weather-beaten and bearded faces, showed how fully they sympathized with the feelings of our Mexican friends.

"Boys occasionally escape from their captors, and find their way again to their homes; but young women are generally forced to marry, and when they become mothers they have no desire to return. It was gratifying to the fair captive to learn that her mother, brothers and sisters were well; though her mother still pined for the loss of her daughter, under such painful circumstances.

"Two of the party dined with me on the scanty fare I could offer them; after which they all returned to their camp, except the father and uncle of Inez, who remained to accompany us to Santa Cruz. Finding that we were short of provisions, they sent us a fine quarter of beef.

"A little later, two men started in advance to advise the mother of Inez of our approach, and when within two miles of the town we saw a small party approaching, partly on mules and

partly on foot, among whom were the fair captive's mother, brothers and uncle. As we drew nearer, Mr. Cremony helped Inez from the saddle, when in perfect ecstasy she rushed to her mother's arms. Words cannot express the joy manifested on this happy occasion. Their screams were painful to hear. The mother could scarcely believe what she saw; and after every embrace and gush of tears she withdrew her arms to gaze on the face of her child. I have witnessed many scenes on the stage, of the meeting of friends after a long separation, and have read highly-wrought narratives of similar interviews, but none of them approached in pathos the spontaneous burst of feeling exhibited by the mother and daughter on this occasion. Thanks to the Almighty rose above all other sounds, while they remained clasped in each other's arms, for the deliverance from captivity and the restoration of the beloved daughter to her home and friends. Although a joyful scene, it was a painfully affecting one to the spectators, not one of whom could restrain his tears. After several minutes of silence, the fond parent embraced me, and the other gentlemen of the party, in succession, as we were pointed out by her daughter; a ceremony which was followed by her uncle, and the others, who had by this time joined us. We then remounted our animals and proceeded toward the town in silence; and it was long before either party could compose themselves sufficiently to speak.

"As we journeyed on, we met other villagers coming out to meet us, and among them two little boys from eight to twelve years of age. They were the brothers of Inez; and when they saw their sister, they sprung upon the saddle with her, clasping their little arms around her, and like their mother bursting into tears. Releasing their embrace, Inez pointed to us, when the little fellows ran up to our horses and eagerly grasped our hands, trotting along by our sides, while the tears rolled down their cheeks. A little further, we were met by another lad about twelve years of age. He, too, embraced the returning captive, and, like the others, burst into tears. But those tears were excited by feelings very different from those awakened in the other boys, the brothers of Inez. They were tears of despair—of long cherished hope checked in the bud—of disappointment—of pain—of misery! This

poor boy was the child of the woman who was made a captive by the Apaches at the same time with Inez. She and Inez had left their homes together, one year ago this very day, for the fair of Madelena, where their party was when attacked by the Apaches, and all but three killed or taken prisoners. Of the three who were made captives, no news had ever been heard; and the poor girl now returning, was the first intelligence that either was in existence. The little orphan wrung his hands with despair as he raised his eyes first to the companion of his mother, and then to us, thinking perhaps that we might have regained his parent, as well as her. I was much affected when Inez told me who this lad was, and resolved that I would make an effort for her restoration, too, as soon as I could communicate the particulars to the government, as she is the person who was bought by the New Mexican traders, and taken to Santa Fe, a short time before the purchase of Inez.

"As we drew near the town, numbers of the inhabitants came out to meet us and welcome back the restored captive. When about half a mile distant, Inez wished to dismount and walk thence to the church, that she might first offer up her prayers for her deliverance from captivity, before going to her home. Accordingly we all dismounted and accompanied her to the door of the church; and there she was met by many more of her friends, when they all passed forward and knelt down before the altar. We left them engaged in prayer, and waited outside the church until their devotions were concluded. They then passed out, and escorted Inez, her parents, brothers and sister, to their home."*

In the middle of January, 1851, the Indians assaulted the Presidio of Tucson, and were repelled with considerable difficulty. After the fight they seemed desirous of making a truce with the garrison, and to this end sent a message by one Jose Antonio Acuña, a captain. A sort of peace was made between the Mexicans and the Indians, and in view of a movement of Papagos the Indians marched off to the west, leaving the Captain with his countrymen.

From an old official in the office of the Treas-

*I have spoken of the father of Inez Gonzales. He was in fact, her step-father, and named Jesus Ortis. He seemed ardently attached to her, and told me he loved her as his own.

urer-General is obtained the following particulars: In 1851 this Acuña, who had lived among the Apaches for many years, returned to Sonora and stated that somewhere between the Rios Salado and Puerco there was a large deposit of almost pure silver. The Indians took this for lead and were in the habit of extracting and using it in the manufacture of bullets. He offered to lead a company of his countrymen to the spot. One Carrasco (probably the general in command of the Military Colonies) organized an expedition consisting of 500 men, but died before a movement could be made. His place was taken by one Tapio. The expedition passed beyond the Gila River, and was there scared off by a band of Apaches. This Acuña, a few years afterward, maintained that all that he had said was true, and that at the time the expedition was attacked by the Apaches it was in the vicinity of the deposit of silver of which he had spoken.

*In 1863, when the first white settlements were made in Arizona, outside of Tucson, Tubac and one or two other places, Indians occupied every other portion of the Territory. The Pimas, Yumas, Papagos and Maricopas were disposed to be friendly. The Apaches, Navajos, Hualapais, Crevents, Pah-Utes and all other groups of Indians were hostile to the whites. The late Pauline Weaver and some other trappers managed to live in the country. "Uncle" Joe Walker came here at a very early date, returned to the States, and in 1863 led a party of white men from Colorado to this part of Arizona, where gold was found and settlements made. Emigrants from California crossed through Northern Arizona in 1858. They had to fight their way and often were annihilated. Along the southern or overland route, hostile Indians were almost every day seen by passengers and others. The Walker party for awhile got along pretty well with the savages, who, at last, commenced stealing and killing. Their first overt act was, if we remember correctly, commenced at Weaver in 1863. In March, 1864, they killed Cosgrove, near Prescott. In June of that year, the late Col. S. K. Woolsey, at the head of a large party, penetrated the Verde region, Tonto Basin, and the White mountains, and chastised the savages. In Tonto Basin his party was surrounded by a great many

*By S. H. Drachman.



J. H. Doalittle,

Indians, who sought to surprise and kill them all. A big chief of the Tontos, backed by many braves, entered Woolsey's camp and asked for the chief. Woolsey was pointed out to him and was immediately ordered by the satrap to spread blankets for himself and braves to sit upon. The order was promptly obeyed. Soon a signal smoke was seen to go up and the whites knew that it was time for them to act. Woolsey gave the signal and immediately guns were fired with good effect. Several Indians were killed. Hundreds more appeared, but the band of whites fought their way out of the place in which the Indians expected to have murdered them.

"Robberies and murders by Indians were kept up until the year 1873, when the savages, after years of warfare, surrendered to Gen. Crook, and were placed upon reservations by the Indian Bureau.

"During all this time war parties of savages of from fifty to two hundred roamed the country and it is a wonder that they did not kill off all the whites. Prospectors, miners, farmers, freighters and others never felt safe.

"All went armed, ready at a moment's warning to fight for their lives. It was an impossibility to keep a domestic animal, either in town or country. Crook conquered about 5,000 of them, all in fact, save the Chiricahuas, the last of whom were conquered by Gen. Miles."

When the whites first began to settle permanently in the Territory the Indian problem far outclassed any other in importance. The tribes were scattered and no control could be exercised over them. The result was that neither life nor property was safe from their depredations. A volume could be written on their atrocities since 1850. In fact, no settlement could be made until it was accomplished under the guns of United States troops or the fury of the pioneers. Every method was tried to control the savages and effect the safe and peaceful settlement of the Territory.

One of the first steps was to gather together the members of a tribe and place them on a reservation, where they could be watched and to some extent governed, but the restraint was galling and was often broken through, and is to this day. The Pimas, Maricopas and Papagos are now located on four reservations—the San Xavier, in Pima County, nine miles south of Tucson,

in which are gathered the Papagos; the Sacaton in Pinal County, the Gila Bend on the Gila and the Salt River on that stream, the latter three being occupied by the Pimas and Maricopas. These three tribes number about 7,500 persons and are under the supervision of the Sacaton Agency. These tribes were first provided for on February 29, 1859, since which date numerous changes have been made both in boundary and extent.

In the western part of the Territory, on the Colorado River, is the Mohave Reservation, or as it is popularly called, the "Colorado River Reservation." It was first set apart March 3, 1866, and has likewise been changed somewhat since. The Mohaves number about 700.

In the northeastern part of the Territory is the Navajo Reservation, where are congregated about 20,000 members of that tribe. Lands there were first set apart June 1, 1868, and important additions were afterward made thereto.

The Navajos have for years been creating much friction with the stockmen of Apache County, and some of the farmers of Coconino County, in the vicinity of Tuba City. It is estimated that there are from 5,000 to 7,000 Navajos off the reservation, also much of their stock, which interferes with the rights of Arizona stockmen and farmers. More than once serious results were feared.

It appears that in the vicinity of Tuba City very unsatisfactory conditions exist. The farmers have reclaimed lands to agriculture, some of which is claimed by the Indians, who frequently destroy irrigating canals and drive their stock into the fields of the ranchers.

Several years ago the district court of Coconino County issued an injunction restraining these Indians from interfering with or molesting these ranches, but the attempt to enforce the order has been met by armed resistance from the Indians, and to avert bloodshed and most probably a bloody war the officers of the law desisted from enforcing the mandates of the court.

On December 16, 1882, a reservation for the Moqui Indians was established west of the Navajo Reservation in the northeastern part of the Territory. They number about 2,100. Important changes of boundary have been made in their reservation.

In the White mountains is the San Carlos Reservation, established for the Apache Indians November 9, 1871, with many important changes made afterward. Valuable coal fields and 50,000 acres of arable land lie in this reservation.

Among the Apaches are the sub-tribes of Coyoteros, Piñals, Aravaipas, Tontos, Apache-Mohaves, Apache-Yumas and Chiricahuans, including the Cochise tribe. All told they number about 4,600. This is called the "San Carlos Reservation."

The Hualapai Reservation, adjoining the Grand Cañon of the Colorado, was established January 4, 1883. The Yuma Reservation, on the Colorado, near its junction with the Gila, was established in 1883, and one on Cataract Creek for the Yavapai Indians in 1880.

The history of the Apaches is known for upward of three hundred years, since Father Kino first explored the valleys of the Salt and Gila rivers, in search of the "Seven Cities of Cibola."

For a long time they were lost sight of, until the immigration of gold-hunters into California took place. Then they were brought prominently before the Americans. Since then they have become well-known, eclipsing the Siouxs and the Comanches in the cruelty of their warfare. Among them, at times, have arisen chiefs of extraordinary ability, such as Magnus Colorado, Cochise, and others.

As far as intellectual ability they equal any savage race of men on earth. Of course their mental powers have not been educated or called forth as far as books are concerned or the experience of other nations or individuals than themselves. But as far as mountain, plain, desert, oasis, rivers, lakes, trees, plants, and animals of their own country, they are unexcelled. Their origin is in common with other Indian tribes. Their geographical position undoubtedly has something to do with their character. The Indians of the plains and Gila and Colorado rivers have large, wide-spreading feet. Those of the mountains have small feet. Those of the plains are tame and have ever been at peace with the white man, as the Papago, Pima and Yuma. Those on the mountains have ever been wild and untamable.

There are about six hundred aboriginal words in the regular Apache language. These are of the simplest character, and taken wholly from

the things of nature surrounding them, or from some habits or description of the thing. Since the advent of the white man, they have added a great many words to their stock by compounding. For example, trail is it-tin, and iron or metal is pesh. Railroad is pesh-it-tin. A wagon, running on the ground, is it-zay-knock-eye. Fire is koong. A locomotive is koong-knock-eye, or, literally, fire wagon, etc. None of the Pacific Coast Indians can count much beyond ten, but the Apaches can count to 10,000 as easily as we do.

As the women are deemed altogether inferior, they are spoken of simply as ish tia nay, or woman. Few Apache women are honored with names; but when used they are quite poetical, as *Sous-ce-ah-say*, "Morning Star." *Ish-kay-nay*, "Tom-boy." The warriors take their names from some marked trait of character or act. There was, for instance, *Gian-nah-tah* which means, "Always Ready," and was admirably descriptive of the man's character. Then came *Nah-tanh*, or the Corn Flower," so called from having, on one occasion, while on a raid in Sonora, completely hidden himself and party in a field of corn near the large town of Ures, and succeeded in running off 200 or 300 head of horses. A tall, stately fellow, rejoiced in the name of *Natch-in-ilk-kism*, or the "Colored Beads," of which he always wore a thickly-worked and stiff collar around his throat, and bracelets on his wrist. *Nah-kah-yen* means the "Keen-Sighted," and was so baptized because, of his wonderful powers of vision. *Too-ah-yay-say*, the "Strong Swimmer," got his title from a narrow escape from drowning in the Rio Grande, while endeavoring to cross it with a band of stolen horses. After a desperate struggle, in which several of the animals were lost, he succeeded in reaching the shore and effecting his escape with the rest, from a large pursuing party of Mexicans, who did not dare venture into the swollen and turbid flood. A quiet, easy-tempered and good-natured fellow was known as *Para-ah-dee-ah-tran*, meaning the "Contented." One old chief received the sobriquet of *Klo-sen*, or the "Hair Rope," for having lassoed and killed a Comanche during a fight between the tribes with one of those *cabestros*. His arrows had been expended, and, possessing himself of the arms of his slain enemy, *Klo-sen* contributed

greatly toward winning the fight. *Pindah-lick-ye*, or "White Eye," was so named from an unusual amount of white about the eye. The above regarding Apache names and character is taken from "Life Among the Apaches," written by J. C. Cremony, to which the reader is referred for the true inwardness of the Arizona Indians.

"It is an absolute fact," says Maj. B. Truman, "no more cowardly, no more cruel an Indian ever lived than the Apache. Five hundred odd rude graves of pioneers and soldiers mark with dreadful precision the evidences of the deadly work of the treacherous Apache. Hundreds of innocent men, women and children have been murdered; stages attacked and passengers burned at the stake; gallant army officers have been killed." Maj. Truman gives an account of one of the characteristic attacks of the Apaches on a stageload of passengers, near Wickenburg, on November 4, 1871, during which Fred Losing, a noted writer, and five others were killed; one man and one woman escaped.

"The people occupying the stage at the time of its leaving Wickenburg, were in high spirits, and anticipated no danger of an attack. Their arms had been stored beneath the cushions of the seats for convenience and safety; and wit, wine and humor flowed freely, everything going on as 'merry as a marriage bell,' until the moment of attack. Miss Sheppard and Mr. Kruger and three others sat on the side. Young Loring rode on the outside, in company with the driver. The first notification the inside passengers had of the presence of danger was at a point about nine miles from Wickenburg, when they were startled by the voice of the driver, calling out: 'Apaches! Apaches! Apaches!'

"Scarcely was the alarm thus given, than a volley was discharged from the rifles of the savages into the stagecoach, succeeded, almost instantly, by a second one. The driver, Loring, Shoholm and Hamel were killed instantly, Loring groaning slightly for a few moments, Hamel and Shoholm remaining upright in their seats. Mr. Salmon received a shot in the abdomen, and, seemingly in his agony, sprang out of the stage. Mr. Kruger received a ball in his right shoulder, and two shots in the back. Upon the firing of the first volley, he grasped Miss Sheppard and forced her under the seat, lying down on the floor of the coach himself, having previously dis-

charged the contents of his pistol into the midst of the savages. Miss Sheppard had been wounded, in the right arm above the elbow, and two shots had plowed through the flesh of her shoulder. After the discharge of the second volley everything remained quiet for a few moments, so still that the dropping of a pin might have been distinctly heard. There being no signs of life in the coach, the savages presumed that they had succeeded in killing all, and with one accord sprang, cat-like, from their ambush upon the coach. When within almost an arm's length of it, Mr. Kruger and Miss Sheppard sprang to their feet and yelled with all their might, the former holding his revolver in their faces. This was too much for the cowardly redskins, and they at once retreated pell-mell to cover. The two then sprang from the stage and called out for all those still alive to follow them. The only response was from Mr. Adams, who was lying on the bottom of the coach. Adams seems to have been paralyzed by the shot he had received, being unable to move anything except his head, which he raised, saying: 'O God! can't you save me?'

"When asked if he could move, he answered in the negative; Kruger then told him that they would be compelled to leave him to his fate. He was then lying face downward. When subsequently found, he had been turned over and shot through the head.

"Kruger and Miss Sheppard then left the stage, and struck through the brush, closely followed by the Indians. The Apaches had apparently expended their rifle ammunition at the first attack, as they had pistols only when following the fugitives. These they discharged at them frequently, keeping, however, at a respectful distance, dreading the revolver in the hand of Kruger, which was leveled at them whenever they attempted to close upon them. Miss Sheppard had also armed herself with an empty wine-bottle, furnished to her by Kruger, which also had considerable effect in intimidating them when they approached, mistaking it for a weapon.

"Shortly afterward, they regained the road, and plodded on in the direction of Ehrenberg, dogged by four Apaches on the right, and five on the left, Kruger all the while supporting his companion with one hand and intimidating their pursuers with the revolver in the other. Their wounds were bleeding freely the whole time, and

when completely exhausted, having traveled through loose sand for a distance of at least five miles, they were greeted by the welcome sight of a cloud of dust, arising from the buckboard conveying mails to Wickenburg. The Apaches were not any slower than themselves in discovering it, and almost immediately vanished. The driver of the buckboard was so frightened when he saw the fugitives that it was with some difficulty that he was induced to take them on board, and even then not until Kruger threatened to shoot him.

"They were then conveyed a few miles in the direction of Ehrenberg, to the confines of a barren desert, some thirty or forty miles broad, on the other side of which that city lay. Here the driver concluded to leave them, while he rode across the country for assistance, promising to return by 7 o'clock in the evening. An improvised barricade was formed of the mail bags and a trunk, behind which they remained, fearing momentarily another attack from the Apaches. It was not until past midnight that relief came. In the interim, they had suffered fearfully from thirst and cold. At 11 o'clock they saw, in the form of fires, signs on the hills which satisfied them that there was succor coming. A body of about twenty armed men, with an ambulance to convey the dead, had been brought from Wickenburg, and they, with five of the six that had been murdered, were at once taken back to that place. The sixth body—that of Mr. Salmon—was not found until the following morning, as he had crawled some distance away from the stage, where he had fallen into the hands of the savages and had been scalped, the skin being torn off from the chin to the back of the head.

"Loring, Lance, Shoholm, Hamel and Adams, were all decently buried at Wickenburg, but Salmon was interred in the middle of the road near where the attack had been made.

"The Indians had rifled all the baggage within the stage, taking therefrom all the valuables they contained in the way of money and jewelry. Kruger's loss was within a trifle of \$8,000, and Miss Sheppard's a similar amount. The other passengers also had large sums of money, all of which the savages carried away.

"The mail bags were packed in the boot of the stage. A demijohn, containing about a gallon of whisky, six bottles of Jamaica rum, and sev-

eral bottles of porter, were stowed there also. After ransacking one or two of the bags, it is presumed the Apaches discovered the liquor, and abandoned everything for it, leaving the balance of the mail untouched in the forgetfulness of intoxication.

"The wounded man and woman were taken to Camp Date Creek, to receive medical treatment, Dr. Evans being the only physician nearer than Ehrenberg. The lady carried with her for a long time a relic of the tragedy in the form of a fur cape, which contained seven bullet holes. The old hat worn by Loring at the time of his untimely death was forwarded to his father, that being all that was left of his effects unrobbed or unburied."

It has been more than three hundred years since the Pimas and other Arizona Indians were first offered the benefits of Christian civilization by the Jesuit fathers from Spain, yet the progress made is scarcely perceptible. The Navajos, it is true, although having been warlike and troublesome for many years, are now peaceful and occupied in pastoral pursuits. And they are likely to continue so on account of community and property interests, as they own large herds of horses, cattle and sheep, and they realize that a war would affect them disastrously. Aside from their peacefulness they show few signs of civilization. They retain their barbarous customs and indifference to Christianizing influences, and it is believed that were it not for their property interests but very slight provocation would induce them to wage savage and cruel warfare. They are an expense and a burden to the General Government. Their herds roam over the public domain untaxed, and they contribute nothing to the general good of the country. The Pimas and Maricopas are peaceful and industrious, engaged in agricultural pursuits and self-sustaining, but so far as their civilization is concerned there is nothing in it. They follow the same primitive ways of three hundred years ago. There is no perceptible progress to their enlightenment. In fact, in some respects, they have evidently retrograded since the establishment of the Spanish missions. It is probable, however, that no serious trouble will be occasioned by the Navajos, at least for many years, when the restraints of advancing civilization may excite their resistance, in which case their fate can only be gradual

extermination by the inevitable "survival of the fittest." So far as the Pimas, Papagos and Maricopas are concerned they are powerless to affect the material progress of the Territory except in their occupancy of lands which might far better be occupied by energetic, intelligent white settlers. The Yumas, Mohaves, Hualapais, and Supais are also a harmless set of vagabonds.

The Indians of Arizona from whom the people desired relief were the most untamable and cruel savages known to American history—the implacable Apaches; and to the question of their proper disposition the attention and action of the War Department and of Congress was most earnestly urged. They fought step by step the advance of civilization, and waged relentless war upon all propositions of enlightenment. They were brave, treacherous and vindictive. Their instincts were to kill, and their profession was robbery and murder. They were never peaceful for any protracted period. Their career of bloodshed long antedates this country's settlement by white men, and has been continuous since any record has existed until recently. They were quiet at times, that their blows might be the more unexpected and sure. All efforts to effect their permanent reformation have failed.

The humane policy of the Government in giving them a reservation of some of the best lands of the Territory, and amply providing for their necessities, together with efforts to educate and otherwise improve them, was met with treachery and bloodshed.

A strong military force, composed of the most experienced Indian fighters the country could produce, and officered by the most capable commanders, familiar with the country and habits of these Indians, was unable to prevent periodical raids for murder and rapine.

To enumerate the many atrocities they committed since the settlement of this Territory by Americans would fill a volume. Up to the year 1874 they terrorized the entire Territory, kept out immigration and capital, and had life and property virtually at their mercy. In that year they were placed on a reservation, and the people of Arizona congratulated themselves upon the end of the Indian difficulties. But the raids early in the '80's rudely awakened them from their dream of security. It is true that these

disturbances were confined to a small band of the Apache tribe, and the region through which they raided is but a small fraction of Arizona, yet the damage to every material interest of the Territory was incalculable. Immigration was deterred from coming to a country reported to be overrun with hostile Indians, and capitalists hesitated to invest where life and property were said to be so insecure. In May, 1885, a small band of Chiricahua Apaches, numbering, as stated by the military authorities, about fifty fighting men, left the reservation, and for months raided through Southeastern Arizona and Southwestern New Mexico until driven by the United States troops into Mexico. They killed many people and destroyed much property. They went back and forth from Mexico, and the entire force of General Crook was unable to overtake and destroy them. They divided into small bands, secreting themselves in almost inaccessible mountain fastnesses, swooping down upon unprotected and isolated localities, killing ranchmen and prospectors, and escaping unpunished.

*"In the year 1870, in accordance with the peace policy which had been decided upon by the United States Government, the Piñal and Aravaipa bands of Apache Indians were collected together and placed upon a reservation around Old Camp Grant, at the junction of the San Pedro and Aravaipa creeks, about 55 miles from Tucson, under the supervision of the military stationed at that post. One or two agents for them had been taken from civil life, but, in a short time, their management proving unsatisfactory, one Royal E. Whitman, a lieutenant of the Third Cavalry, United States Army, was assigned to duty as their agent; being what is termed a sharp man and of a thrifty turn, he soon saw that there was money in the Apache, and lost no time in the practical application of that knowledge, to work which successfully required outside partners, who were soon found in Tucson; a sutler's store was first started, followed by a blacksmith and butcher shop; and a number of strikers, chosen in various capacities, ostensibly for the benefit of poor Lo, really affidavit and easy conscience witness men for the boss; and, as a trite saying goes, 'Hell was fully inaugurated.'

"The Indians soon commenced plundering

* By W. S. Oury.

and murdering the citizens of Tucson, San Xavier, Tubac, Sonoita, San Pedro, and every other settlement that was within a radius of 100 miles of Camp Grant, in the confidence that if they escaped to their reservation they reached a secure haven. During the winter of 1870-71 their murders and depredations were so numerous as to threaten the abandonment of nearly all settlements outside of Tucson, especially that of San Pedro, the most numerous and important of all. In the meantime the citizens of Tucson were aroused, meetings were held upon the occurrence of each new murder and outrage, representations were made to the Right Royal Whiteman that his Indians were plundering and murdering the people, which he denied, and stood ready to prove by every striker on the reservation that his Indians never left the place. Meanwhile the work of destruction was kept up, with ever-increasing force, until the slaughter of Wooster and wife on the Santa Cruz above Tubac so infuriated the people that an indignation meeting was held at Tucson. A great amount of 'resoluting' and 'speechifying' was indulged in, and it was determined that a military company should be raised at once, for which a paper was drawn up and signers called for, to which eighty-two Americans signed their names. I was elected captain, and all hands pledged to eat up blood-raw every Apache in the land immediately upon the recurrence of new outrage; a committee was appointed to visit the department commander, Gen. Stoneman, at that time on the Gila near Florence, consisting of S. R. De Long, J. W. Hopkins and myself, the remaining names not now remembered, which committee started at once for its destination.

"The result of the conference with that august personage, Gen. Stoneman, was that he had but few troops and could give us no aid, that Tucson had the largest population in the Territory and gave us to understand that we must protect ourselves. With this cold comfort, after a trip of 150 miles, and the loss of a valuable mule, we returned to our constituents, and, although no public demonstration was made, at a quiet assemblage of some of our oldest and most substantial citizens, it was resolved that the recommendation of Gen. Stoneman should be adopted, and that to the best of our ability we would endeavor to protect ourselves. A few days after-

ward, in the beginning of April, 1871, the arrival of a courier from San Xavier brought the sad intelligence that the Indians had just made a descent upon that place, and had driven off a large number of cattle and horses. The alarm drum (the usual way of collecting our people) was beat, a flaming cartoon carried by a man who accompanied the drummer, was displayed, with the following inscription thereon: 'Injuns! Injuns! Injuns! Big meeting at the court house! Come everybody! Time for action has arrived!'

"This device had been so frequently resorted to, and the result obtained so unsatisfactory, that it failed to draw. Meanwhile a party of citizens had saddled their horses, and, learning from the San Xavier courier the direction taken by the marauding Indians, rode off hoping to intercept them before they reached the 'Cebadilla' pass. In this they were disappointed, for the Indians had gone into the pass before they arrived, but they met the pursuing party from San Xavier and the whole party followed the trail through the pass and overtook the rear Indian driving the stock on a tired horse, and killed him and recovered some of the cattle, the other Indians escaping with the horses and the freshest cattle. Upon return of the party to Tucson, I hunted up one of them, Jesus M. Elias, and had a long conference with him, in which he said to me, 'Don Guillermo, I have always been satisfied and have repeatedly told you that the Camp Grant Indians were the ones that were destroying us. I now have proof positive. The Indian we have just killed, I will swear, and others will also swear, is a Camp Grant Indian. I have frequently seen him there and know him well by his having a front tooth out, and a further proof, when we overtook the Indians they were making a direct course for Camp Grant. Now, it devolves upon you as one of the oldest American residents of the country to devise some means of saving us from the total ruin which the present state of affairs must inevitably lead to if not remedied. See your countrymen, they are the only ones who have means to furnish the necessary supplies to make a formal campaign against our implacable enemies; I know my countrymen and will vouch that if arms, ammunition and provisions, however scant, are furnished, then they will be ready at the first call.

"I replied, 'Don Jesus, for myself I will answer that I will at all times be ready to do my part, and will at once issue a call for the assemblage of my people at the court house, where you can publicly state what you have just told me, and some concerted plan can be adopted which may give the desired relief.' With a sad shake of the head he answered, 'No, Don Guillermo, for months we have repeatedly held public meetings, at which many patriotic speeches were made and many glowing resolutions passed; meanwhile our means of subsistence have been rapidly diminishing, and nothing accomplished. We cannot resolute the remorseless Apache out of existence. If that could have been done every one of them would have been done long since; besides giving publicity to the course we might determine to pursue, would surely defeat any plan that we might adopt. You are well aware that there are wealthy men in this community whose interest it is to have the Indians at Camp Grant left undisturbed, and who would, at the first intimation of an intent to inquire seriously into their operations, appeal to the military (whose ear they have) and frustrate all our plans and hopes.'

"I saw at once the truth and force of his argument, and replied, 'Lay out the plan of action, and I will aid with all the zeal and energy I possess.'

"He then developed the following plan: 'You and I will go first to San Xavier, see Francisco, the head of the Papagos there, have him send rumors to the various Papago villages notifying them that on the 28th day of April we want them to be at San Xavier early in the morning, with all the force they can muster for a campaign against our common enemy, the Apache, Francisco to be prepared to give them a good breakfast on their arrival and send a messenger to me at once; this matter being satisfactorily arranged we return to Tucson. I will see all the Mexicans who may desire to participate in the campaign and have them all ready to move on the day fixed, April 28, news of the arrival of the Papagos at San Xavier having first been received. All who are to be active participants in the campaign shall leave town quietly and singly to avoid giving alarm; and rendezvous on the Riito opposite San Xavier, where the Papagos will be advised to meet us, and where, as per

arrangement, the arms, ammunition and provisions will be delivered and distributed. All hands having arrived at the rendezvous the command shall be fully organized by the election of a commander, whom all should be pledged to obey implicitly. When thus organized the command shall march up the Riito until the trail of the Indians who had committed the recent depredation at San Xavier shall be struck, which will be followed wherever it may lead and all Indians found on it killed if possible.

"Here, then, you have the whole plan of the Camp Grant campaign, as proposed by Mr. Elias and concurred in by myself.

"For its successful fulfillment we both went to work with all our hearts—he with his countrymen (the Mexicans), I with mine (the Americans), and both together with our auxiliaries, the Papagos; and early on the morning of April 28, 1871, we received the welcome news of the arrival of the Papagos at San Xavier, and that after a short rest and feed they would march to the general rendezvous on the Riito. Soon after Mr. Elias informed me that the Mexican contingent was quietly and singly leaving town for the same destination, and soon after, having given proper directions to the extremely small contingent of my own countrymen, I silently and alone took up the line of march to the common rendezvous. By 3 p. m. all the command had arrived; also that which was still more essential to the successful issue of the campaign, to-wit: the wagon with the arms, ammunition and rations, thanks to our old companion, the adjutant general of the Territory, whose name it might not be discreet to give in this connection, but is well known to almost every member of the Society of Arizona Pioneers. As soon as I was convinced that no further increase was to be expected, I proceeded to take account of stock, with the following result: Papagos, ninety-two; Mexicans, forty-eight; Americans, six; in all, 146 men, good and true.

"During our stay at the general rendezvous a number of pleasantries were indulged in by different members of the party upon the motley appearance of the troop, and your narrator got a blow squarely in the right eye from an old neighbor, who quietly said to him: 'Don Guillermo, your countrymen are grand on "resoluting" and "speechifying," but when it comes to action

the show-up is exceedingly thin'—which, in face of the fact that so many Americans had so solemnly pledged themselves to be ready at any moment for the campaign, and only six showed up, was, to say the least, rather humiliating. However, everything was taken pleasantly.

"Jesus M. Elias was elected commander of the expedition, and at 4 p. m. the command was in the saddle ready for the march. Just here it appeared to me that we had neglected a very important precautionary measure, and I penciled the following note to H. S. Stevens, Esq., Tucson: 'Send a party to Canada del Oro, on the main road from Tucson to Camp Grant, with orders to stop any and all persons going toward Camp Grant, until 7 o'clock a. m. of April 30, 1871.'

"This note I gave to the teamster, who had not yet left our camp, who delivered it promptly, and it was promptly attended to by Mr. Stevens. But for this caution our campaign would have resulted in complete failure, from the fact that the absence of so many people from so small a population as Tucson then contained, was noted by a person of large influence in the community, and at whose earnest demand the military commander sent an express of two soldiers, with dispatches to Camp Grant, who were quietly detained at Canada del Oro, and did not reach that post until it was too late to harm us. After writing and dispatching the note above referred to, the order 'forward!' was given, and the command moved gaily and confidently on its mission. About 6:30 p. m. the trail was struck which we proposed to follow, and the march continued through the Cebadilla Pass to the point where the San Xavier party had killed the Indian referred to, when the order to camp was given, as it was about midnight, the moon going down and the trail could not well be followed in the dark. Just at daybreak of the morning of the 29th we marched into the San Pedro bottom, where our commander determined to remain until nightfall, lest our command should be discovered by roving Indians and the alarm given at the rancharia. We had followed all this time the trail of the Indians who had raided San Xavier, and every man in the command was now fully satisfied that it would lead us to the reservation, and arrangements made accordingly. Commander Elias gave orders to march as soon

as it was dark, and, believing that we were much nearer the rancharia than we really were, and that we would reach its neighborhood by midnight, detailed three men as scouts, whose duty it was when the command arrived conveniently near the rancharia, to go ahead and ascertain the exact locality and report to him the result of their reconnaissance, in order to have no guesswork about their position, and our attack consequently a haphazard affair. Everything being now ready for the final march, we moved out of the San Pedro bottom just at dark. It soon became evident that our captain and all those who thought they knew the distance had made a miscalculation, and instead of its being about 16 miles, as estimated, it was nearly 30, so that after a continuous march through the whole night it was near daybreak before we reached the Arivaipa Cañon, so that when we did reach it, there was no time left to make the proposed reconnaissance so as to ascertain the exact location of the Indian camp—which involved the necessity of a change in our plan of attack. We knew that the rancharia was in the Aravaipa Cañon, somewhere above the post, but the exact distance nobody knew. We were in a critical condition. We were in sight of the post, day was approaching, and it was plain that in a very short time we would be discovered either by the Indians or the people of the post. In either case our expedition would be an absolute failure; but our gallant captain was equal to the emergency.

"Promptly he gave orders to divide the command in two wings, the one to comprise the Papagos, the other the Mexicans and Americans, and to skirmish up the creek until we struck the rancharia. When the order forward was given, a new difficulty arose, which, if it had not been speedily overcome, would have been fatal. The command was now in plain view of the military post. The Papagos had all the time been afraid of military interference with us. I had assured them that no such thing would occur, and vouched for it. It happened that just as the command was halting I had dropped the canteen from the horn of my saddle, and, dismounting to look for it in the dust and semi-darkness, got behind the troop. The Papagos, not seeing me at the front when the order forward for the skirmish was given, refused to move, inquiring where Don Guillermo was. Word



Alu. Smith

was immediately passed down the line to me, and I galloped to the front, and with a wave of my hand—without a word spoken—the Papagos bounded forward like deer, and the skirmish began—and a better executed one I never witnessed, even from veteran soldiers. There was not a break in either line from beginning to the end of the affair, which covered a distance of four miles before the Indians were struck. They were completely surprised, and sleeping in absolute security in their wickiups, with only a buck and squaw as lookouts on the bluff above the rancheria, who were playing cards by a small fire and were both clubbed to death before they could give the alarm. The Papagos attacked them in their wickiups with clubs and guns, and all who escaped then took to the bluffs and were attacked by the other wing, which occupied a position above them. The attack was so swift and fierce that within a half-hour the whole work was ended—and not an adult Indian left to tell the tale. Some twenty-eight or thirty small pap-poses were spared and brought to Tucson as captives. Not a single man of our command was seriously hurt to mar the full measure of our triumph, and at eight o'clock on the bright morning of April 30, 1871, our tired troops were resting and breakfasting on the San Pedro a few miles above the post, in the full satisfaction of a work well done.

"Here I might lay down my pen and rest, but believing that in order to fully vindicate those who were actors in this drama, and those who were aiders and abettors, I crave your indulgence while I give a brief summary of the causes which drove our people to such extreme measures, and the happy effects resulting therefrom.

"Through the greater part of the year 1870 and the first of 1871, these Indians had held a carnival of murder and plunder in all our settlements, until our people were appalled and almost paralyzed. On the San Pedro, the bravest and best of its pioneers had fallen by the wayside—instance: Henry Long, Alex. McKenzie, Sam Brown, Simms, and many others well known to all of you. On the Santa Cruz, noble Wooster, his wife, Sanders, and an innumerable host, slept the sleep that knows no waking. On the Sonoita, the gallant Penningtons, Jackson Carroll, Rotherwell, and others, slain, and Osborne, our secretary, seriously wounded, without a chance

of defense. In the vicinity of Tucson, mail drivers and riders, and almost all whom temerity or necessity caused to leave the protection of our adobe walls, piteously slaughtered, makes the array truly appalling. Add to this the fact that the remaining settlers on the San Pedro, not knowing who the next victims might be, had at last resolved to abandon their crops in the fields and fly with their wives and little ones to Tucson for safety, and the picture of misery is complete up to that memorable and glorious morning of April 30, 1871, when swift punishment was dealt out to these red-handed butchers, and they were wiped from the face of the earth.

"Behold now the happy results immediately following that episode! The farmers of San Pedro return with their wives and babes to gather their abandoned crops. On the Sonoita, Santa Cruz and all other settlements of Southern Arizona, new life springs up, confidence is restored, and industry bounds forward with an impetus that has known no check in the whole fourteen years that have elapsed since that occurrence.

"In view of all these facts, I call on all Arizonians to answer on their consciences: Can you call the killing of the Apaches at Camp Grant on the morning of the 30th of April, 1871, a massacre?"

From 1871 to 1875 Gen. George Crook was employed in removing the various Indian tribes to the reservations which had been prepared for them by the Government. After much difficulty and considerable bloodshed he succeeded in placing 5,000 of them upon their reservations. The Chiricahuas and Warm Spring Apaches still remained out engaged in their old pastime of theft and murder. It was hard for the Apaches to yield. For many years they had preyed upon the country south of the Gila far down into Sonora, and the success of their raids in cattle, sheep, horses and captives was so great that they resisted the demands of the Government until they were forced into subjection.

*It was nearly four months after Gen. Crook had gathered in the numerous bands of marauding Apaches, and placed them under military control on the reservations, before it was possible to lie down at night, or even to travel from place to place, without fear and trembling. Former

*The Hassayampa Raid, by P. C. Bicknell, of Phoenix.

horrors were forgotten, and men were at their ease and off their guard. But the poor Indians were suffering from ennui. To be sure, the Government furnished them fresh beef and flour in abundance, and they had nothing to do but eat and sleep and beat their squaws; but they had had no fun with the whites for ever so long, and they pined for a little excitement. So one day a large band of them stole away from their reservation on the Verde River, and headed for the vicinity of the mining camps on the Hassayampa. They had some squaws with them, for they intended to take a good, long holiday, and the gentle squaws could not bear to forego the pleasure of torturing the white prisoners, of whom it was hoped there would be many. They belonged to that branch of the Apache nation known as the Apache-Mohave, and there were just 125 of them in all—for their dead bodies were carefully counted the following week, after they had enjoyed their little time. As they wound in single file over desert and mountain, a long line they made and a deep and lasting trail they cut in the barren soil.

It was mid-afternoon on the 13th of May, 1873, when the snake-like procession wound down through a dark, narrow ravine to the deep cañon of the Hassayampa, and, crossing quickly over the dry bed of the stream, disappeared noiselessly among the huge boulders that lined the opposite side and covered the abrupt slope of the overhanging mountains. It was a lonely spot. For several miles up and down the stream the rough, precipitous mountains that hemmed it in on either side were undisturbed by human presence. Four miles below was Smith's mill, a ten-stamp quartz mill that had just been completed; and five miles above was Ed. Lambley's ranch, where the water of the river came to the surface for a short distance, before sinking again in the sandy channel. There was no one in sight as the Indians waited behind the boulders, but a wagon road passed up the cañon from Smith's mill to Lambley's ranch, and thence to the mining camp of Wickenburg, still further above, and "all things come to him who waits."

Soon Gus Swain came driving his mules slowly along the sandy road, his rickety wagon filled with empty barrels. Gus was bound for Lambley's ranch, where he would fill the barrels with water and haul them out to his camp, fifteen

miles down the road to Phoenix, where he and his partner were digging a well, to accommodate the travel. As he neared the group of boulders, it is strange that his mules did not give him warning that death lurked behind them, for his off mule was noted for its intense dislike for Indians. It was well known among all Gus' friends that "Bailey," as he was called, could scent an Indian several hundred yards away, and could not be induced to approach one of the loud-smelling wretches. His dislike seems to have been prophetic, for he was destined to be eaten by them in the end. That is what the boys said when poor Swain's body was found the next day, mutilated in an unspeakable manner, lying in the sand beside his deserted wagon. But there was the wound of a big musket ball in his breast, and they breathed easier when they saw that proof that death had saved him from torture. The tracks showed how the Indians had swarmed around the wagon, and that they had led away one of the mules, but had butchered the other on the spot. Not a trace of the latter was left on the ground, except the contents of its paunch, and a few splashes of blood. Then, each one carrying a share of the slaughtered animal, they climbed to the summit of the rough, boulder-strewn mountain, still in single file, and building a score of little fires that made no smoke to betray their presence from a distance, they roasted and feasted and made merry. But all the time they kept a sharp lookout; for from their elevation they could see far up and down the lonely road.

Soon word was passed that a white man was coming down the cañon, and a party of them descending the mountain, again waited behind the boulders. The man was on foot, and as he came nearer they could see that he was a well-formed, handsome young fellow, over six feet in height, and that he carried an ivory-handled six-shooter slung to the cartridge belt that encircled his waist. No one knows exactly what happened next, but it is certain that he must have been startled out of his presence of mind—perhaps by their diabolical yelling or perhaps by an arrow whizzing by him—and failed to use his pistol. The tracks in the sand indicated that on coming opposite the ambush he started to run west across the cañon, and that fifty or more of the savages took after him, catching him under

the cliffs on the opposite side. This would never have happened if he had pulled his pistol and faced them. They would have been compelled to shoot him dead, and thus he would have avoided the awful torture that followed. The Apache has no intention of risking his life, and a thousand of them would not approach one man in the open if the man had a loaded revolver in his hand and threatened to use it. On the spot where they captured him they stripped him to the skin, appropriating all his clothes except his stockings, which latter articles they left lying on the sand. Next they led him back barefoot across the channel, and up the rocky, cactus-covered mountain to their camp at the summit, prodding him, no doubt, with their arrows at every step. They probably delivered him, as is their custom, to the tender mercies of the squaws; and what agony he was forced to endure before death released him is fearful to contemplate.

George Taylor was the eighteen-year-old son of the superintendent of Smith's mill and resided in the building with both of his parents. He had been dispatched to Lambley's ranch that morning to attend to some work on the flume which delivered water to the mill, and to turn on the water for the first mill run. P. W. Smith, the mill owner, had brought him as far as the ranch in his buggy and had gone on to Wickenburg, intending to call for him on his return that same evening. After completing his work on the flume, young Taylor had decided not to wait for Smith, but to return on foot, as there still remained several hours of daylight, though Lambley, who liked the boy, urged him strongly to spend the remainder of the afternoon and the night at the ranch. He could not be persuaded, however, for, said he, "mother will be too anxious if I do not get back before dark. She will think of Indians and everything under the sun." That was the last seen of him alive; and the poor mother waited for him in vain.

In due time Smith stopped at Lambley's in his buggy, and learning that the boy had gone, allowed himself to be persuaded into spending the night. Smith always claimed, afterward, that it was Ed. Lambley's sister-in-law who decided him on remaining and thus saved his life. He subsequently married her. The next morning at Smith's mill, McDonald, one of the mill men, had to go to Wickenburg, and saddled his

horse at sunrise. The non-arrival of Smith and George Taylor on the preceding night had occasioned no anxiety, as it was supposed they had remained at the ranch, and Indians were not thought of, since they were supposed to be all under the eye of the military on the reservations. As McDonald was about to ride off, he shouted to Cooper, a fellow workman at the mill, "I left my six-shooter under my pillow, but I guess I won't need it. Look after it till I come back." But Mc never came back. Death still lurked behind those fatal boulders, and as he passed opposite them on his big gray horse, there was a whirr of arrows—and he was sent to meet Gus Swain and George Taylor. That must have been about 7 o'clock in the morning, for at 8 o'clock Smith came along in his buggy, and, discovering the two dead bodies, did not need to be told what was wrong, but turned his horse and hurried back to Lambley's. That he was unmolested was proof that the murderers had departed.

The next day a party started out to bury the bodies and to hunt for young Taylor or his remains; also to note which way the Indians had gone and whether they were still lurking in the vicinity. The party was a small one, for there were not many men in the settlement; but it was not their intention to attempt an engagement with so large a body as this was known to be. However, a swift courier had been dispatched at once to the military post at Date Creek, forty miles from Wickenburg. The party, on reaching the scene of the murders, followed the well-worn trail leading to the mountain-top where the Indians had camped, and there, surrounded by the clean-picked bones of the butchered mule, they found the body of the unfortunate boy, stripped and horribly mutilated. Their indignation and horror at the sight were so intense that not a word was uttered. And what made it more terrible was the fact that they could not comfort themselves with the thought that these tortures had been inflicted after death. The body was covered from head to foot with thorns and burrs, showing that the fiends had rolled him in a bed of cactus. He was lying on his back with his knees drawn up, and a row of twelve arrows sticking in a straight line down the center of his body, commencing at his throat. His ankles, also his wrists, were firmly bound, and his arms were stretched upward and backward before his

face, so that the bend of the elbows held close against his mouth, from which the lips had been cut away, the backbone of the mule, as though he were gnawing it. The eyelids were split, and the ears were cut off close to the head—but why dwell on the shocking scene? He who could have looked at it unmoved and without being stirred with a desire for terrible vengeance would not be human. In order to spare his parents the awful sight the body was buried without delay, before they had been notified that it had been found.

Another day passed, and then a detachment of United States cavalry arrived from Date Creek, supported by a company of Indian scouts, and took up the well-defined trail, which led eastward over unexplored mountain ranges. They found where the renegades at their next halting place had killed and eaten the other of Swain's mules, and, as before, had consumed it entire, leaving nothing but the clean, picked bones; and the following day they fell in with a strong scouting party from Fort McDowell, who had heard from Camp Verde that some Indians had escaped from the reservation and had been sent out to intercept them. The two parties so opportunely met joined forces forthwith, and late that afternoon the scouts brought in word that their quarry had gone into camp a short distance ahead of the column. It is probable that the marauding party had sent back spies for the first day or two, and thus learning that they were not being followed—for the troops did not take the trail until the third day after their departure—they had grown careless and relaxed their vigilance. By the waters of a crystal spring, in a deep, secluded valley walled by high mountains, the murderers had chosen their resting-place. They had butchered the large gray horse ridden by McDonald, their third victim, and were feasting and making merry in fancied security. The bucks were lying around at their ease, without their arms, while the squaws roasted great hunks of flesh at the camp fires, and waited on their lords. Silently the stern-faced troops closed in around them, and at a signal volley after volley was poured into them from every side. There was no chance of escape. Panic-stricken, they rushed to and fro within the circle of belching flame and smoke. In a few minutes all was over. Their little pleasure trip was over—and their victims were avenged.

The Aravaipa branch of the Apaches had lived

north of the Gila; the Tontos north and west of them; and the Coyoteros east in the White mountains. They were swift, brave and keen of observation and intellect. The country south of the Gila supported them. In the matter of surprising a settlement, running off the stock and taking captives, no tribe could surpass them, nor no people thwart them. They delighted in it, and no wonder they fought sullenly and desperately to retain their coveted privileges. As a matter of fact they had, at one time or another, captured nearly every town in northern Sonora, which included Arizona. The above branches of the Apaches, together with the Chiricahuas, another branch, had carried the raids to such an extreme that in time few cattle and horses were raised by the whites in that district; and the few were raised mainly by the sufferance of the Indians that they might afterward steal them. Many of the best farms in Sonora and Arizona were abandoned. Hundreds of white women were captured and compelled to become the slaves or wives of the Indians, and after the birth of their half-breed children had no wish to return. Young boys were captured and reared to the wild and savage life of the Indians, losing their names and identity, and becoming permanent members of Indian tribes.

But they were finally conquered and placed on reservations. In the '60's and '70's war was made upon them so persistently, so vigorously, and in such force, that they sued for peace. They lost many of their best warriors and many of their women and children. After they had been placed upon the San Carlos reservation, they made two hostile and violent outbreaks, but were promptly subdued.

The Chiricahuas lived mainly in the Chiricahua and Dragoon mountains, and years ago were governed by the celebrated chief Cochise, who was one of the most intelligent, sagacious, widely-known and prominent of all the Apaches. For twelve years during the '60's and '70's his band terrorized Arizona, torturing and killing hundreds of citizens. He claimed to have suffered great wrongs from the whites, and declared he would have his revenge, and he did so. As a matter of fact, when he finally submitted he was given his own terms and was enticed to the reservation.

A portion of the Apache Indians, confined

upon the San Carlos Reservation, raided upon the settlements adjoining their reservation in 1882, dealing death and destruction in all directions. On the morning of April 19th, Loco's band of Chiricahuas broke out, and after killing the chief of police, entered the valley of the Gila, and it is estimated that sixty industrious citizens fell a prey to their thirst for blood. The military force of the Territory was so few in number, and so much scattered in the various parts of the Territory, that the raid was continued by the Indians almost without interruption until they reached the boundary line between Arizona and Sonora. Gen. Wilcox, then in command of this department, moved his forces with great activity, and the general of the army, as well as the Secretary of War, responded promptly by sending more troops into the field, and several engagements took place within a few miles of the Sonora line, in which a number of the Indians were killed. The *Arizona Silver Belt*, published at Globe, said:

"In anticipation of the return of the Chiricahuas to the San Carlos Reservation, the San Carlos Indians, who have been making their homes on the east side of the San Carlos River, have removed to the west side of that stream with a view of better protecting themselves and stock from the thieving and murderous Chiricahuas. Other tribes, the Apache-Yumas and Apache-Mojaves, are no better pleased with having the Chiricahuas as neighbors. These tribes, including the San Carlos, collectively number about 1,800. Already the Coyotero-Apaches (George's Band) are manifesting dissatisfaction, not because of the arrival of the Chiricahuas, their friends, but for the reason that they have been refused rations, because of their refusal to work. This band, who were refused food, returned to Cibicu, or that neighborhood. Cibicu, it will be remembered, is where the White Mountain Indians attacked Gen. Carr's command, and killed Capt. Hentig and nine privates."

"It affords food for pleasant reflection," says the *Phoenix Gazette*, "to know that the last of the renegade Apaches have returned to the San Carlos Reservation, where they are held as prisoners of war. Hence the Mexican government cannot carry to our door the complaint that American Indians are responsible for all the devilment committed in their northern States, while

our own settlers near the border, will be, for the time being, free from the annoyance and damage resulting from the predatory raids of the savage fiends. If the Government would heed the wishes of the people of Arizona, and conserve its own interests at the same time, the Apaches would at once be removed from proximity with the border.

"It cannot be denied that the outbreak of 1882, which has been so prolific of injury to every interest of our Territory, was directly the result of culpable negligence and inefficiency on the part of the commander of this department. Being unable to suppress the uprising when fully informed in the premises, Gen. Wilcox was also unequal to the task of quelling the insurrection when it had occurred. With Geronimo's surrender, Gen. Crook has succeeded in securing the last Apache chieftain still surviving, who has left the reservation during the past few years. The authorities have virtually put him in control of the San Carlos Agency."

Mangas Colorado, or Red Sleeves, was, undoubtedly, the most prominent and influential Apache who has existed for a century, according to Capt. Cremony. Gifted with a large and powerful frame, corded with iron-like sinews and muscles, and possessed with far more than an ordinary amount of brain strength, he succeeded, at an early age, in winning a reputation unequaled in his tribe. His daring exploits, his wonderful resources, his diplomatic abilities, and his wise teachings in council soon surrounded him with a large and influential band, which gave him a sort of prestige and sway among the various branches of his race, and carried his influence from the Colorado River to the Guadalupe mountains. Throughout Arizona and New Mexico he was a power in the land.

Mangas, in one of his raids into Sonora, carried off a handsome and intelligent Mexican girl, whom he made his wife, to the exclusion of his Apache squaws. This singular favoritism bred some trouble in the tribe for a short time, but was suddenly ended by Mangas challenging any of the offended brothers or relatives of his discarded wives. Two accepted the wager, and both were killed in fair duel.

By his Mexican wife, Mangas had three really beautiful daughters, and through his diplomatic ability he managed to wive one with the chief

of the Navajos, another with the leading man of the Mescalero Apaches, and the third with the war chief of Coyoteros. By so doing, he acquired a very great influence in these tribes, and whenever he desired, could obtain their assistance in his raids.

His height was about six feet; his head was enormously large, with a broad, bold forehead, a large, aquiline nose, a most capacious mouth, and broad, heavy chin. His eyes were rather small, but exceedingly brilliant and flashing when under any excitement—although his outside demeanor was as imperturbable as brass.

In truth, he was a wonderful man. His sagacious counsels partook more of the character of wide and enlarged statesmanship than those of any other Indian of modern times. His subtle and comprehensive intellect enrolled and united the three principal tribes of Arizona and New Mexico in one common cause. He found means to collect and keep together, for weeks at a time, large bodies of savages, such as none of his predecessors could assemble and feed. He quieted and allayed all jealousies and disagreements between different branches of the great Apache family, and taught them to comprehend the value of unity and collective strength.

Although never remarkable for personal prowess and courage, he knew how to evoke those qualities in others and appropriate the credit to himself. Crafty and skilled in human nature, he laid plans and devised schemes remarkable for their shrewdness of conception and success in execution. In council he was the last to speak, in action he was the last to come on the field, and the first to leave if defeated; yet he had the reputation among all his people of being the wisest and bravest. That he was the wisest has never been denied; that he was the bravest has never been proved. But, take him for all in all, he exercised an influence never equaled by any savage of our time, when we take into consideration the fact that the Apaches acknowledge no chiefs, and obey no orders from any source. They constitute a pure democracy, in which every man is the equal of every other.

The life of Mangas Colorado, if it could be ascertained, would be a tissue of the most extensive and afflicting revelations, the most atrocious cruelties, the most vindictive revenges, and wide-

spread injuries ever perpetrated by an American Indian. The acts of Mangas Colorado, could they be known, running through a series of fifty years, for Mangas was fully seventy when sent to his last account, would thrill the reader with horror. The northern portions of Chihuahua and Sonora, large tracts of Durango, the whole of Arizona, and a very considerable part of New Mexico, were laid waste, ravished, destroyed by this man and his followers. He made the Apache nation the most powerful in the Southwest.

A strip of country twice as large as all California was rendered almost houseless, unproductive, uninhabitable, by his active and uncompromising hostility. Large and flourishing towns were depopulated and ruined. Vast rancheros, such as that of Barbacomori and San Bernardino, once teeming with wealth and immense herds of cattle, horses and mules, were turned into waste places, and restored to their pristine solitudes.

The name of Mangas Colorado was the tocsin of terror and dismay throughout a vast region of country, whose inhabitants existed by his sufferance under penalty of supplying him with the requisite arms and ammunition for his many and terrible raids. He combined many attributes of real greatness with the ferocity and brutality of the bloodiest savage. The names of his victims, by actual slaughter or by captivity, would amount to thousands, and the relation of his deeds, throughout a long and merciless life, would put to shame the records of any other villain.

The most immediate advisers and counselors of Mangas Colorado were El Chico, Ponce, Delgadito, Pedro Azul, Cuchillo Negro, and Collitto Amarillo, and all were prominent Apaches. They were one by one sent to their long accounts by the rifles of California soldiers and Arizona citizens, but not without great loss of life by these Indians, the recital of which would make the blood curdle.

Delgadito, the celebrated Apache, was killed by a Mexican, whom he was endeavoring to dupe and destroy. They were fording the Mimbres River on foot, and upon reaching the eastern bank, Delgadito caught hold of the projecting branch of a tree to assist himself, when the Mexican took advantage of his momentary neglect, and plunged his knife through the Indian's heart from behind. It is an actual fact that the dead

savage was found, the next day, still clinging to the branch.

Collitto Amarillo, Ponce, and his son were killed by California soldiers during the Civil War.

Mangas Colorado was wounded at his disastrous defeat in Apache Pass. He had a ball in his chest, fired by John Teal. It was owing to this chance shot that the Apaches abandoned their attack upon Teal in order to give succor to so prominent a man as Mangas. He was carefully conveyed to Janos, in Chihuahua, where he received the enforced attendance and aid of a Mexican physician, who happened to be in that place at the time. It was a case of the practice of surgery under unique circumstances. If the patient survived, well and good; he would return to his native wilds to again renew his fearful devastations; but if he died, the doctor and all the inhabitants were assured that they should visit the spirit land with him. The ball was extracted, Mangas recovered, and the people were saved; but his was a short lease of life. He was soon afterward captured by Capt. E. D. Shirland, of the First California Volunteer Cavalry, and killed while attempting to effect his escape from the guard house. His skeleton was prepared for exhibition. The jaws possessed two sets of teeth in each. 2

Cochise was the famous leader of the Tontos, a branch of the Apaches, and probably the next most noted Indian after Mangas Colorado. On June 8, 1874, Cochise died on the reservation.

On April 6, 1876, Pionsenay killed Messrs. Rogers and Spence at Sulphur Springs. He was pursued by the military, but not captured. In May those Indians were ordered removed to San Carlos. A column of troops was sent into the San Simon Valley, and another column into the Sulphur Springs Valley, while another party proceeded to the agency at Apache Pass, with a bodyguard of San Carlos police.

The night before arriving at the agency, the faction under Skinya, head war chief under Cochise, and his brother, Pionsenay, insisted that all the Indians should leave the reservation and go into Mexico. The sons of Cochise opposed this stoutly, and a bitter fight ensued, in which Skinya was killed and Pionsenay wounded. Skinya was shot through the head by Natchee, the younger of the Cochise boys, and Pionsenay was shot through the right shoulder by Taza,

the elder son. Pionsenay was arrested and started for Tucson; but was turned over to Sheriff Shibell and Deputy A. Lynn, who had a warrant for him.

As a race the Apaches are lazy, thievish and murderous, seemingly incapable of civilization. Fed and clothed by a generous government, they are ever ready to show their base ingratitude by going on the warpath and murdering peaceful and inoffensive citizens. On every hill and mountain top and in every valley of Southeastern Arizona, the bleached bones of the assassinated victims of these incarnate fiends are to be found—silent but eloquent witnesses of the unwise policy of the Government in herding this festering mass of superstitious, criminal ignorance on a reservation 60 miles long and 20 miles wide, and allowing them possession of the most improved firearms and ammunition, so that when tired of the bounties of their benefactors they are able to swoop down in the vengeance of their savage brutality upon innocent and unsuspecting men, women and children, murdering them at will. The sturdy pioneer of advancing civilization, striking earnest blows in the development of its outpost, is entitled to greater protection than this. Security of life, limb, and property is one of the guarantees of government.

"Sons of hell," it is claimed, the Apaches always were.* In early days they were treacherous, just as they have been since, and unworthy of trust, and without the slightest honor. A man's life was taken in his hand when he went a mile from town, from danger of a lurking fiend, armed to kill, behind some bush. Men have been killed as near as Silver Lake. About Tucson in those days was a succession of bloody horrors, at the hands of the Apaches. Every chance was given the Indians to behave, and they were pressed with threats if they did not cease depredations. They might as well have tried to stop the wind from blowing. Once the Indians gave a smoke signal for peace, and the soldiery went to them. They proposed being on their good behavior, which offer was gladly accepted. Forthwith, good land was turned over to them to work, among it a ranch belonging to Mr. Drachman. The Indians were put at

[The account of Mangas is taken largely from Cremony's "Life Among the Apaches."]

*Article by S. H. Drachman, of Tucson.

cutting hay on a Government contract. For a few days those bucks worked, and then they went off on another killing expedition, leaving the women to work at the hay. When Mr. Drachman got back to Tucson he heard great indignation expressed at the red devils.

Soon after, the famous Camp Grant Massacre occurred. An armed party of a hundred men left town for the Indians, and killed 197 of them, returning in safety to town. Then followed a "trial." Of course it was a fiasco, as no Tucson man would condemn another for killing Apaches. One hundred men were tried for murder, all in one day, and all of them cleared.

On or about October 4, 1881, the Chiricahuas made their first raid from the reservation, with a band numbering from 150 to 200 bucks, led by Juh. They left the sub-agency above San Carlos, during the night, striking southeast. The next day they attacked Samaniego's wagon train near Cedar Springs, killing Bartols Samaniego and six of his teamsters, and plundering the wagons. While committing this depredation they were surprised by three troops of cavalry under Capt. Bernard, First Cavalry, who was en route to Fort Grant with twenty Indian prisoners. The Indians retreated along the wagon road toward Fort Grant, meeting and killing a telegraph repair party of five men. Being pressed by the troops they went into the foothills of the Graham mountains, about seven miles from Fort Grant, where they stood off the troops until dark, and then crossed the Aravaipa Valley and camped for the night on a small stream near the Galiuro mountains, twelve miles from Hooker's ranch. The day following they killed and ran off a large amount of Hooker's stock, attacked Hudson's ranch, killed a man at Point of Mountains, and then crossed the line of the Southern Pacific at Dragoon Summit, which range they followed southward. At Dragoon Summit the cavalry struck their trail, and followed them to the line of Old Mexico.

Juh crossed the border and his band remained south of the line about two years, committing many depredations, and many lives were lost.

In April, 1882, emissaries of Juh arrived at San Carlos from Mexico, being sent there by that wily chief to stir up another outbreak on the part of the Chiricahuas. The result of this was that about 160 bucks, accompanied by their squaws

and children, left San Carlos under the blood-thirsty chief Loco. They started eastward through the Ash Creek flat. On the Apache road twenty miles north of the Gila, they were attacked by the United States Cavalry under Capt. Overton, where they succeeded in defeating the troops and continued their march toward Eagle Creek. At a sheep ranch at the head of the Gila Bonita they killed eleven people—men, women and children. The skulls of the men were crushed in with stones and their bodies otherwise horribly mutilated. A small child was thrown alive on a cactus bush, where it was tortured until death relieved it of its sufferings. Another child of the same party was suspended by the feet from the limb of a juniper tree, over a slow fire, where it was burned to a crisp. The stock was also run off from this ranch, after which the Chiricahuas continued their way to Eagle Creek, and committing depredations on that stream, Loco and his band struck the San Francisco River four miles below Clifton, and twelve miles further on he reached the Gila, which he followed up as far as York's ranch, where they murdered F. B. Knox, and leaving in their wake a scene of desolation and death; women mourning their dead, the smoking ruins of once happy and prosperous homes; abandoned wagon trains on the road, while the road was strewn with carcasses of horses and mules—shot down in their harness. From York's ranch, Loco started southeast toward Stein's Pass. Near Horse Shoe Cañon the rear portion of his band was overtaken by the Fourth Cavalry under Lt.-Col. Forsythe. The troops lost several killed and wounded, without stopping the marauding Indians or doing them any harm. From this point Loco and the greater portion of his warriors followed the Stein's Peak range into Mexico; one part of his band crossed the San Simon and appeared in the vicinity of Galeyville. In a four days' raid through Southeastern Arizona the band of Loco killed over 60 people—men, women and children; destroyed property valued at nearly \$100,000, and ran off hundreds of head of valuable stock.

Near the Animas mountains, in Sonora, Capt. Tupper, Sixth Cavalry, surprised the hostile camp, killing 35 and driving them southward, where they ran against the Mexican forces under Col. Garcia, who nearly annihilated the band on



*Yours truly
Morris Goldwater*

the Carrolitos River, killing Loco and eighty of his men, those who escaped joining Juh in the Sierra Madres.

In the spring of 1883 the remnants of Juh's and Loco's bands, under Chatto and Bonito, came up from Mexico into Arizona and New Mexico. They divided into two parties, one for each Territory.

Bonito entered Arizona west of Fort Hanchuca, killing and depredating a few miles from that coast. He crossed the Southern Pacific Railroad ten miles east of Pantano, visited the San Pedro; then crossed over toward Point of Mountains, killing three men near Winchester, one of them the brother of Judge Dibble of Tombstone. Thence this band continued east, crossed Sulphur Spring Valley, entered the San Simon, whence they returned to Mexico, having committed numerous depredations. During this raid the military in Arizona accomplished but little.

Chatto, with his following, went into New Mexico, and while on their march surprised Judge McComas and family, who were traveling through the territory, killing the judge and his wife in Thompson's Cañon, near the Upper Gila, and mutilating their bodies in the most horrible manner, especially that of Mrs. McComas, and carrying their little boy Charlie into captivity, and notwithstanding the many reports that he was carried into Mexico, and was in the rancheria in the Sierra Madres when it was attacked by Capt. Crawford and his scouts, we believe the following story told by a San Carlos scout, and think it the true account of his fate. After murdering his father and mother, Charlie was taken by a buck and put on his horse before him. He had been carried about seven miles, and as he continued to cry and sob for his parents, and made considerable noise, it irritated Chief Chatto to such an extent that he ordered the Indian who was carrying the boy to kill him, and, acting upon the order, he raised him from the horse by the hair, plunged a knife into him, and threw his body into an arroyo.

Shortly after his return from the Sierra Madres in 1883, Geronimo's appearance was not prepossessing. His face was keen, cruel and calculating, the narrow forehead and firm lips indicating a superior degree of craftiness, and a cold, sinister, sneering, character. His appear-

ance showed the strong muscular proportions of the physical man.

From ex-Sheriff George H. Stevens, of Graham County, whose long association with the Apaches and complete familiarity with their language has given him special advantages for obtaining information, it is learned that Geronimo is a full-blooded Chiricahuan Apache, and that his Indian name is "Puee-ahl-ly." He joined the Warm Spring Indians for a short time after the killing of Rodgers and Spencer, at Sulphur Spring, and came to San Carlos for the first time among the Indians brought in during Gen. O. B. Wilcox's command of the department, and was among the Indians that Capt. Haskell, of Gen. Wilcox's staff, made a treaty with and took to San Carlos. At that time he was not looked on as a chief by other Indians, although he was one of their head men. He left the reservation with the rest of the Chiricahuas in 1881, at the time of the killing of Samaniego and his teamsters at Cedar Springs. He returned to this country on a raid at the head of a band of Indians, in April, 1882, at which time he killed ten persons at Stevens' sheep camp before reaching the San Carlos Agency, for which place he was en route with intentions of wreaking vengeance on certain bands there and to persuade the Warm Spring Indians under Loco to join him. From that time he has seemed to take the lead in most of their deviltry.

From Mr. E. B. Learned, now residing in New Mexico, the following particulars regarding the raid of Geronimo and the practices of the Apaches in warfare, have been obtained. They are given in Mr. Learned's own words:

"Since 1876 Geronimo has been a leader of the renegades, and notwithstanding that he has been twice the prisoner of the civil, and twice of the military authorities, he has, through the years since that day, left his trail of blood through Arizona, New Mexico and Sonora; and though ostensibly a prisoner of war for years past, he has again raided the country with his desperate band. During 1876-7, the military and civil authorities exerting themselves, he was captured at Ojo Caliente and carried in irons to San Carlos for trial. He was finally released by the military, and this after a vast expenditure to secure his capture. Now follows a most extraordinary and inexplicable record in the treating of

this renegade. As stated, he was given his liberty in August, 1877. He remained upon the reservation about four or five months, and then started on another raid. After depredating in New Mexico and Old Mexico for a year and a half he surrendered at Camp Rucker. He was held a prisoner of war a brief time and then escorted to San Carlos, where, after a brief imprisonment, he was again turned loose upon the reservation.

"He remained there till 1881, when, without provocation, he again took the warpath. Raiding all the way and pursued by the troops, he finally brought up in the Sierra Madres. In 1882, a portion of his band under one of his lieutenants returned to San Carlos, killed Chief of Scouts Sterling, and, inducing a number of Warm Spring Apaches to join them, started on another raid in 1883, in which over fifty settlers and many prominent citizens, including Judge McComas and family, were massacred. 'Closely pursued' by the troops, they leisurely and without the loss of a man returned to the Sierra Madres in Mexico. Here, the same year, Gen. Crook paid him a visit, accompanied by United States troops and about three hundred Indian scouts. He did not capture the renegades, but after a parley, returned to American soil. Six months after, when the excitement had died down, Geronimo and his men appeared at the 'line' with a large herd of stolen stock. By arrangement he was met by United States troops under Lieut. Davis and escorted safely to San Carlos, where he remained until recently a prisoner of war. The United States customs officials, its owners and all others, were prevented from disturbing the renegades in the possession of their stolen stock, and the same was subsequently sold at the agency for their benefit under the direction of the military.

"During the last twelve years the Apaches have butchered, in cold blood, over one thousand men, women and children in these two Territories. Victorio's band alone slew over four hundred people in two years. The author of this article has, within six years, with his own hands, helped to lay in their graves over forty human beings, mangled almost beyond recognition. What swells the amount on these raids is the large number of bodies of miners, prospectors, herd-ers, etc., that are found scattered over the coun-

try after the raid is all over, and which, during the raid and its excitement, are no factor in the lists of killed and wounded.

"The renegades watch and are acquainted with every movement of the soldiers, and the idea that the former are going to be stopped by any of his companions watching a trail is ridiculous. A detour of a mile and they have passed the soldiers, who, Gen. Crook thinks, will stop them. The General's great hobby is his Indian scouts, with which he expects to run down the renegades.

"These scouts are mostly Apache Indians, friends and relatives of Geronimo's band. Time and again it has been charged that when the troops were getting near to the hostiles, these scouts would lead the troops away from the pursued, allowing them to escape. Chatto, the leader of the band sent up from Mexico by Geronimo in 1883, in which raid Judge McComas and family and many others were killed, is to-day lieutenant of Davis' government scouts. Bonito, another red-handed villain, who participated in that same raid, is also with Davis, trailing the hostiles. Natcha, now with the hostiles, was a government scout a year ago. Victorio was formerly a government scout, and so have been nearly all the leaders of the Apache outbreaks. This scouting is simply a training-school for hostile leaders. In the field as government scouts they may be in constant communication with the pursued, furnishing them with full information as to army plans, and protect them to the best of their ability. Army officers, in denial of this, assert that there has been a number of scouts killed by the enemy. In seven years there may have been ten scouts killed, but as the troops, in company with the scouts, have had many brushes with the renegades, that number could easily have been accidentally shot. In a fight the scouts fire as many shots as the troops.

"Where their bullets are aimed is another thing. An idea is prevalent in the East that these renegades travel with the speed of the wind, and as far as 75 to 100 miles at a spurt. This is erroneous. When a band breaks from the reserve, they take their women and children, frequently their old men, their wickiups (tents), and much provisions. Such an outfit is not calculated to travel at lightning speed, and as every-

body fears them they generally take their own time. That this is true is shown in the present outbreak. From the day they left San Carlos up to the time the military reported the majority in Old Mexico, covered three weeks, and their route can be measured inside of 225 miles. For several days they lay around within five to twenty miles of Fort Bayard (military headquarters) and quite a large band of them committed murders within three and one-half miles of the post. Within twenty minutes of this occurrence, the officer of the post was notified. Refusing to believe it until a man shot through the thighs ran into the post on a barebacked horse, he then rustled out the troops. The Indians had thirty minutes start—two minutes would have done as well.

"If it gets too hot for the renegades they can surrender and are insured good treatment. But for the soldiers certain death awaits defeat or wounds preventing him from joining his command. Apaches fight solely under the black flag.

"Those they capture are frequently tortured and always killed. Under these circumstances, in a degree the result of the "Great Indian Fighter's" policy, the troops are a failure and farce on this frontier. Every Indian outbreak costs us many lives and hundreds of thousands of dollars, while to suppress the outbreak puts the government to an expense of from \$300,000 to \$500,000 for each occurrence. These enormous annual expenditures are simply a votive offering by the national taxpayers to the maudlin sentiment of eastern novel-readers and sentimentalists. In reality, the Indians are about the ugliest and filthiest brutes on the globe—lying, thieving, gambling cut-throats, who, when a beef is cut up and distributed among them, will quarrel over the entrails, and eat the filthy stuff either raw or half-cooked. Neither have they any wrongs. They have an immense tract to roam over, are kindly treated, clothed and fed, and their devilry is committed from a natural love of blood and slaughter. To the settler the Apache is the most cruel, bloodthirsty and dangerous foe known.

"The traveler is passing along the trail or road; his dusky foe, concealed behind a rock or cactus within twenty or thirty feet, waits until he is directly opposite. A volley is poured into him and he falls. He is then robbed and his head

pounded into jelly with rocks, or otherwise mutilated. The Pocahontas-like maidens, being handy with rocks—always do the smashing and torturing. But suppose the traveler is missed by the volley, and is lucky enough to run to a near shelter of rocks or depression in the ground where their bullets cannot reach him. Then, if even a hundred to one, he is safe. They will not risk even a single life to get him out by force, though he has killed a dozen of their number. The savages take such a dead-sure thing, however, that a person rarely escapes. To illustrate the atrocities of the Apache I will describe a scene I witnessed during the Victorio outbreak.

"The day previous a party of Hillsboro citizens had started after the renegades, and, finding them close by, a hot fight ensued. Victorio's party largely outnumbered the citizens, who were badly whipped, losing half their number in killed. The fight occurred near Lake Valley, and in the vicinity of a ranch which was the home of twelve people. The day after the fight news came that this ranch had been attacked, and some twenty of us saddled up and rode over to see what damage had been done. Arrived there, a sight presented itself that drew tears from the strongest men. In the house and around it was one large slaughter-pen—blood and brains on the wall inside and on posts and ground outside; large streams and splotches coagulated on the hard dirt ground: bunches of hair and bits of human flesh in every direction. Lying in the midst of this were the bodies of two men, two women and six children, all cut and slashed and bruised till but their raiment reminded one that they were human beings. Outside the door on a sharpened wooden peg, used to hang meat, was impaled a babe of six months, the peg having passed through its body and six inches beyond. On a hillside covered with loose rocks, near the house, we found the twelfth, uninjured. When the Apaches attacked the house, he escaped, and lying down, witnessed the massacre. Uninjured, did I say? Yes; but what the day before had been a bright, intelligent boy, was to-day a gibbering maniac. We took him to the house, and he laughed in merry glee over the corpses of his parents and playmates, and to this day he remains the same. This is only one of the similar yearly episodes authorized by the Quaker policy of the War Department.

"What the citizens demand is, that the scouts be discharged; that every hostile Indian found off the reservation and captured shall be turned over to the civil authorities; that the Indians at San Carlos be completely disarmed, or that the reservation be abandoned. If these demands are acceded to, well and good. If not, the San Carlos reservation will be raided and thousands of good Indians killed."

The constant raids of the renegade Apaches under the lead of Geronimo and Natchez in 1882-5 did much to retard the development of the Territory. Immigrants whose lives were likely to pay the penalty of their settlement in Arizona sought other western parts less dangerous to property as well as lives. The final capture of the renegades under a vigorous policy of the War Department, and the transportation of the Chiricahua and Warm Spring Indians to another region, had the effect of reviving immigration and consequent prosperity in all parts of the Territory.

It is but just to give Gen. Crook's side of the story of the Indian troubles. When he again took command of this department in 1882, he found that the Chiricahuas, who had been assigned a reservation in the southeastern part of the Territory, and the Warm Spring Apaches, who had been placed at Ojo Caliente (Warm Spring) in New Mexico, had taken the warpath and were a constant menace to the white settlers. They took refuge in the Sierra Madre mountains, of Mexico, whence they raided the surrounding country. The raid of Chatto in 1883 gave Gen. Crook the opportunity, without violating treaty stipulations, of crossing the national border and attacking them in their strongholds in Mexico. Gen. Crook, in 1886, said:

"This expedition resulted in the surrender of the renegades—not only those who had at any time lived on the reservation, but also those who, when their bands had been moved from the Warm Springs and Chiricahua reservations to the White Mountain Reserve, had escaped to the Sierra Madre. In compliance with the surrender then made, over 600 souls, 120 being men and boys capable of bearing arms, were brought to the reservation, their status being nominally that of prisoners of war. At this time the Chiricahuas were the wildest and fiercest Indians on

the continent; savage and brutal by instinct, they hesitated no more at taking human life, when excited by passion, than in killing a rabbit. For more than two centuries they had been a thorn in the flesh of the Spaniards, and although during this time, almost constant warfare had been carried on, all efforts to conquer these tigers of the human race by force of arms, had been fruitless.

"For centuries the Apaches had been subjected to hardships and privations which began with their birth and ended only with their lives. The mountain country in which they lived furnished all that was necessary for their existence. The advance of a people to even the simplest form of civilization is marked by the creation of artificial necessities. The Apache was independent of these, and his contact with the whites led him to adopt only their weapons. They resented anything like an attempt to regulate their conduct, or in any way to interfere with their mode of life.

"The problem presented was to bring under control, reduce to subordination, and civilize, so far as was possible, these Indians, to whose restive natures, restraint of any kind was unknown. In accepting their surrender, I was deeply sensible of the responsibility which I assumed, but I believed then, and believe now, that in no other way could I hope to put an end to the constant raids to which Arizona and New Mexico had, for generations, been subjected by these Indians. Their regeneration could be a work only of time and of the most patient watchfulness and care.

"They were placed under the charge of officers in whose ability and discretion I reposed great confidence. Confidential Indians were employed as secret service scouts, and kept constantly in the camps of the savages, to observe their every movement, to listen to their conversation and report their demeanor. Indians of their own tribe were selected, preferably the most influential and energetic of their number, who were enlisted and paid as scouts, and every effort was made to gain their confidence and secure their co-operation. By this means, the several bands were disintegrated, divisions created among them and, by degrees, a following obtained that was interested in repressing disorder. This step gained, it became possible to go farther, and, by exercising the greatest discretion, to punish offenders. Whenever it was practicable, this was

caused to be done by the Indians themselves, and in this way several of the prominent young "bucks" were arrested while fomenting discontent, tried by Indian juries, by them sentenced, and severely punished. Disorders repressed in this way not only accustomed them to a certain degree of self-government, but were most invaluable in cultivating a spirit of subordination among them. By these and other methods, these wild and reckless spirits were brought under control, and were gradually set at work farming, in which the labor was performed not only by the women, but also by the men. This, too, was accomplished without violent shock to their prejudices, and without exciting their suspicions.

"It is impossible to estimate the discouraging effect of the obstacles against which it was necessary to contend in following out these methods to a finally successful issue; the unfriendly criticism of the Territorial press, the more or less open and always covert opposition of the Indian Department, up to the time of the outbreak in 1885; the undisguised hostility of the numerous rings of contractors and speculators, whose success depended upon their ability to defraud the Indians; all these adverse elements had to be overcome, and against such odds, success would have been impossible, except for the zealous cooperation of such men as Capt. Crawford, Lieut. Gatewood, Lieut. Britton Davis, and others associated with them in the management of Indian affairs on the White Mountain Reservation. These officers constantly carried their lives in their hands; the service in which they were engaged was one of the greatest possible delicacy and danger, where the slightest indiscretion would have proved fatal to them. But it seemed, in my judgment, the only way in which the Indians could be reached and taught that subordination to authority, which is an essential requisite to any degree of advancement, however slight, toward a state of civilization. For this reason I allowed officers, the value of whose lives was inestimable, to engage in the most dangerous duty that ever falls to the lot of soldiers to perform.

"The method indicated above, had been applied with success to the management of the other Apaches who, it should be remembered, were, in 1871, in all respects as brutally savage as these Chiricahuas were in 1883, and there was every

reason to believe that the same means which had proved so effective with the former, would produce equally good results with the latter, and they did, in fact. For the first time in their history, they were placed under restraint and taught subordination, while at the same time they made rapid progress toward self-government, and complete self-support. For more than two years Arizona and New Mexico enjoyed a respite from Indian troubles, during which period not an outrage or depredation of any kind was committed in the United States by an Apache Indian. This was the first time, within the memory of man, that there were no Apache Indians on the war-path. During this period the question of the management of the Chiricahuas was practically settled. I had gained their confidence to such an extent that I am firmly convinced that had I known of the occurrences reported in Lieut. Davis' telegram of May 15, 1885, which I did not see until months afterward, the outbreak of Mangus and Geronimo, a few days later, would not have occurred. As it was, though nearly all the prominent chiefs except Chatto were among the renegades, less than one-third of the fighting strength left the reservation. Over eighty men and three hundred and fifty women and children still remained on their farms. Although the hard and conscientious work expended upon these Chiricahuas did not prevent a portion of them leaving the reservation, it enabled me to select with certainty of faithful service, fifty of those remaining, for enlistment as scouts. I should have enlisted more, except for the reason that I wished the rest to remain, to protect the women and children from hostile raids. These Indians were selected as scouts, in preference to those belonging to other bands of the Apaches, for the reasons that they were thoroughly familiar with the country in which they would be required to operate; they were superior as soldiers to any other Indians, and fully up to the standard of the renegades."

In March, 1886, after having held a meeting with the hostile Apaches twenty miles southeast of San Bernardino, Mexico, Gen. Crook reported as follows:

"That evening spies managed to get among them, and in this way their feelings both toward each other, and toward their pursuers, were ascertained. On information gained in this way

it was possible to shape a policy. Though it is believed that the hostiles had implicit confidence in me, I preferred to work on individuals, and selected Chihuahua and Natchez, who were the most influential leaders of the renegades, and concentrated my efforts upon them. From the scouts were selected trustworthy Indians of their own tribe, who were carefully instructed, and sent to talk with these chiefs, who finally agreed to surrender, on terms the most favorable I could hope to exact. This at once divided the hostiles into two parties, and broke up the band. The fact that this had been effected through the personal efforts of their own people, had an effect not only of a peculiarly demoralizing nature upon the hostiles, but also upon all others of the tribe, and rendered their subsequent management anywhere, an easy matter. Before this, merely to have hinted at the possibility of their removal from their old haunts would simply have stampeded the whole tribe to the mountains. These results may be traced directly to the work that had been done among these Indians during the two years they had been on the reservation, and were followed on the next day by the surrender of the whole body of hostiles, which fact was communicated to the Lieutenant-General as follows:

"In a conference with Geronimo and other Chiricahuas, I told them that they must decide at once upon unconditional surrender or fight it out. That in the latter event hostilities should be commenced at once and the last one of them killed if it took fifty years. I told them to reflect on what they were to do before giving me their answer. The only propositions they would entertain were these three: (1) That they should be sent east for not exceeding two years, taking with them such of their families as so desired, leaving at Apache, Nana, who is seventy years old and superannuated; or, (2) that they should all return to the reservation on their old status; or (3) else return to the warpath with its attendant horrors. As I had to act at once, I have today accepted their surrender upon the first proposition.

"Ka-e-te-na, the young chief, who less than two years ago was the worst Chiricahua of the whole lot, is now perfectly subdued. He is thoroughly reconstructed, has rendered me valuable assistance, and will be of great service in helping to

control these Indians in the future. His stay at Alcatraz has worked a complete reformation in his character. I have not a doubt that similar treatment will produce the same results with the whole band, and by the end of that time, the excitement will have died away. Mangus, with thirteen Chiricahuas, three of whom are bucks, is not with the other Chiricahuas. He separated from them in August last and has since held no communication with them. He has committed no depredations. As it would be likely to take at least a year to find him in the immense ranges of mountains to the south, I think it inadvisable to attempt any search at this time, especially as he will undoubtedly give himself up as soon as he hears what the others have done."

In April, 1886, Gen. Crook was relieved of his command of this department at his request, and was succeeded by Gen. Nelson A. Miles, who continued to pursue the remnants of the Apaches until the final surrender of Geronimo and his small band in September, 1886. Since that date, with a few slight exceptions, the Indians of Arizona have remained in subjection, and the progress of the Territory in material wealth has been phenomenal.

*Not a single white has been killed during the year by Indians. The capture and the removal of Geronimo and his Apache tribe by Gen. Nelson A. Miles several years ago settled the Indian wars of Arizona by the separation of the criminal element from those who were peaceably disposed. The war spirit of the Indian has been crushed and his savage nature subdued. He now respects force, fears to violate the law, and is in a condition of almost absolute dependence. The Government and the people of Arizona have the Indians on their hands, not as savages, but as a conquered, dejected and dependent race. What shall be done with them is the all-important question to both the Government and the people of the Territory.

The problem now to be solved is, What shall we do with the tens of thousands of Indians who once inhabited this Territory unmolested, but have been subdued and located on reservations, almost wholly dependent upon the Government? Many of them have been in a state of semi-civilization for years. These receive but little assistance from the Government, but their freedom

*Report of Gov. L. C. Hughes, 1895.

to follow the chase is circumscribed by the limits of their reservations. While some of the boys and girls are being cared for in training schools located on and off the reservations, and much good is being accomplished in this line, many of the adults are becoming an expensive and threatening charge. Complaints are being made by settlers of both Southern and Northern Arizona charging the Papagos of the south and Navajos of the north with stealing and killing large numbers of stock. In many instances these Indians seem to be driven into a state of vagabondage and thievery, having nothing to do but starve in idleness or steal for subsistence. To a casual observer it would seem the Indian has been converted from a savage into a vagabond or a thief.

An investigation recently made concerning the losses sustained by stockmen ranging their cattle in Pima County (a report of which was forwarded to the Indian Bureau) shows that during the last four years the Papago Indians have stolen and slaughtered stock from three citizens alone of the total value of \$68,323. The Indians became so bold in the stealing of cattle that the stockmen were compelled to vacate their ranges, at an additional loss of over \$41,000 expended in developing and storing water.

The stockmen of Northeastern Arizona have also suffered much loss from the Navajo Indians, several thousand of whom are constantly off their reservation, roaming through the counties of Coconino, Apache and Navajo, stealing, killing, or driving away stock, often destroying crops and damaging irrigating canals, causing much loss to the citizens of that section of the Territory. Again, these Indians drive their herds from their reservation into the ranges of the stockmen of the Territory, causing no little friction. C. H. Fanchier, general land agent for the Atlantic and Pacific Railroad, which has a large grant of land in that section of Arizona, says:

"The Navajo Indians are not confined to their reservation, but are allowed to roam and graze their stock for miles south of the reservation. This fact prevents the company, to a great extent, from settling lands anywhere within 40 or 50 miles of the reservation. The Indians not only drive their own sheep and cattle on the public and railroad lands, but they kill the stock

belonging to the settlers and drive them out. They should be compelled to remain on their reservation with their stock, and if the reservation is not large enough it should be increased in size. For the purpose of adjusting this matter the company would be willing to release to the Government lands belonging to it in the immediate vicinity of the reservation, taking other lands, on even sections, and at equal distances from the railroad, at some other point along the line. As long as these Indians are allowed to continue off the reservation anywhere from forty to fifty miles there is bound to be more or less trouble between them and the stockmen, and I believe there is nothing else that does as much injury or causes so much trouble between stockmen and the Indians. In talking with Gen. C. H. Howard, of Chicago, a short time ago, in regard to the development of an irrigation scheme in the vicinity of Winslow, he stated one of the greatest objections they would have to overcome in the settlement of that section of country was the prejudice and fear that Eastern people had of the Indians, and he stated that their fears were grounded on the reports which they read in regard to the troubles existing between the Indians and stockmen."

I also call attention to the memorials adopted by the last legislative assembly of Arizona touching the depredations of both the Papago and Navajo Indians, above referred to, praying the Government to adopt measures to compel them to remain on their reservations and to prohibit the Navajos from pasturing their stock outside of their reservation boundaries, and to protect citizens from the wholesale stealing and slaughtering of their stock by these Indians.

The large area of land set apart as reservations for those respective Indian tribes is in every way adequate to their necessities, furnishing ample grazing and lands capable of reclamation to agriculture, provided water for irrigating the same can be had. The Indians are not only willing, but anxious, to secure farm lands, from which they can support themselves. They would rather work than steal. The conditions which drive them from their reservations are not of choice, but of necessity, to allay hunger. The following from the Florence (Ariz.) Tribune of recent date emphasizes this fact:

"Wee-paps and three other Pima Indians were

tried in the district court this week, pleaded guilty of grand larceny, and were sentenced to one year each in the penitentiary. It seems they had stolen some ponies and traded them for food. Wee-paps made a pathetic speech to the court, which was translated by an interpreter. He said in effect:

“For hundreds of years my people have lived on the banks of the Gila River. We have always been honest and peaceful, and have supported ourselves and never asked for any help from the Great Father at Washington. We have raised our own wheat and corn, and ground it in our own metates. Until the past few years we have always had plenty of water to irrigate our farms, and never knew what want was. We always had grain stored up for a full year's supply. We were happy and contented. Since the white men came and built the big canals and acequias we have no water for our crops. The Government refuses to give us food and we do not ask for it; we only ask for water, for we prefer to earn our own living if we can. I am no thief, and I will not beg, but my wife and children were hungry, and I must either steal or they must starve. So I took the horses and traded them for grain, and the hunger of my family was satisfied. You can do with me what you will. I have spoken.”

This is the whole story, and in a measure will apply to the Maricopas and Papagos. These tribes have a total area of land—included in four reservations—of 488,920 acres, much of which is the most desirable farming land in the Territory. The same can be said of the White Mountain Apache Indians and their reservations.

The Indians of Arizona have learned the first step in their civilization, that of stock raising; the second, the tilling of the soil, many have already learned, and others are anxious to learn. There is no civilization without labor, and agriculture is the natural and most practical means of providing them the resource for labor and subsistence. The solution of the difficulty can be reached in providing the Indians with water to irrigate and cultivate their lands, which should be allotted to them in severalty. This done, the Indian will be on the shortest road to independence and to become an industrious and tax-paying citizen of the Territory.

The Indian, given his land in severalty, will

soon become a respecter of the law which protects him in his rights; in the cultivation of the soil he will learn the value of time and labor, and the comforts they will bring. Thus far advanced, his future is settled, and it is but a short step into the ranks of civilized society and the enjoyment of all its privileges.

Water for irrigating his farm is the important consideration. Take as an example the Pima and Maricopa reservations, which contain much more than sufficient lands capable of reclamation to agriculture for all the Pima, Maricopa and Papago Indians. Upon careful examination by experienced engineers, it has been determined that for \$2,000,000 the flood waters of the Gila River can be impounded by the construction of a dam at what is known as the Buttes, sufficient to reclaim 500,000 acres of land. This reservoir could supply all of the land required by these Indians for all time to come. There are more than 500,000 acres of the choicest land in Southern Arizona which could be served from this reservoir, which, without water, is practically valueless. When brought under cultivation the value will range from \$25 to \$100 per acre.

I have no hesitation in suggesting that if the Government will give a bonus of 100,000 acres, more or less, of desert lands, which can be served with water from the proposed reservoir, private capital can be secured for the construction of the same, which will furnish abundance of water to reclaim and cultivate all the land required by or for these Indians at a very small yearly water rental, the number of acres secured for the Indians to be in a given ratio to the number of acres given by the Government as a bonus to the owners of the reservoir. This plan will cost the Government practically nothing, as the lands are now valueless.

All of the Papago, Maricopa and Pima Indians could be supplied with farm homes, and thus given the opportunity of supporting themselves. There would be no more stealing of stock by Indians to enable them to furnish food for their starving families; and, in addition to this, there would be a large area of land outside of the reservation brought under cultivation through the construction of this reservoir, which, in addition to furnishing homes to hundreds of farmers and increasing the tax resources, would return a large sum to the Government by their sale.



William Herring

The same policy suggested for aiding these Indians can be applied to other tribes of the Territory, reclaiming lands, and furnishing them with the means to sustain themselves. Give the Indians the means of self-support, added to the system of industrial training of their boys and girls now provided by our Indian schools, and in less than twenty-five years every Indian in the Territory should be self-sustaining and many of them tax-paying citizens.

The only complaint made is lack of school accommodations. We must have more and larger industrial training schools. There are not less than 4,500 Indian boys and girls who are available for schools, and accommodations for less than 1,500. The good results of these institutions make the demand more urgent. As an illustration, the Presbyterian Mission School at Tucson and the Government school at Phoenix are furnishing the best farm and domestic help in the Territory. During school vacation the pupils seek employment on the farms and in families, and as a rule they are rigidly honest and industrious. During last summer's vacation the Indian boys of the Tucson school furnished all the labor for the grading of the streets of Tucson, each receiving \$1 per day. These boys also furnished the fuel consumed at Tucson. The boys of the Phoenix school contributed their time in the harvest field of the valley.

In this connection I feel it my duty to repeat from my last report on this subject:

The policy of furnishing Indians with stock and allotting to them lands in severalty upon which they can establish homes and become individually interested in the cultivation and improvement of the same, is the most practical suggested.

I desire to call particular attention to the importance of encouraging the breaking up of tribal relations, by aiding the younger Indians to take up lands in severalty under the allotment policy.

There are now more than 1,500 Arizona Indian boys and girls in schools under industrial training, many of whom have already a practical knowledge of modern farming. To allow them to return to the reservation after graduating in these schools, to fall into the lazy, worthless habits of the old Indians, is all wrong, for they soon lapse into the prevailing habits of their former associates, and the work of the school is lost.

These young Indians should not be returned to the reservation, but should be set up in business for themselves, so as to become self-supporting and industrial and tax-paying factors of the Territory.

To carry out this suggestion I would call attention to the fact that the Salt River Indian Reservation, which contains an area of 41,000 acres, is located about 25 miles from the Gila Reservation. Abundance of water can be had for irrigating practically all of the lands. The Gila Bend Reservation, located about sixty miles west of the Gila River Reservation, contains 23,000 acres. There can also be had abundance of water for these lands, of which there are not twenty acres under cultivation.

I would recommend that the lands of these two reservations be set apart for allotment to the young Indians who have been instructed in farming in our Indian industrial schools, who, instead of being returned from school to their old reservations, be given 10 to 20 acres of land thus allotted to them, which would at once put it in their power to become self-sustaining.

The lands of the Gila Bend Reservation are to-day practically valueless, and all save a few acres of the Salt River Reservation is idle. Many of the Indian boys want land to engage in farming for themselves.

This plan is plain, practicable, and easy to accomplish.

I recommend that measures be taken to compel the Navajo Indians to remain on and keep their stock within the bounds of their reservation, and, if they have not sufficient grazing lands, that the reservation be enlarged and the boundaries be plainly designated; that the Government encourage the construction of the Butte Reservoir by giving a bonus of lands, to the end that the Pima, Maricopa, and Papago Indians can be furnished with ample water for irrigating sufficient lands to sustain themselves, and in addition to aid in the reclamation of arid lands outside of the boundaries of the reservations—there are precedents for this recommendation, as millions of acres have been granted to aid commerce, and this would be given to aid and encourage agriculture; that the Salt River and the Gila Bend reservations be set apart for allotment at once to Indian graduates of industrial schools; that the school accommodations for industrial train-

ing of Indian boys and girls be greatly enlarged; that, with a view to prompt and efficient prosecution of Indian offenders, in the interest of justice and economy to the Government, and the relief of the Territory, the jurisdiction of the trial of Indians be transferred from the Territorial to the United States district courts; that the San Carlos coal fields be segregated from the White Mountain Indian Reservation, and that settlement of title to lands in the vicinity of Tuba City be made, in the interest of harmony between settlers and the Navajo Indians.

The Mission Camp murderers prefaced their bloody deed by opening the door and in the usual way asking for horse feed and its price, closing the door and returning in a few moments with a Spencer carbine. Mr. and Mrs. Reidt were sitting by the stove discussing what they should have next day for Christmas dinner. James Lytle was standing by, all happy, apprehending no danger and anticipating their Christmas festivities, when the door again opened and instantly a ball from the Spencer pierced Mr. Reidt's heart. Next Lytle fell, and then Oliver. Mrs. Reidt was knocked down, but the entreaties of a Mexican herder spared her life. She was dragged about by the hair, and violently thrown upon the dead body of her husband. The murderers then sacked the house of \$250 in money, flour, coffee, sugar, tea, etc., and with five fine stage animals, departed. With much persuasion Mrs. Reidt was induced to go to Arizona City by stage, where she is well cared for, and will soon recover.

The body of her husband was taken down there and buried Tuesday, and James Lytle and Thomas Oliver's remains were interred at the camp by a party who went up for that purpose on Sunday. The young son of Mr. Kilbride, who happened at Mission Camp at the time of the murders, was spared, as the murderers said, because he had Mexican blood in his veins; and Mrs. Reidt was denounced as a "damned gringo bitch," and other worse epithets having reference to her race. It is the boast of many Mexicans that they will yet clean the river of whites from one end to the other.

About five hundred Indians celebrated the holidays at Camp Goodwin by scalp dances. The wretches were yet bloody from the war, and there is little doubt that they embrace the devils who attacked Tully, Ochoa & De Long's train and killed a man of it some weeks ago.

When farmers come in and seriously request that if they should get killed by Indians their papers be sent to some child or friend in the States or friends abroad, one can realize the peril which surrounds this people, and why grain sells high, and several other whys. For the first time in six years, there is not a woman or child in the San Pedro farming settlements, and at the rate the men are being killed it will not be much longer until not a man will be left.

Smith & Megery, of the Bosque ranch on the Santa Cruz, have brought fine specimens of their cabbage to market. Some of the heads weighed twenty-five pounds each.



CHAPTER V.

THE CATHOLIC MISSIONS AND MISSIONARIES—OBJECTS OF THE CHURCH—EFFORTS OF THE FIRST PRIESTS—THEIR HARDIHOOD AND PERIL—STORIES OF RICHES AND ADVENTURE—HOSTILITY OF THE INDIANS—MANY PRIESTS BUTCHERED—FATHER KINO—ESTABLISHMENT OF THE PIMA COUNTY MISSION—OLD ADOBE CHURCHES—AGE OF THE PRESENT BUILDINGS—JESUITS AND FRANCISCANS—OBSCURITY OF EARLY MISSION AFFAIRS—FLOURISHING MISSIONS OF 1710-20—LATER CONDITION—TRUE AND FALSE.

From the beginning of the entrance of white people into Mexico and what is now the western part of the United States, it had been the purpose of the Roman Catholic Church to convert the natives to Christianity and make all the tribes of Indians followers of the cross. All the early expeditions into what is now Arizona, military or otherwise, were accompanied by priests of the societies of Jesus or St. Francis who, in a spiritual way, were permitted by the military authorities to preside over the movements of the expeditions. After the military explorations in search of treasure had been abandoned, the Catholic societies began to devise plans to subject the whole Indian country to the spiritual laws of their church. It was a task of immense magnitude, embracing a vast scope of country and involving innumerable trials and dangers among the savages. After many years of labor and entreaty permission was secured to commence the work of saving souls.

It is difficult for us of the nineteenth century to appreciate the grand conception, to realize the magnitude of the task undertaken by this church. With a heart that loved humanity because it had a soul, with a charity that forgave all things except a death in sin, infolding with affection all the images of the Creator, with a tongue that made the hearer listen for the voices of angels, with a faith in success like one of the chosen twelve, the church became an enthusiast, and was to Arizona what John the Baptist was to Christianity, the

forerunner of a change to come. And the end is not yet—it will never be, for eternity will swallow it up.

Spain had spent vast treasures in a century and a half of unsuccessful effort to survey and occupy the upper Pacific Coast. The first colony, established in 1536, by Cortez, had cost \$400,000; the last, by Otondo, in 1683, \$225,400, to which add all the expensive efforts that occurred between those dates, and the total foots among the millions. So vast an outlay, followed by no favorable result, rendered the subject one of annoyance to Church and State and almost clothed with contempt any that were visionary enough to advocate a further prosecution of such an enterprise, so repeatedly demonstrated to be but a delusion and a snare.

Father de Niza was a native of Italy, and came to America in 1531. He first labored for his church in Peru, but after a fruitless struggle he went to Mexico and was chosen Provincial. In his second expedition from there to Cibolo he suffered such intense hardships that his death succeeded his return to Mexico.

In 1539 De Niza was told by the lying natives a picturesque tale which has since gained more notice than it deserves. They said that to the west of Cibolo was the kingdom of Totontec, which was the greatest and most important in the world, thickly populated, and very rich. Here the people were dressed in woolen cloth like that of the friar, only more beautiful. They were

highly civilized and very different from those already seen. There was also another very large kingdom, called Acus, which the informants begged Marcos not to confound with Ahacus, the city, although the names were somewhat similar. Among other things it was said that the people of this city slept on "beds raised a good height from the ground, with quilts and canopies over them, which cover the said beds." It is true that in this valley the friar counted over a thousand buffalo hides, extremely well prepared, and a constantly increasing amount of turquoise, all of which, however, was said to have come from Cibolo. Here, also, he was shown an enormous hide, half as large again as that of the largest ox, which he was told was that of a great beast having one horn growing from the middle of his forehead which bent down toward his breast, but has a point going straight forward, so strong that it would "break anything, how strong soever it be, if he run against it;" and the natives told him that these animals were very abundant in that country.*

Father John de Padilla was a native of Andalusia, who had previously been a soldier, but who espoused the cause of Christianity, and upon his earnest solicitation was permitted, by Coronado, in 1540, to remain in the Indian village of Cicuyé. Near here he was afterward killed by the Indians with arrows. He had visited the Moquis, and probably the Zunis, Maricopas and Pimas. His death ended his mission.

By the year 1626, according to the memoir of Father Benavides, twenty-seven missions had been established in what he called New Mexico. Several of the missions possessed large and beautiful churches. There was a convent and one or more residences at Zuni, which location was considered a difficult one, where much Spanish blood had been spilt, though at that time several missionaries resided there. This mission had been confided to Father John Letrado, who resided there for some time, but at last he met his death among the Ciplas. For some reason not altogether clear, probably because the Indians adopted a systematic course of persecution, the whole missionary field of New Mexico was almost wholly abandoned by about the year 1660. Two

* One of these informants of De Niza was a refugee from the Indian towns by his own confession, was, no doubt, a rogue, and it is well known that his stories were almost wholly unreliable.

missionaries who returned that year founded two missions in what is now New Mexico, but after two years they were stripped naked and driven away, but succeeded in surviving, and after a time returned and successfully founded missions at ten or twelve towns, one of which was at Zuni. In 1680 all the Indians revolted and a scene of desolation resulted. Many missionaries were killed and their buildings pillaged and destroyed. Missionaries who had ventured among the Moquis and Navajos were likewise killed, and for a period savagery again ruled.

In a few years, however, peace was again restored, the missions, many of them, were re-established and the priests again appeared, never again to be driven out of the country.

In 1687* Father Eusebino Francisco Kino, a Jesuit (who was a German by birth, named Kuhn), and others established several missions in Sonora, whence they had come from the State of Sinaloa, where they had resided and labored since 1590. They reached Sonora (probably Culiacan) on the 13th of March, 1687. By 1690 they had established four missions in Sonora, which were visited by Father Juan Maria Salvatierras, visitor-general of Mexico. In this year many Indians from the Santa Cruz Valley saw the good fathers and urged them to go north and establish missions on that stream. Accordingly, the missionaries went to the north with the Indians and founded the first permanent mission in Arizona at Guevavi. Very soon afterward missions were established at San Xavier and Tumacacori.

It cannot, therefore, be said with certainty that any missions were established in Arizona prior to 1690. On the other hand, there may have been missions located there many years before. It is known that missionaries visited the Gila and Santa Cruz valleys in the sixteenth century and the early part of the seventeenth century, but if so, their work, at best, was of a temporary character. The fact that many prominent Indians, in 1690, urged Father Kino to go to the Santa Cruz Valley and found missions might mean three things: 1. That they had enjoyed the benefits of the missionaries' services before and wanted them renewed, or (2) that they had seen the benefits conferred on the inhabitants of Sonora by the missions and wanted the same themselves, or (3) they may have had previous mis-

* Noticias Estadísticas of Sonora.

sions before in the Santa Cruz Valley and had also seen the good done by those in Sonora.

As for San Xavier there has not been seen any record of its first start as a mission. What is known is that, in 1692, the missionaries were visiting the different tribes of the western part of the country, and that in 1694 they established two missions on the Gila River. But from these facts it can be inferred that the San Xavier mission was already existing, especially when it is known, as stated before, that it was the strong wish of the Papago Indians to have missions established in their villages. Moreover, the location which the actually existing church occupies and the rich and extensive valley by which it is surrounded must have attracted at once the attention of the missionaries. It can, then, safely be supposed that this mission was established soon after that of Guevavi, if not at the same time. Nevertheless, San Xavier had no resident priest for several years after its establishment, and was only attended from Guevavi. The first church built at San Xavier, as has been told by an old Indian, and as can be easily supposed, was a small and modest adobe building, the most easily erected to meet the wants of the new mission. The fragments of records found in the church give an idea of the population that lived in the vicinity, by the number of baptisms which were yearly administered from 1720 to 1767. This population must have been considerable. It is found in the same books that twenty-two Jesuit missionaries successively administered at San Xavier between the dates mentioned, the last of which was that of their expulsion by the Spanish government. The missions they had established during their stay in the province of Sonora were twenty-nine in number, consisting of seventy-three Indian pueblos, as is stated in the *Rudo Ensayo*, a geographical description of Sonora, written in 1762 by one of the Jesuit Fathers. According to the opinion of the author of the *Noticias Estadísticas*, already mentioned, the Mission of San Xavier was one of the most flourishing in Sonora under the care of the Jesuits, and the loss of these missionaries could not but affect it very seriously, as well as all the others.

San Xavier del Bac Mission is to-day one of the famous landmarks left by the old Spanish fathers, and is well worth a journey of many miles to see. The old chapel was destroyed by the

Apaches in 1751, the padres and most of the converts massacred, and for a time the mission was abandoned, but later the work was taken up again and about 1783 the present edifice was begun. It was never entirely completed, but so nearly finished that it forms a most imposing monument to the skill and patience of the mission fathers. For some years it has been greatly neglected, but recently efforts have been put forth by the Catholics of the Territory to restore it to its original beauty of three-quarters of a century ago.

One of the oldest missions established by the Jesuit Fathers was that of St. Gertrude de Tabac, in the Santa Cruz Valley, forty-five miles south of Tucson, the latter part of the sixteenth century. A writer in "*Rudo Ensayo*," in 1762, says that the Indians on the San Pedro River state that the missions were built previous to 1694. Solorano, a Spanish writer during the reign of Philip III., also mentions these old missions, and gives much information respecting the country, the old prehistoric ruins, etc. In the "*Cronica Cerifica*" of about the same date, a long account is given of the early explorations, the old missions, and of the Indians then in that region, who were estimated at 75,000.

In 1696 an effort was made to establish a mission at Casa Grande, but hostility of the Indians prevented. Little could be done by the good fathers on the Gila. Constant efforts were made to establish missions not only on the Gila but on the Colorado as well, but the Apache tribes would not permit it.

Between the years 1690 and 1706 Father Kino made no less than five visits to the Santa Cruz Valley and the Gila River for the purpose of establishing missions. In this he was sustained by the Catholics of Mexico, particularly by the Society of Jesus, of which he was a member. He was accompanied by other fathers of less prominence and strenuous efforts were made to gain a permanent footing among the more civilized tribes of the Gila. Very little could be done with the nomadic tribes, but with those possessing fixed habits and what may be considered realty—farms, houses, canals, etc.—the missionaries found that much more satisfactory headway could be made. Scores of years before this the church had secured a permanent foothold throughout the populous valleys of Mexico—in fact, so much so that, in a large degree, it dominated affairs of

society and state as well as of church. The Spanish Inquisition had made its power felt throughout Christendom and had been introduced into Mexico with the result of giving to the Church wide dominion and a strength which no individual nor organization dared resist. Always wise in its efforts to gain proselytes, the Catholic Church in Mexico, or New Spain, regardless of the trials and dangers of attempts to found missions among the Indians, made repeated efforts in the Gila and Colorado valleys and were finally successful.

In 1710 there were eight missions in a flourishing condition within the Territory of Arizona. These were named, respectively, Guevavi, San Xavier del Bac, St. Joseph de Tumacacori, St. Gertrude de Tabac, San Miguel de Sonoita, Calabasas, Arivaca and Santa Ana. The parishioners were mostly Indians, though the priests and a few Mexicans lived among them. They possessed herds of cattle, sheep and horses; cultivated a large area of land, which yielded cereals, fruits and vegetables. Many rich silver mines near the missions were worked extensively, and, with the rude reduction facilities at hand, produced large quantities of the precious metals. From 1710 to 1720 was the most prosperous era in the history of the Arizona missions.

In 1720 the missions were prosperous and flourishing, and in Sonora, including what is now Arizona, there were twenty-nine missions and seventy-three Christian Indian pueblos, or villages, in charge of the Jesuit fathers. In what is now Arizona there were known to have been the missions of San Xavier del Bac, St. Gertrude de Tabac, St. Joseph de Tumacacori, San Miguel de Sonoita, Guavavi, Calabasas, Arivaca and Santa Ana. In 1721 the Indians rose in rebellion, killed a number of the priests and destroyed many of the missions. From this blow they never entirely recovered. In 1742 Father John Menchero visited the Moquis and Navajos and succeeded in gaining a substantial footing in that reputed difficult ground. He succeeded far beyond the efforts of all former missionaries.

In 1743 Father Ignacio Keller was commissioned to proceed to the Moqui villages and make an attempt to win the inhabitants to the Christian faith. He was thoroughly qualified for the enterprise, having passed several years among the Indians of the Gila. In September he set out, ac-

companied by several Pimas, as guides. He passed the Gila and the Salt rivers and journeyed north into a mountainous country, where he encountered hostile Apaches, who attacked and compelled him to retrace his steps.

In October, 1744, Father Jacob Sedelmeyer made an attempt to reach the Moquis. He went no further than the Gila, being dissuaded from the expedition by the Pimas, who assured him that the mountains to the north were infested with fierce Apaches, who would certainly massacre his whole party. So the father had to give up his project and resign the Moquis to their sunworshipping idolatry. He explored portions of the Rio Salado and the Verde, and ascended the Gila some distance, but was driven back by the Apaches. He then descended the stream to the Colorado.

During the year 1751 there was an outbreak of the Pima and other Indians, who destroyed some of these mission churches, and killed many of the priests in charge. In 1769 the Marquis de Croix, viceroy of Mexico, sent to the Superior of Santa Cruz in Europe, and had fourteen priests sent out to the New World to fill the places of those killed by the Indians in this outbreak.

Great was the joy of the simple Papagos at having the "black gowns" once more among them. The gold and silver vessels of the altar and all the other valuable ornaments were brought forth from the secure hiding places where they had remained undisturbed all these long years; nave, chancel and altar were gaily decorated; lights flashed from every column, and the voices of the happy Papagos filled the dim aisles and lofty arches of the old church with songs of joy and gladness. Since then religious services are held regularly in all the churches.

The mission church of St. Augustine, in Tucson, was founded in 1769, but the old church building has long been in ruins. From about 1720 to the present time there have been sent to Arizona nearly fifty priests of the Jesuit and Franciscan orders, and of these more than one-half have been either murdered by the Indians or permitted to die of privation.

In 1767 all the Jesuits in New Spain and elsewhere were ordered under arrest by Charles III. upon the charge of conspiring against the State and the life of the King. In accordance with this command all the Jesuits in Arizona left in February, 1768, and the same year the Franciscan fath-

ers began to arrive at the missions of Pimiera Alta, as Arizona was then called. With the disappearance of the Jesuits the Indians had rapidly relapsed into savagery and the Franciscans had no light task to bring them back from their raids upon the white settlements of Sonora.

In January, 1774, Captain Juan Bautista Ainsa, in pursuance of orders from the viceroy of Mexico, undertook to establish communication by land between Sonora and Alta California. He was accompanied by Fathers Garcez, Pedro and Elrach, who visited the Maricopas, Yumas and other river tribes, and for nearly two years labored persistently among them. Father Garcez visited the Mohaves and Yavapais and explored a large portion of Central Arizona, everywhere preaching the doctrines of Christianity among the wondering savages.

In 1776 Captain Ainsa returned from California, bringing with him from the Colorado, Palma and other chiefs of the Yuma tribe, praying for the establishment of missions among them. In compliance with their request Father Garcez was selected as the man best fitted for the task, and in 1778 three missions were erected on the banks of the Colorado—two on the western and one on the eastern side. One was on the hill opposite the junction of the Gila, where Fort Yuma now stands, and was known as La Conception; another was established near Chimney Peak, and was called San Pablo, and the last was opposite the Castle Dome Mountain, and named San Pedro. A presidio was established on the hill of La Conception, and a small garrison, for the protection of the missions, maintained therein under the command of Don José Maria Ortega. On the seventeenth day of July, 1781, the Yumas rose against the Spanish authorities, massacred the officers and soldiers of the garrison of La Conception and the priests and civilian employés of all the missions. The women and children were made captives, the buildings destroyed, and thus, for a time, ended the missions of the Colorado.

From 1773 to 1776 Fathers Pedro Font, Francisco Garcia, Sylvestre Escalante and Francisco Dominguez, of the Order of St. Francis, visited the Casa Grande, the Pima and Maricopa villages, and likewise penetrated to the Moqui towns. In fact, they may be said to have visited all the settled portions of Arizona, but it is not known that any permanent missions were established therein

by them. It is known that the little party, under Escalante, crossed the Colorado above the Grand Cañon and penetrated the interior to the Uintah mountains.

The ruins of St. Joseph's Mission, Tumacacori, are located on the west side of the Santa Cruz River. There is abundant evidence of long-continued cultivation in the vicinity. There may have been an earlier building, probably was, but so far as known the first church building was constructed in 1752. It was destroyed by the Apaches in 1820. The mission buildings, of which sufficient remains to show their character, were of large extent, and yet cover a considerable area. The church itself is partially unroofed, the chancel, with its dome, still remaining in fair preservation, while the nave is open to the sky and the weather. It is a rather plain structure, built of brick and concrete, or *cojin* as the Mexicans term it. Apparently it was both smaller and ruder than the church of San Xavier del Bac. The main structure is about one hundred feet long by forty or fifty wide. The form was that of a plain Greek cross with a basilica. The cross, emblem of the devout hope and sacrificial service which animated the Jesuit Padres, still crowns the latter, and outlines against the marvelous skies and under the shadow of the gray, sear hills, the symbolized passion and power of Christian zeal and endeavor. Two towers remain in fair preservation. On the west side an unroofed chapel remains otherwise almost intact, while on the other the sacristy is quite dilapidated. It has evidently been used both as a stable and granary and the interior of the nave shows the vandal hand of prospectors and travelers.

Sylvestre Escalante and his companions, together with a guard of Indians, entered what is now Arizona, west of the Colorado and north of the Grand Cañon, about 1776, and, taking a zig-zag course eastward, finally crossed the Colorado below Lee's Ferry, thence they moved south and east to the Moqui towns. He thence continued on eastward into New Mexico. Escalante appears to have been the last of that pious and zealous band who followed in the footsteps of Marco de Niza, and carried the cross among the savage tribes of Arizona for nearly 250 years.

Concerning the exact date of the foundation of the San Xavier del Bac Mission, there is no exact data, but it is to be presumed that the mis-

sionaries, after settling permanently in the territory a little before 1690, were not long to discover the advantages which the San Xavier locality offered to them as an important central point for their evangelical labors. The first church erected in San Xavier del Bac was an unpretentious adobe building, although we gather from the baptismal records that the population, living in the vicinity of the church, must have been at the time considerable.

In 1751 there broke out a fierce rebellion among the Pima and Ceris Indians, in the course of which several missionaries were killed, while the others had to flee, and many missions went to total ruin, till the year 1754, at which time the Indians, tired of their work of depredation and carnage, returned to their pueblos to live again peaceably.

In 1767 the Jesuit missionaries, who, from about 1690, had zealously ministered to the spiritual and even the temporal wants of their dearly beloved wards, were compelled to withdraw from the Spanish dominions and their places were filled in the Arizona missions by Franciscan fathers who came from the city of Queretaro, in Old Mexico.

The construction of the present church in San Xavier del Bac—that little gem of the western slope of the Rocky mountains—was initiated and conducted by the new missionaries from 1783, the date of its inception, to 1797, the date of its completion, under the administration, successively, of Fathers Baltazar Carrillo and Narciso Gutierrez. The penuria of material means and the failure of the Spanish government to furnish the good fathers with the oft-proffered assistance caused this long delay in the completion of the new San Xavier church, as well as a marked lull in the opening of new missions. It is situated about ten miles south of Tucson, near the Papago villages in the Santa Cruz Valley. Its dimensions are 115x70 feet. Its style is combined Moorish or Byzantine, with original and Roman finishings, upon a basis of embattlements. The fresco designs are especially rich. The writer has no record on hand from which to show the first start of the Indian mission in Tucson, situated on the left bank of the Santa Cruz River, at a place called "the Pueblito," and where an old building that once belonged to the Indian mission is still to be seen well nigh in ruins.

The mission of the San Xavier was prosperous till 1810, when a new state of things began to arise over the Spanish possessions of America. From that date to 1827, the time of the expulsion of the Spaniards from Mexico, the missions, in Arizona especially, had much to suffer from the revolutions and the want of material resources. From 1827 to 1866 the small settlements around Tucson and up the Santa Cruz River were attended, first and mostly, by visiting priests from Sonora at long intervals, either owing to the great distances or to the incessant danger from the Indians, who had then the full control of the country. In 1850 the Rt. Rev. J. B. Lamy was appointed bishop of what is now the territories of New Mexico and Arizona north of the Gila River, with residence at Santa Fe, and in 1859 he had that portion of the Territory, ceded to the United States under the Gadsden treaty of 1854, added to his jurisdiction, but for a long time he was powerless to do more for the spiritual attendance of the mere handful of Catholic Mexicans entombed, so to say, within the Apache kingdom, than send them an occasional visiting priest.

It was only in 1866 that Rt. Rev. J. B. Salpointe, then a simple priest, arrived in Tucson with a brother priest, both commissioned by the bishop of Santa Fe, in New Mexico, to permanently settle in the old pueblo, entrusted with the charge of the whole of Arizona.

The first church building in the Tucson of today must have been erected soon after the establishment of the Spanish presidio, or fort, subsequent to the revolt of the Indians in 1751-54, and was situated, as far as we have been able to ascertain, on what is now the corner of Court and Alameda streets. Like most adobe buildings it crumbled to the ground within a certain lapse of time and was replaced by a smaller one, of the same material, which was put up by the late and venerable Don Solano Leon, on what is now Alameda street, near the corner of Main. As the population of Tucson increased this chapel proved altogether inadequate for the necessities of religious worship and some time in the sixties Rev. Father Donato, who was subsequently murdered by the Apaches, laid the foundations of the present Catholic church on Church Plaza, the completion of which was pursued in 1866 and the following years, by the Rev. J. B. Salpointe.



INSANE ASYLUM.

SAN XAVIER DEL BAC.

CASA GRANDE RUINS.

Some time in 1867 or 1868 the Rev. Patrick Birmingham erected the present Catholic church at Yuma.

In 1868 Father J. B. Salpointe, then vicar general for Arizona, was appointed bishop and vicar apostolic of Arizona, now erected into a separate diocese. The same year he went to Europe to be consecrated and obtain co-laborers, as, at the time of his appointment, he had only two priests in the new vicariate apostolic, which consisted of the Territory of Arizona, the Messilla Valley in Southern New Mexico and El Paso County, in Texas. The zealous bishop sailed back for New York with his band of young clerics in the first part of September, 1869, and they reached Tucson in the beginning of February of 1870, after a long and perilous journey across the wastes of Kansas, Colorado, New Mexico and Arizona. The young priests were soon stationed out and far apart in a country overridden by the murderous Apaches through which they carried their lives in their hands, whenever they had to attend a sick call or to visit remote settlements. It was from that year, 1870, that the work of the Catholic church in Arizona was resumed on a new and systematic plan. Parishes were marked out and churches built successfully at Yuma, Florence, Prescott, Tombstone, St. Johns, Phoenix, Flagstaff, Solomonsville, not to mention many small chapels in the territory of Arizona, and at other places in the Messilla Valley and in El Paso County.

The first nuns to arrive in the diocese were the Sisters of Loreto, in Las Cruces, New Mexico, at the end of 1869, and the Sisters of St. Joseph, in Tucson, at the beginning of 1870. It required no little courage for that band of seven pioneer Sisters of St. Joseph, one of whom, Sister Euphrasia, is still among us, to confront the discomfort and the dangers of a ride on a stage coach from San Diego to Yuma, and in a rickety old carriage between Yuma and Tucson early in the winter of 1870.

In 1885 Archbishop Salpointe, after twenty long years of a most arduous labor in the vicariate of Arizona, was transferred to the Metropolitan See of Santa Fe, as coadjutor with the right of succession, and Rt. Rev. P. Bourgade, the present bishop, was appointed to succeed him in Arizona.

In 1893 the present bishop, fully impressed with the present necessity of a larger and better church for his flock in Tucson, and well aware

that he could not depend altogether on the local resources for the erection of a new church building, worthy of the name of cathedral, undertook a long and tedious journey to Old Mexico, where, through hard labor and with much impaired health, he succeeded in raising a handsome amount of money. With this to begin with and the material assistance he expected from the generous people of Tucson, non-Catholics as well as Catholics, he soon had his new and handsome cathedral ready for occupancy.

It must be confessed by the historian that discoveries so far fail to reveal the exact dates when the first temporary settlement or the first permanent settlement in Arizona was made. In other words, it cannot be stated with absolute certainty when the first temporary or first permanent missions were established. Coronado's expedition was made in 1540, at which time he was accompanied by priests. It is claimed that documents exist which prove that about twelve years later missions were established among the Indians at or near Tucson. If this be true they were, at best, weak attempts, which were soon crushed out by the Indians themselves and should not be considered permanent settlements nor permanent missions. If anything permanent was done during the remainder of the sixteenth century, such fact is not now known. According to the memoirs of Father Benavides, twenty-seven missions were in existence in what he called "New Mexico" in the year 1626. The most of these are known to have been in what is now New Mexico and it is very likely that some of them were in Arizona, among the Pimas, Maricopas and Papagos. In fact, they may have been established here during the middle or the latter part of the sixteenth century. If so, those in Arizona must have been inconsequential and, aside from preparing the way for future successful attempts, cannot be considered in the light of permanency, which has always been the test of the claim of first settlement.

About the year 1660 the whole missionary field of New Mexico, which probably included a few temporary missions in what is now Arizona, was almost entirely abandoned by the priests, owing to the cruelty and hostility of the Indians. After a few years quiet was restored and the priests again appeared to revive their old ceremonies. In 1680 all the missions, with, so far as known,

not a single exception, were destroyed, many of the priests killed and the others driven out of the Indian country. Three years later, 1683, peace having been restored, the priests again came forward and established permanent missions in New Mexico, and in 1690 in Arizona, and these mis-

sions were the first permanent white settlements. By 1710 there were eight missions in Arizona, the most of them having been founded from 1690 to 1694, at which latter date the old fort was built at Tucson. The above is a summary of the first missions and first settlements in Arizona.



CHAPTER VI.

BY JOHN F. BLANDY OF PRESCOTT.

MINES AND MINING—OPERATIONS OF THE SPANISH MISSIONARIES—STORIES OF FABULOUS WEALTH
—TREASURE CLAIMED BY THE SPANISH KING—LOST MINES—PLACERS AND LEDGES—
FIRST MACHINERY—CONSTANT FIGHT WITH INDIANS—FIRST GREAT MINES OPENED
IN RECENT YEARS—WONDERFUL RUSH AND RAPIDITY OF DEVELOP-
MENT—TOWNS OF MAGICAL GROWTH—RICH STRIKES—FORTUNES
MADE IN A DAY—STATISTICS OF ORES TAKEN OUT—DRAW-
BACKS TO RAPID MINING—GOLD, SILVER AND COPPER—
REDUCTION OF ORES—NAMES OF GREAT MINES—
OTHER MINERALS—PRESENT CONDITION.

Should we seek to write the history of mining in Arizona, we must go back to the time when the early Spanish missionaries entered from Mexico. Whilst the early navigators were exploring the entrances to the bays, inlets and river mouths of the Atlantic Coast, to find places for the first colonists, the "prospectors" were searching Santa Cruz Valley and surrounding hills for silver—the precious metal of that age. Many fabulous stories were told of the discoveries of rich ores and pure silver during the missionary rule, and men are still hunting for the "lost mines" of that region, the abandonment of which was due to the Apache raids. If we consider the men who made these reports and think of what their experience in mining had been, we may possibly see the reason for their giving such glowing accounts of the riches of that region. If they were personally acquainted with the silver mining in Europe, then, no doubt, they would be enthusiastic over the discoveries of the rich silver ores and the many views of the Santa Rita and other mountains of that region, and particularly over the finding of large pieces of native silver in the croppings of the veins. From the shallow extent of their workings, although so numerous, we can hardly suppose that the amount of metal obtained,

extending over many years, was so great or would compensate for the wonderful stories told. We have evidence enough that the ores were rich and veins were many, but they soon gave out in depth and, as a result, we find but few mines. What would, however, be considered as great wealth in their day, would be considered in quite a different light in ours. Their work continued down, with frequent interruptions from the Indians, to the year 1853, the date of the "Gadsden purchase," which added to the United States all the territory south of the Gila River to the Sonora line.

We do not find that they extended their explorations for minerals beyond the Santa Cruz Valley, or the region occupied by the Papago Indians, a peaceful tribe. All the rest of Arizona seems to have been to them an unknown land, at least in regard to its mineral wealth. The rich ores of the Tombstone District, a short distance to the East, and those of the Silver King District at the north, were certainly unknown. Their whole attention seems to have been given to silver mining, together with a small amount of gold washing on the slopes of the Santa Rita mountains.

The raids of the Apaches became more and

more numerous and destructive and brought mining in the Santa Cruz Valley almost to an end by the time of the treaty of 1853.

This change of government opened a new era and many adventurous spirits flocked to this region, attracted by the wonderful stories of the old Spaniards.

In the book, "Across America and Asia," by Raphael Pumpelly, we have a graphic picture of the state of affairs in that section in the few years after the treaty. During that period there seems to have been about as much time and money spent in fighting Indians as in mining, and many noble lives were lost. These troubles, together with the great expense of obtaining the necessary supplies of machinery, etc., made mining anything but a profitable business. Although forts were established at various points, still they were hardly numerous enough to prevent the depredations of the wily savages, and finally the breaking out of the Civil War removed even this protection and left the region, for a time, a wilderness.

During this period I can learn of but one mine having been extensively worked, namely, the "Mowry" lead and silver mine, from which over a million of silver was obtained. Of the lead but little was sold, as it had no commercial value at such a distance from market, and most of it found its way into Sonora.

The entrance of the California Volunteers to repossess the country for the Government brought about quite a change, as a few crushing defeats of the Indians made the country safer. They were soon followed by parties of California placer miners, who soon overran the country north of the Gila River, especially Mohave, Yavapai and Yuma counties. Rapid discoveries were made of the gold sands of the Bradshaw mountain streams, Rich Hill, the Vulture mine, the placers near the Sandy and the silver ores of the Hualapai range. To those may be added an endless number of smaller discoveries, for there seems to have been hardly a mountain or hill that the "prospector" did not reach, in spite of the many local Indian troubles, which continued until the "seventies." Their whole attention seems to have been given to hunting for gold, first in the streams, and afterwards, when these had been well examined, to the hunting for gold veins. The first vein of note which was found by the early pioneers was the Vulture gold mine—near

Wickenburg in 1863. The first printed account I can find of this mine is dated 1871, at which time the works were quite extensive, a depth of 245 feet having been attained. The report says, "at this depth the ore is as free from sulphurets as near the surface, i. e., it contained 1 to 1½ per cent. The ore sent to the mill is not permitted to contain less than \$25 per ton, and much of it yields over \$30. A great deal of this is taken from the quarry on top, but the richest ore has lately been struck in the lowest levels, where assays of ore from the incline below the 240-foot level yield over \$90 per ton." Hauling ore to the mill at Wickenburg, 14 miles, cost \$8 per ton. To give an idea of the cost in those days I quote from the report, "for mining, \$4.12 per ton; milling, \$2.81; hauling, \$8 per ton—total per ton, \$14.93." This mine is still being worked, although it was idle for some years, mostly for the want of fuel. The advent of the railroad at Wickenburg—14 miles distant from the mine—may cause it to start again, as it is by no means worked out.

In 1874 four notable discoveries of silver ore were made, namely, the "Tiger" and "Peck," in the Bradshaw mountains, the "McCracken," silver lead, in the Hualapai range and the "Silver King," north of Florence. The long distances between these several discoveries shows the wide range covered by these indefatigable searchers. Later, 1878, came the discovery of the Tombstone District, with its rich gold, silver and lead ores, thus completing the line of the mineral region from the extreme northwest to the extreme southeast, a distance of over four hundred miles. This will give an idea of the rapidity with which a small band of men searched the country. In the meantime, the miners of the Santa Cruz Valley were not idle.

Notwithstanding the heavy expense of long transportation, machinery was brought into the country via the Colorado River, and hauled long distances through mountain sections, and these mines, Tiger, Peck, McCracken and Silver King, were developed and proved very profitable, producing large amounts of silver from very rich ores. Upon looking over old dates, we find that the lead carbonates of Leadville, Colorado, were also discovered in 1874, although the excitement at that place did not take place until two years later.

trates go per ton?" and the preference is given to the high-grade base ores. No mill is now erected without concentrating machines, whereas a few years ago such a thing was unknown in the Territory.

Another reason why enterprise was depressed, at least in the estimation of those not acquainted with the country, was the absence of running water for milling purposes. It was always stated that mills would be stopped for months in the year for the want of water, but this "bugbear" is not so great as it has been, since those who have had enterprise enough to sink their mines to reasonable depths, have, with few exceptions, found a sufficient supply in the mines. A notable example of this is seen at the Tombstone District. All the ore for many years was hauled a distance of eight to twelve miles, to their mills on the San Pedro River, while at the depth of six hundred feet they found more water than they could handle, and the two best mines had to suspend operations. Another instance we have at the Crown King mine in the Bradshaw mountains, which could not run half the year with water from the stream, is now able to run their ten-stamp mill continually from water encountered in the mine at the depth of three hundred feet. This trouble of water is due, not so much to the absence of it as to the immense evaporation on the surface which takes place in the daytime. I was once "camped" close to a stream where, for many days, I could dip the water with a pail in the morning, and in the evening had to fill it by dipping with a cup. It is necessary, therefore, to get away from the surface evaporation.

Another very great difficulty that mining has had to contend with is that the mineral veins are so scattered that there have been, with the exception of Tombstone, no great mining centers, as in Colorado and Montana. It is here a noted mine and there one, miles apart, consequently no "stampedes," bringing large population together and producing easy means of transportation and kindred competition. This has thrown the whole burden of expense to provide roads and many commercial expenses upon single companies, so that the outlay to get ready to go to work has been as great, or greater, than the opening and equipping of the mine itself. As the country is gradually opened this trouble becomes

more and more eliminated. At first sight this difficulty may not seem so great or of so much moment, but the more it is considered the more important it becomes, and those who have the superintendence of mines soon find the advantages of having plenty of near neighbors.

In making an examination of the occurrence of the precious metals it is hardly necessary to more than make a reference to the "placers," as they do not vary from those of other regions and have often been described in the detail of their occurrence and methods of working. That they are of very great extent is well known. They extend all along the Colorado River, and a large part of the Gila River plains; a large area of Yuma County north of the Gila River; the Big Sandy and Santa Maria streams, and all the streams flowing from the Bradshaw range, the principal of which are the Hassayampa, Black Cañon and Agua Fria, with their many tributaries. Further eastward we have the neighborhood of Riverside on the Gila, Greaterville, at the foot of the Santa Rita mountains, and Oro Blanco District. Large "placer" fields are reported in Southwestern Pima County, but little is known of them. The explorers paid much attention to the "placers" of the small streams in the early days, but they soon exhausted them with small sluices and rockers; at least they took off the cream of the deposits, leaving the remnants to solitary "washers," who are still to be seen scattered in nearly every gulch, and never tire of telling you stories of the past riches. During the last three or four years a very successful "dry washer" has been introduced and are used upon well-known deposits which are distant from any streams, such as Skull Valley and Weaver District. I have been told by good workers that they prefer them to the old rocker method. The absence of water at sufficient heights has prevented the attacking of the large fields by the "California" hydraulic method. But two attempts have been made to use heavy machinery (Bucyrus machines), one on Lynx Creek, eight miles from Prescott, and one near Staunton—both in Yavapai County, but neither have, for various reasons, been successful. Fifty cents per cubic yard is claimed for the ground at Lynx Creek. Grounds in the Black Cañon are claimed to go from eighty cents to a dollar per cubic yard, and much of the ground in Yuma

County as high as \$1.25 per cubic yard. A company has been formed to take the water from the Big Sandy on to these latter plains, both for placer-mining and irrigation. It is quite impossible to estimate the amount of "placer" gold obtained in the Territory, as it finds its way in small lots to the merchants, thence to the express officials, and from them goes to the mints, along with the bar gold from the mines, no account being kept of the separate sources of production.

Taking a general view of the ores and their occurrence, we find that a very large majority of the veins exist in the Archean rocks and are consequently fissure veins. Of this class of deposits the majority again are in the granitic rocks of various character. Next in number come those in the gneissic rocks, and still fewer in the Cambrian series. From these we pass to the veins in the Carboniferous series, as in the Tombstone District, and other places in the southeastern part of the Territory. I know of but one district where the Lower Silurian formation is exposed, namely, from Jerome through to and down the Aqua Fria Valley.

Of the granitic rocks I know of but two localities where the true granite—feldspar, quartz and mica—exists to any great extent, namely, in the Bradshaw mountains, south of the Basin, and in the Sierra Estrella, Maricopa County; all the granitic rocks of Northern Arizona, as far as I have seen them, are granulites and syenites. To this may be added extensive areas of diorite, extending, with some interruptions, through the lower middle section of the Territory, from New Mexico to the Colorado River. The best known parts of this occurrence are at Mammoth, on the San Pedro River, at Upper Cave Creek, the Weaver, Date Creek, Harquavar, and Aubrey mountains. To this general view a detailed description of the various grades of syenites, granulites and porphyries might be added, but such would enter more into their mineralogical description than is consistent with a popular article. To the ordinary observer there is a great sameness in the rocks of the various ranges, and as I state elsewhere, there is but little in the description of the rocks to enable one to distinguish where ores are likely to be found and where not. There are large sections of the Territory overlaid by great layers of lavas. These have in many places been cut deep by cañons, which expose the underlying

granitic rocks and slates. In some of these cañons veins have been exposed in the lower rocks. This is notably the case in the northwestern part of Yavapai County, and the adjoining part of Mohave County, also in the area lying between the Black Cañon and the lower Verde River in the southern part of Yavapai County. There is an innumerable number of mountain ranges—long and short—in all the counties except the three northeastern ones—Coconino, Navajo and Apache—and I know of but few in which gold, silver or lead ores have not been found. The three counties named are underlaid by formations reaching from the Upper Carboniferous to the Eocene, and are not regarded as mining counties, although lead and copper ores have from time to time been found in and around the Grand Cañon, and its branches, and some have been brought out from there for shipment. The ores are of every known variety, auriferous and argentiferous lead and copper ores, and all the known combination of antimonial and arsenical silver ores; sulphides and chlorides of silver and auriferous pyrites. In nearly every district zinc sulphide is found to a greater or less extent, as an accompanying mineral in the veins, and although it frequently carries gold and silver, yet it is not in sufficient quantities as to add value enough to make it merchantable, and therefore is as obnoxious to the miner as to the smelter. With the exceptions of the "Tombstone District" of Cochise County and the "White Hills" of Mohave County, no section can be referred to as a district in which only one class of ores are found. In Tombstone District we have auriferous and argentiferous lead ores; the gold being about one-sixth of the value of the silver. In the White Hills the ores are rich in silver, with a small value relatively in gold. To these two instances may be added the fact that as far as known the veins in the diorites are auriferous pyrites, with frequent occurrences, in small quantities, of the rare vanadic and molybdic lead ores. I know of no occurrence of silver or lead mines in these rocks.

These exceptions are not to be taken as strictly true, but to point out the fact that Arizona does not have the closely divided districts as in Colorado, with its gold camps and silver camps. In Arizona you meet with mines of the different metals scattered without any apparent order. In Mohave County you have the rich antimonial sil-

ver ores of Stockton Hill, near neighbors to the strictly gold mines about Cerbet, and the lead and silver ores about Chloride, also the silver-leads about Signal and the pure silver ores at Rawhide. In the Bradshaw range this is still more marked, as the rich gold ores of the Bradshaw Basin have near them on the south the rich silver ores of the Tiger and other mines, and on the north the pure silver ores of the Peck, Silver Prince and Black Warrior mines. Near the head of the Hassayampa the rich silver ores of the Dosoris and Blue Dick mines are near neighbors to the gold ores of the Jersey Lily, Quartz Mountain and other mines, on the one side, and the gold veins along the Hassayampa on the other. The same may be said of Lynx Creek and Big Bug Creek, the ores of the first being of a very mixed character—sulphides of iron, lead, zinc and copper, with gold and silver, and those of the latter principally lead with gold and silver; the zinc, with an exceptional mine, being scarce. It is true that in some instances these differences are due to marked geological changes, but in many this does not seem a sufficient reason, as the passage from gold to silver deposits is short and apparently the same geological formation.

I lately met with a marked example of this kind in examining a group of claims. There were four veins nearly parallel, having a bearing of nearly north and south. The most western one was a clean gold-bearing quartz about two feet wide; the next, about 300 feet east of the first, is a vein five feet wide, carrying lead ores with gold and silver, the filling of the vein being the decomposition of the wall rock. The next vein, about twenty feet east of the second, was about fifteen inches wide and carried high-grade copper ore, with some gold and silver. The fourth vein, distant about 500 feet from the third, was three feet wide and carried clean silver ores, the vein filling being decomposed porphyry. The inclosing rocks of all the veins were the same—a syenite. Other examples could be cited, as the lead and gold mines of Yuma County; the lead and silver veins of Pinal and the silver and gold veins of the Santa Rita mountains, but it would take too long to refer to all. Upon general principles the prospector decides what kind of a mine he has after he has found the vein and is not governed in any way by the inclosing rocks or the district in which he happens to be.

As might be expected, the values of the silver ores vary much, but in considering this question we have principally to take into account the cost of handling them, for only those that will pay, under past and present circumstances, can be taken into account. For example, the McCracken mine, near Signal, Mohave County, paid handsomely while working their surface ores, and had to close down with an abundance of ore in sight that would average \$30 in value. Much of the assorted silver ore brought to Kingman, the principal shipping point of Mohave County, is worth several hundred dollars per ton; the second class ore has to remain at the mines, there being no means of treating it. I do not know of a silver mill in the county, except at Signal, and that is long out of use. The same may be said of Yavapai County. It has but three silver mills, and they have not been in use for several years. From these facts it will be seen that only high-grade ores of silver can be mined and therefore we have no means of knowing what mines will average.

The following figures of the production of ore for the year 1892, of four mines at Tombstone, will give an idea of the general run of ores in that district:

Mine.	Ounces Silver.	Ounces Gold.	Pounds Lead.	Tons Ore.
Lucky Cuss.	96,208	852.31	237,029	3,208.76
West Side ..	78,974	1,310.01	286,430	1,410.43
Northwest ..	118,614	453.00	289,395	1,529.72
Toughnut...	104,989	627.66	313,005	1,664.67
Total ...	398,785	3,242.98	1,125,859	7,813.58
Average per ton	51.04	0.415	144.1	

With gold ores the question is different. There is no disposition to touch them unless they will average \$10 per ton, and then they ask for large veins and plenty of ore. Consequently, we can feel pretty sure that those that are running will average that amount. Much depends, also, upon the value of the concentrated ore. All of them, with the exception of the Congress, obtain a certain amount of free gold on the amalgam plates. From all the mines more or less assorted ore is also shipped, the assorted ore going generally higher than the concentrated. It is difficult to obtain exact figures for these values, as the owners are not desirous of furnishing such information to the public, for very obvious reasons. I



Charles F. Davisworth

mention the following, which I believe are approximately correct, merely to give an idea of the general character. The Congress mine—no free gold—concentrated ore average seven to nine ounces per ton—vein average, \$20 per ton. Crown King—vein average about \$40 per ton; \$15 to \$20 in free gold; concentrates from seven to seventeen ounces per ton. McCabe—free gold, \$5 and \$10 per ton—concentrates and assorted ore average from four to five ounces per ton. Little Jessie—free gold, \$10 and \$15 per ton—assorted ore seven to twenty ounces per ton—concentrates three to five ounces per ton.

Where there are no mills the assorted ores are sold to the sampler and vary from two to ten ounces. It may be said that there is little or no profit to the miner on two-ounce assorted ore, as the freight and smelter charges leave him but little for his work. He is enabled, however, in this way to prove up his claim and sell it to those who are better able to equip it with mill and hoisting engines. Veins that will yield this class of ore are numerous, in fact, can be counted by the hundreds, and it is safe to say that there are two or three claims, 1,500 feet each, on each vein, so that there is an abundance of room for future development. A vein that will yield \$8 to \$10 in free gold, with concentrates of a good shipping value, can be looked upon as a safe investment, the surroundings being reasonable and management judicious.

It would take too large a book to refer to all the mines in detail, or even those best known, or to describe all the districts in the several counties, besides in such a description there would be a great repetition, since the districts resemble each other so much in the eyes of the general observer. As stated before, Cochise County, or the Tombstone District, is the marked exception in Arizona, and this has been pretty fully described by Prof. W. P. Blake in Vol. X of the *Transactions of American District Mining Engineers*. Furthermore, in writing out a detailed description, one would bear in mind the old saying that "comparisons are odious," and should the writer fail to note some mine or give due credit to a district, he would not fail to hear of it. I have endeavored to give an idea of the extent of the mining section of silver and gold of Arizona; the value of the ores of both characters, and the difficulties under which it has labored in the way of

costs in transportation, etc. These difficulties are fast disappearing and will continue to grow less. In my remarks I intend them to apply to each any every district, as they are equally applicable to all.

It does not seem that Arizona can ever become known as a lead-producing country, although lead ores are a common occurrence in the silver and some gold mines. Still, there are some lead sections, as Chloride District, in Mohave County; near Wickenburg, in Maricopa County; Eureka and Castle Dome districts, Yuma County; the Mowry and other mines in Washington District, Pima County; the Reymort and other mines, Pinal County; Tombstone District, Cochise County, and the Aravaipa District of Graham County. The price of lead is too low for them to become prominent.

The copper deposits of Arizona have been described at length by Arthur F. Wendt, in an article on "The Copper Ores of the Southwest," in Vol. XV of the *Transactions of American District of Mining Engineers*. In this article he described in detail the five noted camps of the Territory, viz.: Bisbee, Longfellow, Morenci, Globe and Jerome, which together produced something over 48,000,000 pounds of copper in 1895. A few mines near Tucson can be added to this list, but they have not been regular producers. Many copper deposits are known in various districts in every county, but they have not as yet proved of sufficient size to bring them into prominence or even cause them to be worked.

Of other ores the most conspicuous is manganese, but its long distance from market makes it valueless. Zinc has only been found as a sulphide and the cost of transportation makes it valueless. Very considerable amounts of vanadium and molybdenum could be had from the Mammoth District, on the San Pedro, and from Yuma County, but the market is so limited that it is of no use. Quick silver has been found in small quantities in Skull Valley, Yavapai County.

I know of but one large iron (manganiferous) ore deposit in the Territory, in Mohave County, but too far from railroad to be available.

Sulphide of antimony has been found in many places, but not in such quantities as to pay for working.

There are four localities where turquoise has

been found, Tourquoise District, Cochise County; in the Galiuiro mountains, Pinal County; near Mineral Park, Mohave County, and at Cave Creek, Maricopa County. These were all worked by the prehistoric race and not any by the present people.

Onyx (Mexican onyx) in large beds has been found on Big Bug Creek, Yavapai County, and also on Cave Creek, Maricopa County. It is considered quite equal to the Mexican variety and will no doubt soon be worked on a large scale. Full reports of the Big Bug beds have been published, with illustrations, and as they treat the whole subject of that valuable stone, they are very instructive reading.

Lithographic stones in large beds have been

most western point at which this field is worked is at Gallup, New Mexico. In the extension of the coal beds west of that place, along the railroad, they become too thin to be worked, but in the extension northward toward Moencopie, Wash and Eagle cliffs, the beds become large and valuable. In one of the reports of an early Government expedition, they report seeing beds twenty feet in thickness. Most all of this field in Arizona is covered by the Moqui and Navajo Indian Reservation. These coals belong to the Cretaceous Formation and are lignites. Several small patches of this same coal are found in Apache County, south of the Atlantic & Pacific Railroad line, and extending as far south as Fort Apache. None of them are, however, large enough

THE FOLLOWING TABLE OF THE PRODUCTION OF COPPER IN ARIZONA IS TAKEN FROM "MINERAL INDUSTRY," VOL. II.

Pounds of Fine Copper.

Year.	Arizona Co.	Copper Queen.	Commercial.	Detroit.	Old Dominion.	United Verde.	United Globe.	Other Mines.	Total.
1880.....		1,379,940							
1881.....		3,866,581							
1882.....		7,744,278		1,442,935	1,863,082			6,933,705	17,984,000
1883.....		7,523,981		2,819,530	4,401,149	1,325,534		7,803,806	23,874,000
1884.....	3,539,556	7,668,617		2,749,997	7,073,928	3,834,290		1,867,612	26,734,000
1885.....	6,772,239	6,663,782		3,345,523	4,691,146	168,388		1,065,288	22,706,366
1886.....	5,513,549	3,797,256		2,110,690	4,384,958			193,547	16,000,000
1887.....	5,539,771	5,707,728		4,175,717	1,386,979	272,124		707,681	17,790,000
1888.....	6,833,528	12,031,614		5,235,797	4,447,834	3,085,651		1,505,576	33,200,000
1889.....	6,787,201	12,152,910		4,875,696	5,678,890	1,923,748		1,514,555	32,933,000
1890.....	5,164,906	13,120,934		4,906,704	7,411,214	5,475,573	398,849	807,861	36,977,192
1891.....	5,673,611	13,022,957		4,194,672	6,982,101	7,350,087	2,302,765	4,671,271	41,894,699
1892.....	5,893,533	12,916,416	282,451	1,918,594	7,698,297	9,524,492		149,333	38,383,116
1893.....	7,871,819	13,795,618	273,330	4,942,728	7,665,293	9,466,246		103,741	43,773,675
1894.....				5,714,000	5,041,027				44,531,108
1895.....	11,779,070	16,153,744						1,997,232	48,000,000

opened at two places near Squaw Peak, in the Verde range. These have been well tested, and though not equal to the Bavarian stone, are still valuable and can be used for a large class of engraving. In the same quarries a beautiful variety of pictured stone has been opened. It is chemically of the same character as lithograph stone and takes a very high polish. It will no doubt become valuable as an ornamental stone, as it is hard and stands the weather well; it can be used for exterior work. The deposit is very extensive.

Sandstones of unsurpassed quality are quarried at Flagstaff, on the line of the St. F. P. & P. Ry., and near Phoenix.

But little, or I may say nothing, has been done to develop the coal resources of Arizona. I estimate that the coal field of Northwestern Arizona has an area of about 9,000 square miles. The

to warrant the building of branch railroads for their development. All these beds lie nearly horizontal.

In Gila and Graham counties is the so-called San Carlos coal field. Here the ovals are of the Carboniferous Formation. Some work of exploration has been done on different beds. They dip at a high angle and are much disturbed by the many outbreaks of volcanic rocks in the vicinity. The coal is of good quality—approaching an anthracite, but the limited openings made find but little lump coal. But little can be said of the continuance of the beds until more extended work has been done on them. This same coal formation has been found in the Chiricahua mountains near San Simon, and on the slope of Whetsone Mountain. But little work known has been done to prove the extent or value.

CHAPTER VII.

EARLY SPANISH EXPLORATIONS—DE VACA AND DE NIZA—THEIR INCONSISTENT STORIES—DEATH OF THE MOOR—TALES OF WEALTH—SEVEN CITIES OF CIBOLA—DESCRIPTION OF THE PEOPLE AND THEIR CUSTOMS—CORONADO'S EXPEDITION—THE INDIAN VILLAGES—OBJECTS OF THE EXPEDITION NOT REALIZED—ESPEJO'S EXPEDITION—THE RUINS FOUND—TUSAYAN—BATTLES WITH THE NATIVES—DISAPPOINTMENT OF THE SPANIARDS—END OF THE EXPEDITIONS.

Although comparatively unknown by the mass of the people, Arizona was one of the first sections of country now forming the United States to be explored by the white man. When Alvar Nunez Cabeza de Vaca and his three companions made their wonderful escape from Indian slavery in Florida, in the early part of the sixteenth century, and made that perilous overland trip to Mexico, so graphically described in the old Spanish chronicles, they journeyed across the present Territory of Arizona from north to south. Their descriptions of the thrifty villages they had visited aroused new desires in the Spanish hearts of Mexico for further conquest and glory.

The expedition to Florida, of which de Vaca was a member, was projected in 1527, but was divided and for ten years de Vaca wandered westward through the interior, at last reaching Mexico. When he reached the towns of what is now Arizona, or what particular towns he visited, are matters not definitely known; nor is it absolutely certain he visited what is now Arizona at all. Indeed, his whole story is doubted. His descriptions seem to fit the early conditions of things found in New Mexico better than those found in Arizona. However, he is generally regarded as the first white man to set foot on the soil of Arizona and to eat the maize and beans of the native. This is supposed to have been about 1535.

The "Seven Cities of Cibola," located in the western part of New Mexico, early became known to the Spanish adventurers in New Spain,

no doubt long before any white man had visited the place. Tales of the almost fabulous wealth of the inhabitants were freely circulated, not only in Mexico, but in Europe, and the greed for silver and gold induced many explorers to plan expeditions in search of this reported treasure. In 1530 Vino de Gurman organized such an expedition, but it became demoralized, probably before Arizona was reached, and was abandoned. In 1539 Fathers Marcos de Niza and Hoporato, guided by Estevanico, a Moor, who had crossed the continent with de Vaca, started from Culiacan, Mexico, and in due time reached the Santa Cruz and the Gila rivers, where they later found the Pima Indians occupying the same territory their descendants do at this day. While here they learned more of the "Seven Cities of Cibola" and were also informed that a few days' journey to the eastward, or up the Gila, was a large plain thickly populated by a rich and prosperous people. In fact, they were told that gold was so plentiful that household utensils were made of it. They continued eastward, accompanied by many natives, and reached the villages, probably of the Maricopas, and there learned that the famous "Seven Cities" were distant about thirty days' journey. As a precautionary measure, de Niza sent the Moor and several Indians in advance to prepare the way for his people, who were well received by the Pimas and Maricopas. More fear was anticipated from the "Seven Cities," as the inhabitants were reported to be more advanced, more independent and less likely to want

any interference from so large a company of strangers. In his record, de Niza affirms the reports of the wealth of the Indians. He claims he found extensive tracts of agricultural country, highly cultivated, and that the people possessed large quantities of gold, silver and precious stones. At the Maricopa villages more natives joined his company, until when they at last appeared in the vicinity of the "Seven Cities" of the Zunis they numbered about 300 men, women and children. How they managed to subsist is not stated.

The messengers who were sent in advance to ask the permission of the governor of Cibola that the company might be received, was informed that they were not wanted, would not be received, and would be put to death if they dared to come within the limits of the city. But the Moor, with his 300 Indian companions, was not daunted by the threat and accordingly entered the city. They all were immediately disarmed and imprisoned and the next day all save three were slaughtered by the indignant inhabitants, the Moor sharing the fate of the others. This story has been denied, and may have been only a romance of the good father who was desirous of founding a mission among this people. According to the account, it seems that Father Niza discreetly remained in the background until after he had learned of the fate of the others.

De Niza was convinced of the impossibility of forcing an entrance into the city or visiting it peaceably, and so concluded to make as thorough an examination of it as he could from without. So he told his remaining followers that he proposed to see it at all events, but not one would accompany him. Finally, when they saw him actually start alone, two of the chiefs consented to join him, and with them and his own Indians from the south, he proceeded until he was within sight of the long-looked-for city. He found that it was situated "on a plain at the foot of a round hill, and maketh show to be a fair city, and better seated than any that I have seen in these parts. The houses are builded in order, according as the Indians told me, all made of stone with divers stories, and flat roofs, as far as I could discern from the mountain, whither I ascended to view the city. The people are somewhat white; they wear apparel and lie in beds; their weapons are bows; they have emeralds and other jewels, al-

though they esteem none so much as turquoise, wherewith they adorn the walls of the porches of their houses and their apparel and vessels, and they use them instead of money through all the country. They use vessels of gold and silver, for they have no other metal, whereof there is greater use and more abundance than in Peru." Having viewed the city, which his comrades told him was the least of the Seven Cities, the friar named the country "El Nuevo Reyno de San Francisco;" "and thereupon," he says, "I made a great heap of stones by the aid of the Indians, and on the top thereof I set up a small, slender cross, because I lacked means to make a greater, and said that I set up that cross and heap in the name of the most honorable Lord Don Antonio de Mendoza, Viceroy and Captain-General of New Spain, for the Emperor, our lord, in token of possession." Not satisfied with thus formally annexing the City of Cibola itself to the Spanish dominion, de Niza further solemnly declared that the possession which he then took was "also of the 'Seven Cities,' and of the kingdoms of Totontec, of Acus, and of Marata."

A short time before reaching Cibola he had met a resident of the "Seven Cities," almost a white man in appearance, from whom he had learned a great deal about the country. He was told that there were seven large cities in the vicinity of the one to which he was refused admission; that each had a separate governor and separate public buildings; that many of the structures were five stories high; that the central of the seven cities was called Ahacus, in which the Lord of the Seven Cities lived; that lieutenants governed the Seven Cities and were controlled by the rulers, who met at certain times to pass laws and formulate their public policies. He was told that to the westward was a rich and very populous country called Totontec, to the southwest another called Marata, with which nation the "Seven Cities" were continuously at war and another to the southward called Acus.

The route taken by Marcos de Niza on this celebrated expedition is, says L. B. Prince, so far as its main features are concerned, easy to distinguish. He first traveled nearly parallel with the coast of the Gulf of California, until he reached its head, and then turned to the northeast, and continued traveling in that general direc-

tion for the rest of the distance. The fertile and populated valleys were along the Gila and its tributaries. There is no doubt at all that Cibola was Zuñi, being what is now called the "Old Pueblo," or "Old Zuñi." The kingdom to the southeast may have referred to the Pueblo country in the vicinity of Acoma and Laguna, or possibly to one still more distant and across the Rio Grande, toward Abó and the ruins now called "Gran Quivira." Totontec, if situated as stated, to the west, would be identical with the Moqui towns; and Acus might have been the country now represented by the ruins in the Chaco Valley, the Pueblo Bonito, etc. So many mistakes, to put it in the mildest form, have been proved to exist in the records of de Niza that nearly everything he wrote of this expedition has been taken with many grains of allowance.

The first expedition up the Colorado River was made in 1540, and consisted of two ships commanded by Fernando de Alarcon, who sailed from the port of Santiago on the 9th of May, and, proceeding along the coast toward the northwest, reached the extremity of the Gulf of California in August following. This expedition was made in conjunction with that of Coronado, the two being expected to move and work in harmony. There he discovered a great river, which he named Rio de Nuestra Señora de Buena Guia (or River of our Lady of Safe Conduct), probably the same now called the Colorado. This stream Alarcon ascended to the distance of more than eighty leagues, with a party of his men, in boats, making inquiries on the way about the "Seven Cities," in reply to which he received from the Indians a number of confused stories, of kingdoms rich in precious metals and jewels, of rivers filled with crocodiles and other monsters, of droves of buffalos, of enchanters, and other wonderful or remarkable objects.

Of Totontec he could learn nothing, though, at the end of his voyage up the river he obtained what he considered some definite information regarding Cibola and was told that he might reach that place by a march of ten days into the interior. Suspecting treachery on the part of his informants, he concluded that, under the circumstances, it was not wise for him to advance further, and so returned to his ships. Later he made a second voyage up the Colorado, but made no important discoveries.

In 1540 an expedition for the conquest of Cibola and the wonderful Land of the Seven Cities was decided on. The most adventurous cavaliers of New Spain hastened to take part in the enterprise. The best families of Castile were represented among them, and the troop of 400 which finally started was the most brilliant which, at that time, had ever been raised in the New World. Francisco Vasquez de Coronado, the Governor of New Galicia, was very properly appointed as Captain-General, by the Viceroy, both because the discovery of Cibola had been made through his instrumentality, and because his province was the natural starting place of the expedition. He was a man experienced both in arms and in government, wise, prudent and able, and a great favorite with Mendoza. The Viceroy also appointed the other officers of the expedition, and here the only difficulty which arose was from an *embaras de richesses*. *"Seeing the great number of gentlemen taking part in this expedition," says Castañeda, "the Viceroy would have been glad to give each one the command of the army, but as the soldiers were so few, it was necessary to make a choice. He concluded to name the captains himself, because he was so greatly loved and respected that he knew no one would refuse to obey those whom he designated."

The historian of the expedition, Pedro de Castañeda de Nagera, who accompanied it through all its journeyings, and afterward in Culiacan, wrote a full account of all that occurred, mentions a number of other illustrious names, in order to impress upon the reader the chivalrous and aristocratic character of those who were engaged in it, and to prove that it contained "more men of quality than any which has been undertaken for the making of discoveries," adding that it must surely have been successful but for the great riches, and the young bride, noble and charming, left behind by the commander, to which attraction he attributes his intense desire to return at a later day. With the 400 Spaniards were 800 Indian soldiers, so that the entire expedition was composed of 1,200 men.

After much fatigue the army reached the town of Chiametla, and here it was discovered that the supply of provisions was already failing, and a halt of some days was required in order to replenish the stock. From this place, Samaniega,

*Sketches of New Mexico by L. B. Prince.

the Maestro de Campo, imprudently went with only a few men to an adjacent Indian village, and while there was shot in the head with an arrow and killed. A grand military funeral was had, and all the natives who even "seemed to be" inhabitants of the place where the murder took place, were hung, but the affair naturally cast a gloom over the expedition.

The army remained here for a month, but Coronado himself only stayed half of that time, as he was impatient to press on to the exploration, if not the immediate conquest, of the famed lands before him. So he took a few of his most intimate friends, and with fifty horsemen and a few soldiers on foot, started in advance, leaving the main body of the army under the command of Don Tristan de Arellano, with orders to follow him in a fortnight. The General took with him all of the priests, as for some reason none of them would remain with the army, but after proceeding on the march three days, one of their number, named Antonio Victoria, happened to break his thigh and had to be sent back to Culiacan for treatment, "which," says Castañeda, "was no small consolation for all the people." Meanwhile Coronado and his party were proceeding successfully on their journey, full of enthusiasm, and meeting with no trouble from the natives, as many of the latter were acquainted with de Niza, or had acted as an escort on the recent expedition of Diaz and Saldívar; and so they arrived at Chichilticale.

But here a great disappointment awaited them. Instead of the flourishing town they had been led to expect, they found in reality but one single building, and that in ruins and even without a roof. It is true that its proportions and style of architecture proclaimed it to be the work of some superior and civilized nation, differing widely from the inhabitants of the country around, but that was small consolation under the circumstances. They had come seeking the riches of the present, and not the relics of the past. This building, Chichilticale, is almost beyond a doubt identical with the structure now called "Casa Grande," of Arizona, which has been so frequently described by travelers in recent days, both the situation and the description making the identification almost positively certain.

At this point the great desert began, but Coronado would not wait for his army, but pressed

on rapidly with his little escort in hopes of making discoveries of such importance that the present disappointment would be forgotten. For fifteen days they marched through a continuous desert, barren, sandy and devoid of water, but at length their eyes were gladdened by the sight of a narrow stream, whose waters had such a reddish tinge that they named it Vermejo. What added to their joy was the fact that they were but eight leagues from the special object of their journey, the City of Cibola. Here they saw a few Indians, but could open no communication, as the latter fled as soon as they were approached.

Marching on, on the evening of the next day, when they were but two leagues from the city, they discovered some Indians on an elevation, who raised such a frightful cry that it startled and alarmed the Spaniards, who were unaccustomed to such extraordinary sounds, the fright of some of the soldiers being so intense, Castañeda says, that they "saddled their horses wrong end foremost." "But," he adds, "these were men of the new levy." The veterans started in pursuit of the Indians, but the latter succeeded in escaping to the city.

The next day the whole army arrived in sight of Cibola, but here their disappointment was even greater than at Chichilticale, and the air was filled with maledictions against Friar Marcos and his enormous exaggerations. Instead of the large city described in his "Relation," they saw a small town located upon a rock, containing not over 200 warriors, but protected from capture by the steepness and difficulties of its approach. It was true that the houses were of three or four stories in height, but they were small and inconvenient, and one court-yard had to serve for an entire quarter. The whole province contained seven cities, some of which were much larger and better fortified than Cibola.

The Spaniards had hoped that their overtures of peace and friendship would be accepted without question or delay, but the Indians seemed to understand that peace meant subjugation, and so only replied to the demand of the interpreter by menacing gestures, and drew up their warriors in good order to resist an attack. This speedily followed, for Coronado led his followers to an immediate charge, with loud cries of "Santiago."*

*St. James, the war cry of the Spaniards.

The Indians could not withstand this attack, but fled to the shelter of the town. The Spaniards followed, but found that the task before them was not an easy one. The single approach was steep and dangerous, the commanding position of the town on the summit of a rocky mesa, giving its defenders an immense advantage. The assailants, as they attempted to carry it by storm, were received with showers of stones, one of which struck Coronado himself to the ground, where he would have been killed had not Hernando de Alvarado and Lopez de Cardenas thrown themselves before him and protected him from the showers of missiles with their own bodies. Nevertheless, his followers pressed on, and "as it is impossible to resist the furious attacks of Spaniards," says Castañeda, in less than an hour the city was captured, and the Europeans marched in triumph through the streets of the first Pueblo town that had ever felt their tread. The conquerors were rejoiced to find a plentiful supply of provisions, of which they were sorely feeling the need, and, after a short period of rest, Coronado succeeded in reducing the entire province to subjection.

Meanwhile, the army which had been left at Culiacan, under the command of Arellano, had slowly proceeded on its march, traveling on foot and with considerable difficulty. They passed through the town which Cabeza de Vaca had called "Corazones," where the commander was so much pleased that he concluded to colonize the country. From here they tried to obtain news of the ships of Alarcon, which were to have accompanied them to the head of the gulf, but could learn nothing, and so they stopped at the new town, which was called Sonora, awaiting news and orders from Coronado. These came in the middle of October, by the hands of Melchior Diaz and Juan Gallegos, and the main army immediately set out for Cibola.

Gallegos proceeded to Mexico to carry an account of the expedition, as far as it had progressed; and he took with him Friar Marcos, who had been obliged to fly from the army at Cibola on account of the indignation of the troops at the exaggerations and falsities, of which it had now been proved he had been guilty, in the relation of his former journey. Arellano and a considerable number of soldiers who were sick, or had not the strength requisite for the hardships of

the coming journey, remained at Sonora. The main body marched over the same route taken by Coronado and were hospitably received by the Indians along the road, who had been well treated by the General. They reached the desert at Chichilticale without notable adventure, except that many were seized with a violent illness from eating preserved Indian figs, given to them by the natives. When almost across the desert, and within a day's march of Cibola, they encountered a violent storm, followed by a very severe and deep snow. The Spaniards resisted the cold without difficulty, but the Indians who accompanied them suffered very severely, as they came from the warm country to the south, and had never experienced such intensely frigid weather before. Some succumbed to the exposure and perished, while many others were only saved by being carried on the horses, while the Spaniards walked. On arriving at Cibola, however, the army found not only a warm welcome from the General and their comrades, but that Coronado, with an unusual degree of care, had provided for them excellent and comfortable quarters in advance.

While the whole army, thus reunited, was resting after its desert march, Coronado endeavored to obtain information of the surrounding country. He was soon told of a province called Tusayan, twenty-five leagues distant northward, where there were seven cities similar to those of Cibola. The inhabitants were said to be very brave, but the Cibolans could give no very exact information concerning them, because there was no intercourse between the two provinces.

Coronado was unwilling to continue his march until this province had been visited, and consequently sent a small detachment, under Don Pedro de Tobar, in whose bravery and address he had special confidence, to reconnoiter, and, if practicable, take possession of the country. With them was sent, as an adviser, half spiritual and half military, Friar Juan de Padriola, a Franciscan monk who had been a soldier in his younger days. The expedition marched so rapidly and secretly that it arrived in the province and up to the very walls of the houses of the first village without being discovered and encamped after dark in the midst of the unsuspecting population.

At dawn the Indians were astonished to see the strangers at their doors, and especially

amazed at the sight of the horses, the like of which they had never seen before. An alarm was sounded, and the warriors quickly assembled with bows and clubs to drive away the invaders. The Spanish interpreter endeavored to explain that they came as friends, but the Indians, while hearing them politely, insisted that the strangers should withdraw, and, drawing a line on the ground, forbade any of the Spaniards to pass beyond it. One soldier rashly ventured to cross, when he was immediately attacked and driven back. At this the friar, who seemed to have been more aggressive even than the Captain, urged a charge, exclaiming, in vexation at the delay, "In truth, I do not understand why we have come here!" at which the Spaniards rushed forward and killed a great number of the Indians, while the remainder fled to the houses for protection.

These soon returned in the attitude of supplicants, bringing presents, and offering their own submission and that of the whole province. During the day deputations came from the other towns to confirm their surrender, and to invite the Spaniards to visit them and trade.

In this province, which was then called Tusayan, but which is identical with the modern Moqui, were seven villages, which were governed as were those of Cibola, by a council of aged men, having also governors and captains. They raised large quantities of corn and had well tanned leather, and among the presents which they brought to Tobar were poultry and turquoise.

Having accomplished its object, the expedition returned to Cibola, where Don Pedro gave an account of his adventures to Coronado, and also told him of a great river further to the west, of which he had received information from the people of Tusayan. On this river it was said that a race of giants lived, and so much was told of its extraordinary size and character that Coronado determined to send another expedition to explore it. Accordingly, Don Garcia Lopez de Cardenas, with twelve horsemen, set forth, proceeding first to Tusayan, where they procured guides and laid in provisions for the desert journey. After traversing an uninhabited country for twenty days, they at length arrived on the banks of the river. This river the discoverers called the Tison, correctly recognizing it as the same of which the mouth had been seen at the head of the Californian Gulf. It is now known

as the Colorado of the West, and its Grand Cañon, along which Cardenas thus marched nearly three and a half centuries ago, is one of the most wonderful natural curiosities of the world.

They found so deep a cañon that the sides seemed "three or four leagues in the air." It was impossible to descend the rugged and almost perpendicular banks to the water, so the party marched along the side for three days, hoping to find a safe place at which to make a descent.

The river was so far below that it appeared but an arm's length in width, but the Indians assured the Spaniards that it was fully one-half league across. At length they arrived at a point that seemed more favorable for an attempt to descend, and Captain Melgosa, Juan Galeres and one other soldier, who were the lightest and most active of the company, volunteered to make the experiment, but toward nightfall they returned, torn and exhausted, reporting that they had only been able to accomplish a third of the distance. They said that even from there the river assumed large proportions, and that some of the rocks, which, from the surface, appeared scarcely as high as a man, were in reality taller than the tower of the cathedral of Seville. The expedition proceeded somewhat farther along the river until it reached some great falls, but was finally compelled to return for want of water. About this time Hernando de Alvarado, with twenty men, proceeded eastward and discovered the town of Acuco, the Province of Tiguex, on the Puerco River, and the town of Cicuyé, on the Jaurez River, near the present pueblo of Santa Ana.

The greater part of the force of Coronado soon returned to Mexico, while the remainder, under their commander, continued to wander over the interior of the continent for two years, searching for a country called Quivira, which they found, and which proved to be near the headwaters of the Platte and Arkansas rivers. Nothing was gained, and in 1543 they started for Mexico. They returned through Central Arizona, saw again Casa Grande, visited the Pima settlements on the Gila, discovered many other ruins of the ancients, which they called "Casas Grandes de los Azteques"* and at last went south to Mexico. It has since been ascertained that Coronado's route outward from Mexico extended into Arizona, through the val-

*Great houses of the Aztecs.



PHILLIP K. HICKEY.

ley of the Santa Cruz, passing near what is now Tucson, thence to the ruins at Chichitcale (Casa Grande), thence across to the Salado, which he followed until it emptied into the Rio Verde, thence up the latter to the Chino, thence across the country to the San Francisco mountains, thence to the Colorado Chiquito, thence to the Moqui villages.

"The explorer of those days," says Prince, "was traveling entirely in the dark. Nothing in more modern times has been similar to, or can again resemble, the uncertainty and romance of those early expeditions, for the recent explorers of Africa, for example, had a perfect knowledge of the shape of the exterior of the continent, and knew exactly what tribes lived on each shore, and what rivers emptied into each ocean. All that was left as a *terra incognita* was a certain area in the center, and that of known length and breadth. But the early explorers of America literally knew nothing of the land they entered. It was absolutely virgin soil. They might find impassable mountains or enormous lakes; they might have to traverse almost interminable deserts, or discover rivers whose width would forbid their crossing; they might chance upon gigantic volcanoes, or find themselves on the shore of the ultimate ocean. And as to inhabitants and products, they were equally ignorant.

We are sometimes induced to smile at the marvelous stories related by some of the older explorers, at their still more extravagant expectations, and the credulity with which everything (however exaggerated or unnatural) relating to the new continent was believed. But we must remember that it was a day of real marvels, and that nothing could well be imagined more extraordinary and unexpected than those things which had already been discovered as realities. An entire new world had been opened to the enterprise, the curiosity, the cupidity and the benevolence of mankind. It is, as if to-day, a ready mode of access to the moon were discovered, and the first adventurers to the lunar regions had returned laden with diamonds, and bearing tidings of riches and wonders far beyond the wildest imagination of former generations. Just so the early explorers had returned to the eastward, telling of the marvels of the new Indies, of the luxuriant vegetation, the vast extent, the untold riches, the silver and the gold of the western con-

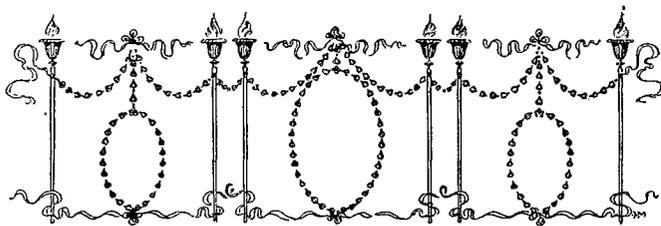
continent. As one adventurous explorer followed another, new discoveries were constantly made, each apparently exceeding its predecessor in importance, in riches and in glory. Amerigo Vespucci landed on the mainland of the south, and the Cabots and Verazano skirted the shores of the northern parts of the continent. Then Cortez discovered and conquered the great empire of the Montezumas, and Pizarro subdued the rich dominions of the Incas. The wealth of these two fallen kingdoms was a marvel, as the accumulated treasures of generations fell into the hands of the conquerors, as it were, in a moment.

It was not until 1582 that any further successful efforts were made to explore the region known to the Spaniards as "Arizuma." In that year Antonio de Espejo led an expedition toward the north. He penetrated to the region of the Rio Grande, traveled up that stream some fifteen days, and named the country Nuevo Mexico. He passed through many pueblos, and, turning westward, visited Zia, or Cia, and Acoma. The former place he speaks of as having a population of 20,000 souls, "and containing eight market-places and better houses, the latter plastered and painted in diverse colors." The Zuni pueblos were next visited and named Cibola. From this point, Espejo traveled westward to the Moqui towns, one of which was called Zuguato, where he was received most hospitably and presented with baskets of corn and mantles of cotton cloth. They were offered a gift of 40,000 mantles of cotton and rich metals. Tarrying here but a short time, he again journeyed on, and forty-five leagues southwest of Moqui, on a mountain easily ascended, he discovered rich silver ore. The mines were situated near two rivers, whose banks were lined with great quantities of wild grapes, walnut trees and flax "like that of Castile." In the vicinity of the mines were many Indian pueblos, and near there were two rivers. From the description it is evident that reference was made to the Moqui villages, the San Francisco mountains, the region around Prescott and to the rivers Verde, Salinas and Colorado Chiquito. His zeal as a missionary induced him, like de Niza, to overstep the bounds of truth, so that his descriptions are regarded as untrustworthy. From Zuni, Espejo retraced his steps to the Rio Grande, and, crossing over to the Rio Pecos,

descended that stream to its mouth and then returned to Mexico, where he arrived in 1583.

After these attempts to explore what is now Arizona, the country remained undisturbed by the Spaniards for a century and a half. Individual explorers and missionaries entered the territory, but no general exploration was attempted, or at least carried into effect. The early reports of the fabulous wealth of the Indian towns had been dissipated as the dreams of over-zealous priests who, desiring to save the souls of the savages, and perhaps gain for the church much wealth and strength, had greatly exaggerated the treasure to be found among the natives, the extent of their civilization and the number of the inhabitants. The exploration of Coronado was sufficient to burst the bubble and expose the

poverty and primitive habits of a comparatively small population. It was seen by the Spaniards in Mexico that nothing was to be gained by a conquest of this country, and accordingly the missionaries were left alone to carry on their work of spreading a knowledge of the gospel among the rude Moquis, Pimas, Maricopas, Zunis, Mojaves, Hualapais and others. The explorations which have been thus treated of in this chapter were purely of a military character, planned and undertaken with the view of adding to the domain of New Spain a country believed to be rich in treasure and agriculture, and to be populated with a prosperous and numerous people. When the truth became known, all other explorations of a similar character were abandoned.



CHAPTER VIII.

RECENT EXPEDITIONS—EXPLORATIONS AND DISCOVERIES—THE PATTIE PARTY OF HUNTERS AND TRAPPERS—WEAVER, LEREUX, WALKER, WOsENCRAFT—GOVERNMENT SURVEYORS AND EXPLORERS—THE BOUNDARY COMMISSION—THE ANDERSON AND THE SMITH PARTIES—LIEUTENANTS DERBY, SITCREAVES AND WHIPPLE AND THEIR EXPEDITIONS—FATE OF GALLANTIN AND HIS BAND—ROUTES OF VON COEUR, GRAY, WILLIAMSON, POSTON, EHRENBERG, PARKE, BEALE, SIMPSON, GRAHAM, NEWBERRY, BECKWITH, EMORY, BARTLETT, BELL, ROTHROCK, WOOLSEY, PUMPELLY, POWERS, MARCOU, MACOMB, WICKENBERG, BRUNCKOW, WHEELER AND OTHERS—CRABB'S FILIBUSTERING EXPEDITION—IVES' EXPLORATIONS OF THE COLORADO RIVER AND THE COLORADO PLATEAU—FIRST STEAMERS ON THE COLORADO—THE MINER • EXPEDITION, ETC.

As early as 1824 Sylvester Pattie and his son, James O. Pattie, of Bardstown, Kentucky, together with about one hundred hunters and trappers, went to the headwaters of the Arkansas River on an expedition of discovery. In New Mexico they disbanded, and a small party of them tried to reach the Pacific Coast. After spending the winter at the "Copper Mines" in New Mexico, they went west to the Gila River, and followed the same leisurely down to its union with the Colorado, hunting and trapping on the way. They went down the Colorado in canoes, crossed over to the Pacific, and arrived at San Diego in 1830, where they were imprisoned by the Mexican commandant, and where the elder Pattie died in confinement under cruel and unjust circumstances.

Dr. Anderson and party went through Southern Arizona on their way to California in 1827. He visited the Pima villages, where he secured guides, and, on the whole, had little difficulty with the Indians.

It is stated that Pauline Weaver, hunter and trapper, visited the Pima villages, on the Gila, as early as 1832. Felix Aubrey also paid several visits to the Tonto Basin in Arizona. There is

no doubt that other hunters and trappers from the older settlements on the Rio Grande, in New Mexico, penetrated to the valleys of the Gila, and its tributaries, as well as to those of the Colorado, Little Colorado, and the branches of the latter. Capt. John Moss, Capt. Adams and their parties visited the cañons of the Colorado. Prof. John Davis and Antoine Leroux, a French hunter, trapper and guide, visited the Gila and its branches, as well as the Colorado. The reports of Emory, Albert, Whipple, Cooke and Johnston, who explored Arizona, are given in this work separate accounts. As a matter of history, the United States Boundary Commission, under John R. Bartlett, was one of the first large bodies of men who penetrated Arizona and made the details of their visit known to the world.

Capt. Jedediah S. Smith was the first white man who went overland to California. In 1825 he led a company of forty men into the country west of Salt Lake, crossed the Sierra, and entered California in July, 1825. He returned through Walker's Pass. He was sent by the Fur Company the next year with instructions to inspect the gold placers. He gave the first reports of gold found at Mono Lake, and

other points, on his first return trip. On his second trip, in 1826, he passed as far south as the Colorado River, and here had a battle with the Indians, in which all but himself, Turner and Galbraith, were killed. They escaped and arrived at the Mission San Gabriel, where they were arrested as filibusters and sent to San Diego, where they were released upon a certificate from the officers of some American vessels that chanced to be on the coast, that they were peaceful trappers and had passports from the Commissioner of Indian Affairs. Later, on the Umpqua River, near Cape Arago, all but himself, Daniel Prior and Richard Laughlin, were treacherously murdered by savages, losing all their traps and furs.

Isaac J. Sparks, afterward of San Luis Obispo, Cal., was one of the J. D. Smith party. He came again with a party as late as 1832, and from the Black Water they proceeded to the Gila River, which they followed till they came near the line of the Yuma. Here Job Dye, later of Santa Cruz, Cal., Isaac Williams, Turkey Green, and Squire Green, being in advance of the party, fell upon a band of Indians who were on their way to Sonora for the purpose of stealing horses. A skirmish took place, which lasted about an hour and a half. The Indians threw up a fort of brushwood, and nobly stood their ground, until the remainder of the whites came up, who, in company with the others, made a deadly charge and put them to flight. Of the Indians there were killed or wounded fourteen or fifteen.

This party resorted to various expedients at times to outwit the Indians. The principal part of the company would leave the camp, thus leading the Indians to think that all had gone, when, in fact, there were six or eight concealed within, where they would remain perfectly quiet until the Indians got fairly into camp, when, upon a certain signal, they discharged their firearms, whose deadly and unerring aim would send the Indians to their last account.

The day succeeding the skirmish just mentioned, they journeyed on to the Yuma Village, where they traded for beans, corn, etc., and thence proceeded to the Rio Colorado, or Red River. Here the party separated, and Mr. Sparks, with eleven others, went through to California, and arrived at the Pueblo de Los Angeles on the 10th of February, 1832.

In 1844 a party of forty-eight men, hunters, trappers, prospectors, explorers and adventurers, among whom was Francois de von Cœur, who later accompanied Lieut. Emory on his expedition across Arizona, entered the Territory and went down the San Francisco River to the Salt. They encountered hostile Apaches the whole way, were fired upon repeatedly, lost one of their number, and had great difficulty in saving their mules. Little of importance resulted from this expedition.

In 1848 a company from New Orleans, among whom was Dr. O. M. Wosencraft, went through Texas and New Mexico, and into the southern part of Arizona. They encountered some opposition from the Indians, but at last reached Mariposas Plains, and on the Colorado River found a rawhide boat, in which they crossed the river. In 1850 Capt. Joseph Walker, with a body of men, explored that portion of Arizona, then inhabited by the Moqui Indians, and gave a description of that people and their mode of life, and also described many ancient ruins found by him between the Gila and the San Juan rivers. At this time there was a very large immigration from "the States" to California, gold having been discovered there in 1849. It is said that in 1850 and 1851 no less than 60,000 immigrants to California crossed the Colorado River at Yuma on the ferry established by Dr. Lincoln and others in 1849.

In 1850-1, a reconnaissance, under Lieut. Derby, was made up the Colorado River, under the direction of the military department of the Pacific, for the purpose of discovering a route of supply other than overland for Fort Yuma. They journeyed up the east bank of the river, making many new and important discoveries, meeting the Yumas and Mojaves, and finding them quiet and friendly. On the return, however, they were hostile, obstacles were thrown in the way of the explorers, and a number of lives were lost. A rather unfavorable report concerning the navigability of the river was made by Lieut. Derby.

In 1850, John Gallantin and his band of followers were murdered by the Yuma Indians. It is said that the governor of Chihuahua having offered a premium of \$30 for every Apache scalp, Gallantin got together a band of cutthroats and went into the business. But all his

activity and cupidity failed to find the Apaches, and scalps became very scarce. Determined to make money out of the governor's terms, he commenced killing Papago, Opatah and Yaqui Indians, whose scalps he sold in considerable numbers at \$30 each, declaring that they had been taken from the heads of Apaches. But the ease with which Gallantin and his band supplied themselves, without producing any sensible diminution of Apache raids, excited suspicion, and he was actually caught taking the scalps from the heads of several Mexicans murdered by his people in cold blood. Finding that he had been discovered in his unspeakable villainies, he fled to New Mexico, where, by stealing and by purchase, he collected about 2,500 head of sheep, with which he was passing into California, when he encountered his well-merited fate at the hands of the Yumas. Not a soul of his band escaped death.

There were of the party a band of twenty-one Americans, with a great many sheep which they were driving to California. The military, consisting of a sergeant and ten men, had been driven off by the Yumas just before the advent of these visitors, who were wholly ignorant of the fact, and quite unprepared to expect the hostility which terminated with their massacre. They were received by the Yumas with every profession of friendship, the Indians bringing in large quantities of slim, straight and dried cottonwood branches to build fires with, and rendering them other kindly services, so that all apprehension was completely lulled. While the evening meal was in preparation, the Yumas interspersed themselves thickly among the Americans, who had some four fires going, built by the Yumas, who had placed the long, smooth cottonwood branches across each other, in every direction, and the fire as near to the center as possible. So soon as those sticks had burned through so as to leave an effective club at each end, a single sharp cry gave the signal, upon which each Yuma present, probably a hundred, seized his burning brand, and commenced the work of death, dealing blows to the nearest American, while another large party rushed fully armed upon the scene, and quickly dispatched their unprepared and unsuspecting visitors. The Americans fought with desperation, discharging their six-shooters and using their

knives with bloody effect, but were soon overcome by resistless numbers, and slain to a man. It is said that Pasqual, the Yuma chief, was in command of the Indians who accomplished this massacre.

In 1851-2, Lieut. Sitgreaves, at the head of a body of men, consisting of geologists, entomologists, engineers, hunters, trappers and soldiers, all under the direction of the Government of the United States, surveyed a route for a probable railroad across Northern Arizona, nearly on the present line of the Atlantic & Pacific Railroad. The country was thoroughly explored, and by his report Lieut. Sitgreaves proved conclusively the practicability of such a road. His corps of scientists added many important facts concerning Northern Arizona to the physical description of the Rocky Mountain region.

In 1854, Lieut. A. W. Whipple, with a company of nearly one hundred explorers, surveyed a route for a railroad across Arizona. They entered the Territory from the east, coming from the Zuni villages, and first encountered the Moqui Indians near and on the Little Colorado and its branches. While here he learned of a country to the south and east which was known as the "Golden Bullet Country." Reference was made to a band of the Apaches which had genuine golden bullets, made, no doubt, from gold obtained from captive white miners, explorers or emigrants. The party moved on westward and reached the country of the Mojaves, on the Colorado. His route was over nearly the same country traversed by Capt. Sitgreaves two years earlier, and his survey proved the practicability of a railway across what is now Arizona. In fact, the Atchison, Topeka & Santa Fe Railroad now extends nearly along the line of this survey.

In 1854 Lieut. Andrew B. Gray surveyed a railway route from El Paso to Tubac, thence to Fort Yuma, and thence to San Diego. This same year, also, Lieut. Williamson surveyed the country east and west across Arizona north of the Gila. Both Gray and Williamson found practicable routes for railways. In 1855 Charles D. Poston and Herman Ehrenberg explored the country in Arizona south of the Gila, in search of rich mining districts. In 1855 Lieut. J. G. Parke surveyed a railway route from Fort Yuma to the Pima villages, thence to Tucson, and thence to El Paso. Lieut. E. F. Beale, a naval

officer, Capt. J. H. Simpson and Dr. John S. Newberry explored Northern Arizona under the direction of Congress, and their reports are valuable and similar to those of Bartlett and Emory. Other explorations and surveys were made by E. G. Beckwith, in 1849; Lieut. W. H. Bell, in 1858; Col. Canby, in 1860; King S. Woolsey, in 1864.

The filibustering expedition of Henry A. Crabb, in 1856, is well known to Arizonians. He was promised a large strip of territory in Sonora if he would bring a force of 1,000 men and help Pesqueira, a claimant for the governorship of that province, forcibly take the government from Gandara, the real governor of Sonora. As an excuse for this gift of territory to the Americans, it was to appear as a reward for assistance given the Sonorans by the Americans against the Apaches. Crabb raised his men in California and marched across Southern Arizona with one hundred as an advance guard; but, in the meantime, Pesqueira had ousted Gandara, and had no use for Crabb and his party and, hence, repudiated his contract with the latter and, in order to prove his loyalty to the Mexican government, which had been placed in doubt, denied his agreement with Crabb, denounced his invasion of Mexican soil, and besieged him at Caborca, and finally forced him to surrender unconditionally, and immediately butchered his whole party, sending the head of Crabb to the City of Mexico as an evidence of his (Pesqueira's) loyalty. The other 900 of Crabb's party, learning of his fate, disbanded. However, a party of twenty-seven Americans left Tucson for his relief, but arrived too late and had to fight their way back against a largely superior force. Charles Tozer and Grant Ourey were of this party. Tozer, an able and prominent man, afterward denied that the expedition of Crabb was filibustering in its nature, and declared that it was strictly in conformity to the Mexican colonization laws. This is probably correct. No doubt the Mexicans betrayed the Americans, who had been invited to colonize a tract of land in Sonora.

It was not until 1857 that an appropriation became available for further exploration. A small steamer was constructed in New York, for the purpose of ascending the river, and shipped to San Francisco in parts, and thence

reshipped to Fort Yuma, where it was put together. It was an iron steamer, fifty feet long. When loaded, it drew somewhat less than two feet of water, and the river was ascended four hundred and fifty miles above Fort Yuma. Sometimes the little craft was nearly overwhelmed in the treacherous currents, and sometimes the men were obliged to tow the steamer over shoals where it would touch bottom continually. Bands of natives would follow the boat, hugely amused with the puffing, snorting canoe that was, apparently, so helpless and good for nothing. This expedition was under the command of Lieut. Ives. The boat was named "Explorer," and ascended the river to the cañon. It was accompanied by a land expedition, which thoroughly examined and described the country.

It is said that the first steamer to run up the Colorado to Fort Yuma was the "Uncle Sam" in 1852. It was owned and commanded by Capt. Turnbull, and continued to carry supplies to the fort until June, 1853, when it ran aground below the post and was left there. In January, 1854, the "General Jessup," a sixty-ton sidewheeler, ran up to Fort Yuma.

In 1858, Lieut. Joseph C. Ives, with a large party, among whom was the eminent geologist, Dr. J. S. Newberry, thoroughly surveyed the plateau region of Northern Arizona. The description of the natural features and resources of the country, published as the result of this expedition or exploration, contributed materially to the knowledge of what is now Arizona.

In the decade of the '50's Prof. Raphael Pumpelly and party thoroughly explored the resources of the Gila and its tributaries, and gave to the world much valuable information concerning Arizona. Prof. Marcou, geologist, accompanied Lieut. Whipple in 1853-4. In the exploration of the Upper Colorado late in the decade of the '50's, Dr. Newberry, the geologist, accompanied Capt. Macomb. The old trapper, hunter and scout, Leroux, declared that Caiabasa, in Pima County, was a thriving Mexican settlement in 1830. Henry Wickenburg made many important discoveries in the '50's and '60's. Frederick Bruncknow deserves mention for his explorations in 1860, and at other times. During the Civil War, particularly after the arrival of the California Volunteers, and their subjection of the Indians, the settlers began to come in, and

soon every part of the Territory was invaded by the resolute pioneers. After the war, indeed even down to the present time, important investigations were made, and the resources of the country fully shown up.

In 1868, Maj. J. W. Powell and a small company passed across Northern Arizona, exploring and investigating as they went. They visited the Grand Cañon of the Colorado, and Powell's description of this wonder attracted wide attention. His report was one of the first which described the cañon in detail. His perilous trip down the gorge was daring in the extreme.

One of the most important expeditions in recent years was that of Lieut. Wheeler, extending from 1871 to 1875. Many prominent scientists, among whom were Gilbert, the geologist, and Dr. Rothrock, were with him. In 1875 Wheeler thoroughly explored the southeastern part of the Territory.

*The Miner expedition originated in Nevada and was under the direction of a guide named Miner. In May, 1871, the company advanced from Prescott to Phoenix, intending to rendezvous at Old Fort Grant. At the time of leaving Prescott the company numbered about thirty men. At Phoenix others joined them, and so perhaps did a squad at Florence. In fact, all along the line of march men were picked up to swell the size of the company. One squad, in particular, from Tucson, joined them at Old Fort Grant, where all were regularly organized into a company. Besides these there were two companies of Mexicans from Sonora and Tucson. When they left Old Camp Grant they numbered, all told, 267 men, divided into about five companies. They marched across from Old Camp Grant, on the San Pedro, to the mouth of the San Carlos on the Gila, thence up the San Carlos to its head, and thence to Salt River, where they prospected for a few days. They then marched

to the Tonto Basin, and thence to the mouth of Cherry Creek, where they camped for some time, and then moved to the Sierra Ancho mountains, over which they prospected and hunted without finding paying traces of either gold or silver. They finally returned to Cherry Creek Valley, thence down to Salt River, thence across the same to the "wheatfields," and thence to Pinto Creek, where the companies separated, the Prescott company returning to the starting place, crossing the Mogollon mountains on the way, and passing via Camp Verde.

Governor Safford commanded the party from Tucson, and previously had been elected commander-in-chief of Old Fort Grant. After the return of his party the story went the rounds that on their way back his men had discovered the "Silver King."

At the head of the party from Prescott were Ed. Peck, commander, and discoverer of Peck's mine, Robert W. Groom, Al. Sieber of Globe, Willard Rice, Dan O'Leary and others.

The expedition was undertaken in consequence of a story told by the guide, Miner, who claimed that while out in that unexplored region with a party, one of them, from a shovelful of earth panned seventeen ounces of gold. He said he could lead a party to the spot, but failed to do so, and his story has since been regarded as false or visionary. Anyway, this expedition was the largest ever projected in Arizona for the purpose of searching for gold and silver. Miner left the country, probably owing to the ridicule cast upon him by members of the expedition, and was only once afterward heard of up in the Mojave country, where probably his stories carried greater weight. Robert W. Groom, of the expedition, has been a prospector in Arizona since 1863—largely between Prescott and Phoenix, in the vicinity of the Bradshaws. He discovered the Sterling mine, near Prescott, and sold out, getting one-fourth of \$41,000. Generally, however, he has found little of value.

*By Col. R. W. Groom.



CHAPTER IX.

MILITARY RECONNAISSANCES AND EXPEDITIONS—GENERAL KEARNEY'S MOVEMENT AGAINST SONORA AND NEW MEXICO—LIEUT. EMORY'S REPORT—CONCENTRATION OF THE "ARMY OF THE WEST"—NAMES OF THE OFFICERS—DESCRIPTION OF THE COUNTRY ON THE ROUTE OF THE ARMY—INCIDENTS OF GREAT HISTORIC INTEREST—LOCATION OF THE CAMPS OF THE TROOPS—MOVEMENT OF COL. COOKE'S MORMON BATTALION—EVACUATION OF TUCSON BY THE MEXICANS AND ITS OCCUPATION BY THE AMERICANS—COWARDICE OF THE "GREASERS"—LIEUT. JOHNSTON'S MOVEMENT ALONG THE GILA—THE FAMOUS KIT CARSON—DEALINGS WITH THE INDIANS—ANEC-
DOTES—BATTLE OF SAN PASQUAL—DEATH OF JOHNSTON.

In the month of June, 1846, Lieut. W. H. Emory, of the corps of Topographical Engineers at Washington, D. C., was ordered to report to Col. S. W. Kearney,* of the First Dragoons, at Fort Leavenworth, Kansas, for the purpose of participating in the movement of the "Army of the West" against the northern provinces of Mexico, New Mexico (including Arizona), and California. Anticipating that the route of the army would lie through unexplored regions, Lieut. Emory was directed to supply himself with the necessary instruments and conveniences to make such an exploration, and, having done so, left Washington June 6, and in due time reported at Fort Leavenworth. On the trip, as far as Santa Fe, he was assisted by Lieuts. J. W. Abert and G. W. Peck, but, after that point had been passed, by Lieut. W. H. Warner and Mr. Norman Bestor.

The military force under Col. Kearney, destined for the conquest of New Mexico, California, etc., consisted of two batteries of artillery (six-pounders) under Maj. Clark; three squadrons of the First Dragoons, under Maj. Sumner; the First Regiment of Missouri Cavalry, under Col. Doniphan, and two companies of infantry under Capt. Agney. This force was detached in different sections, from Fort Leavenworth, and was con-

centrated on August 1 in camp nine miles below Bent's Fort.* It marched under great hardships, but without any serious opposition from either the Indians or the Mexicans, under Gov. Armijo, and on August 18 reached and took possession of Santa Fe. Here the "Army of the West" was divided into three columns, the one destined for New Mexico, Arizona, California, etc., under (now) Gen. Kearney, and consisting of 300 United States Dragoons, under Col. Sumner, and 500 Mormons on foot, receiving orders to march on September 25, 1846.

Lieut. Emory's party was organized with the following men: J. M. Stanley, draftsman; James Early, driver to instrument wagon; W. H. Peterson, in charge of horizon box and cantina for sextants; Baptiste Perrot, driver of transportation wagon; Maurice Longdeau, in charge of spare mules; Francois de Von Cœur, in charge of spare mules; Frank Ménard, assistant teamster; James Riley, assistant to Bestor; Dabney Eustis, assistant to Stanley, and the private servants of Lieuts. Emory and Warner.

It is with the command of Gen. Kearney that we now have to deal, as it was the one which crossed Arizona. All that part of Lieut. Emory's report affecting Arizona we will now quote, preserving his own spelling of proper names, etc.:

*A little later appointed Brigadier General, U. S. A.

*Near Fort Lyon, Colorado.



M. J. Hickey

"October 25.—We were now in the regions made famous in olden times by the fables of Friar Marcos, and eagerly did we ascend every mound, expecting to see in the distance what I fear is but the fabulous 'Casa Montezuma.' Once, as we turned a sharp hill, the bold outline of a castle presented itself, with the tops of the walls horizontal, the corners vertical, and apparently one front bastioned. My companion agreed with me that we at last beheld this famed building; on we spurred our unwilling brutes; restless for the show, I drew out my telescope, when, to my disappointment, a clay butte, with regular horizontal seams, stood in the place of our castle; but to the naked eye the delusion was complete. It is not impossible that this very butte, which stands on an imposing height in the center of a vast amphitheater of turreted hills, has been taken by the trappers, willing to see, and more especially to report marvelous things, for the 'Casa Montezuma.' The Indians here do not know the name Aztec. Montezuma is the outward point in their chronology; and, as he is supposed to have lived and reigned for all time preceding his disappearance, so do they speak of every event preceding the Spanish conquest as of the days of Montezuma.

"The name, at this moment, is as familiar to every Indian, Puebla, Apache and Navajo, as that of our Saviour or Washington is to us. In the person of Montezuma, they unite both qualities of divinity and patriot.

"We passed to-day the ruins of two more villages similar to those of yesterday. The foundation of the largest house seen yesterday was 60 by 20 feet; to-day, 40 by 30. About none did we find any vestiges of the mechanical arts, except the pottery; the stone forming the supposed foundation was round and unhewn, and some cedar logs were also found about the houses, much decayed, bearing no mark of an edged tool. Except these ruins, of which not one stone remained upon another, no marks of human hands or footstep have been visible for many days, until to-day we came upon a place where there had been an extensive fire. Following the course of this fire, as it bared the ground of the shrubbery, and exposed the soil, etc., to view, I found what was to us a very great vegetable curiosity, a cactus, 18 inches high, and 18 inches in its greatest diameter, containing 20 vertical volutes,

armed with strong spines. When the traveler is parched with thirst, one of these, split open, will give sufficient liquid to afford relief. Several of these cacti were found nearly torn from the earth, and lying in the dry bed of a stream.

"These and the mezquite, acacia, *prosopis odorata*, and *prosopis glandulosa*, now form the principal growth. Under the name mezquite, the *voyageur* comprises all the acacia and *prosopis* family.

"Last night, about nine o'clock, I heard the yell of a wolf, resembling that of a four months' old pup. In a few minutes there was a noise like distant thunder. 'Stampede!' shouted a fellow, and in an instant every man was amongst the mules. With one rush they had broken every rope; and this morning, when we started, one of our mules was missing, which gave us infinite annoyance. Our party is so economically provided that we could not afford to lose even a mule, and I left four men to look it up, who did not rejoin us till night.

"A question arose involving a serious point of mountain law, which differs somewhat from prairie law. One of my party captured a beautiful dun colored mule, which was claimed by another party; the one claiming the prize for having first seen the animal and then catching it with the lazo. The other pleaded ownership of the rope, used as a lazo, as its title. It was settled to the satisfaction of the first.

"The mule was one which Carson* had left on his way out, and on being asked why he did not claim it, he said it was too young to be useful in packing, and as we now had plenty of beef, it would not be required for food, and he did not care about it.

"October 26.—Soon after leaving camp, the banks of the river became gullied on each side by deep and impassable arroyos (small streams). This drove us insensibly to the mountains, until at length we found ourselves some thousand feet above the river, and it was not until we had made sixteen miles that we again descended to it. This distance occupied eight and a half hours of incessant toil to the men, and misery to our best mules. Some did not reach camp at all, and when day dawned one or two, who had lost their way, were seen on the side of the moun-

*This was the famous "Kit Carson," guide of the expedition.

tain, within a few steps of a high precipice, from which it required some skill to extricate them. The men named this pass "the Devil's turn-pike," and I see no reason to change it. The whole way was a succession of steep ascents and descents, paved with sharp, angular fragments of basalt and trap. The metallic clink of spurs, and the rattling of the mule shoes, the high black peaks, the deep, dark ravines, and the unearthly looking cactus, which stuck out from the rocks like the ears of Mephistopheles, all favored the idea that we were now treading on the verge of the regions below. Occasionally a mule gave up the ghost, and was left as a propitiary tribute to the place. This day's journey cost us some twelve or fifteen mules; one of mine fell headlong down a precipice, and, to the surprise of all, survived the fall.

"The barometric height was taken several times to-day. Long and anxious was my study of these mountains, to ascertain something of their general direction and form. Those on the north side swept in something like a regular curve from our camp of last night to the mouth of the San Carlos, deeply indented in two places by the ingress into the Gila of the Prierte (Black) and Azul (Blue) rivers. Those on the south, where we passed, were a confused mass of basalt and trap, and I could give no direction to the axis of maximum elevation. They seemed to drift off to the southeast. Wherever the eye wandered, huge mountains were seen of black, volcanic appearance, of very compact argillaceous limestone, tinged at times with scarlet from the quantities of red feldspar. Through these the Gila (now swift) has cut its narrow way with infinite labor, assisted by the influx of the Prierte, the Azul and San Carlos rivers. As the story goes, the Prierte flows down from the mountains, freighted with gold. Its sands are said to be full of this precious metal. A few adventurers, who ascended this river hunting beaver, washed the sands at night when they halted, and were richly rewarded for their trouble. Tempted by their success, they made a second trip, and were attacked and most of them killed by the Indians. My authority for this statement is Londeau, who, though an illiterate man, is truthful.

"October 27.—After yesterday's work we were obliged to lay by to-day. The howitzers came up late in the afternoon. They are small,

mounted on wheels ten feet in circumference, which stand apart about three feet, and with the assistance of men on foot, are able to go in almost any place a mule can go.

"I strolled a mile or two up the San Carlos, and found the whole distance, it has its way in a narrow cañon, worn from the solid basalt. On either side, in the limestone under the basalt, were immense cavities, which must have been at times the abodes of Indians and the dens of beasts. The remains of fire and the bones of animals attested this. Near its mouth we found the foundation of a rectangular house, and on a mound adjacent that of a circular building, a few feet in diameter. The ruin was probably that of a shepherd's house, with a circular building adjoining as a lookout, as there was no ground in the neighborhood which was suited for irrigation. Both these ruins were of round, unhewn stones, and the first was surrounded by pieces of broken pottery. Digging a few feet brought us to a solid mass, which was most likely a dirt floor, such as is now used by the Spaniards.

"In my walk I encountered a settlement of tarantulas; as I approached, four or five rushed to the front of their little caves in an attitude of defense. I threw a pebble at them, and it would be hard to imagine, concentrated in so small a space, so much expression of defiance, rage, and ability to do mischief, as the tarantula presents.

"Our camp was near an old Apache camp. The carcasses of cattle in every direction betokened it to have been the scene of a festival after one of their forays into the Spanish territory.

"The Gila at this place is much swollen by the affluence of the three streams just mentioned, and its cross section here is about 70 feet by 4. The waters change their color, and are slightly tainted with salt; indeed, just below our camp there came from the side of an impending mountain, a spring so highly charged with salt as to be altogether unpalatable. Several exquisite ferns were plucked at the spring, and a new green-barked acacia, covering the plains above the river bed, but vegetation generally was very scarce; this is the first camp since leaving the Del Norte, in which we have not had good grass.

"October 28.—One or two miles' ride, and we were clear of the Black mountains, and again in the valley of the Gila, which widened out gradually to the base of Mount Graham, abreast of

which we encamped. Almost for the whole distance, twenty miles, were found at intervals the remains of houses like those before described. Just before reaching the base of Mount Graham, a wide valley, smooth and level, comes in from the southeast. Up this valley are trails leading to San Bernardino, Fronteras and Tucson. Here, also, the trail by the Ojo Cavallo comes in, turning the southern abutments of the Black mountains, along which Capt. Cook is to come with his wagons.

"At the junction of this valley with the Gila are the ruins of a large settlement. I found traces of a circular wall 270 feet in circumference. Here, also, was one circular inclosure of 400 yards. This must have been for defense. In one segment was a triangular shaped indenture, which we supposed to be a well. Large mezquite now grow in it, attesting its antiquity. Most of the houses are rectangular, varying from 20 to 100 feet front; many were of the form of the present Spanish houses.

"Red cedar posts were found in many places, which seemed to detract from their antiquity, but for the peculiarity of this climate, where vegetable matter seems never to decay. In vain did we search for some remnant which would enable us to connect the inhabitants of these long deserted buildings with other races. No mark of an edge tool could be found, and no remnant of any household or family utensils, except the fragments of pottery which were everywhere strewed on the plain, and the rude corn grinder still used by the Indians. So great was the quantity of this pottery, and the extent of ground covered by it, that I have formed the idea it must have been used for pipes to convey water. There were about the ruins quantities of the fragments of agate and obsidian, the stone described by Prescott as that used by the Aztecs to cut out the hearts of their victims. This valley was evidently once the abode of busy, hard-working people. Who were they? And where have they gone? Tradition among the Indians and Spaniards does not reach them.

"I do not think it improbable that these ruins may be those of comparatively modern Indians, for Venegas says: 'The father Jacob Sedelmayer, in October, 1744, set out from his mission (Tubutama), and, after traveling 80 leagues, reached the Gila, where he found six thousand Papagos,

and near the same number of Pimos and Coco Maricopas;' and the map which he gives of this country, although very incorrect, represents many Indian settlements and missions on this river. His observations, however, were confined to that part of the Gila River near its mouth.

"Great quantities of green-barked acacia on the table-lands, and also the chamiza, wild sage and mezquite; close to the river, cottonwood and willow. We found, too, among many other plants, the *eriodictyon Californicum* several new grasses, and a sedge, very few of which have been seen on our journey.

"We saw the trail of cannon up the valley very distinct; that of an expedition from Sonora against the Indians, which was made a few years since, without achieving any results. Wherever the river made incisions, was discoverable a metamorphic, close-grained, laminated sandstone, and in many places were seen buttes of vitrified quartz (semi-opal).

"October 29.—The dust was knee-deep in the rear of our trail; the soil appeared good, but, for whole acres, not the sign of vegetation was to be seen. Grass was at long intervals, and, when found, burned to cinder. A subterranean stream flowed at the foot of Mount Graham, and fringed its base with evergreen. Everywhere there were marks of flowing water, yet vegetation was so scarce and crisp that it would be difficult to imagine a drop of water had fallen since last winter. The whole plain, from three to six miles wide, is within the level of the waters of the Gila, and might easily be irrigated, as it no doubt was by the former tenants of these ruined houses.

"The crimson tinted Sierra Carlos skirted the river on the north side the whole day, and its changing profiles formed subjects of study and amusement. Sometimes we could trace a Gothic steeple; then a horse; now an old woman's face; and, again, a veritable steamboat; but this required the assistance of a light smoky cloud, drifting to the east, over what represented the chimney stack. Wherever the river abraded its banks, was seen, in horizontal strata, a yellowish argillaceous limestone.

"October 30.—Mount Turnbull, terminating in a sharp cone, had been in view down the valley of the river for three days. To-day, about three o'clock p. m., we turned its base, forming

the northern terminus of the same chain, in which is Mount Graham.

"Half a mile from our camp of last night was another very large ruin, which appeared, as well as I could judge (my view being obstructed by the thick growth of mezquite), to have been the abode of five or ten thousand souls. The outline of the buildings and the pottery presented no essential difference from those already described. But about eleven miles from the camp, on a knoll, overlooked in a measure by a tongue of land, I found the trace of a solitary house, somewhat resembling that of a field work *en cremallière*. The inclosure was complete, and the faces varied from ten to thirty feet.

"Clouds had been seen hovering over the head of Mount Turnbull; and, as we passed, the beds of the arroyos leading from it were found to be damp, showing the marks of recent running water.

"Last evening about dusk, one of my men discovered a drove of wild hogs, and this morning we started on their trail, but horseflesh had now become so precious that we could not afford to follow any distance from our direction, and, although anxious to get a genuine specimen of this animal, we gave up the chase and dropped in the rear of the column. The average weight of these animals is about 100 pounds, and their color invariably light pepper and salt. Their flesh is said to be palatable, if the musk which lies near the back part of the spine is carefully removed.

"Many 'fresh signs' of Indians were seen, but, as on previous days, we could not catch a glimpse of them. They carefully avoided us. This evening, however, as Robideaux, unarmed, was riding in advance, he emerged suddenly from a cavity in the ground, thickly masked by mezquite. He had discovered two Indians on horseback within twenty yards of him. The interview was awkward to both parties, but Robideaux was soon relieved by the arrival of the head of our column. The Indians were thrown into the greatest consternation; they were tolerably mounted, but escape was hopeless. Two more miserable looking objects I never beheld; their legs (unlike the Apaches we left behind) were large and muscular, but their faces and bodies (for they were naked) were one mass of wrinkles, almost approaching to scales. They were armed

with bows and arrows, and one with a quiver of fresh cut reeds. Neither could speak Spanish, and the communication was by signs. They were directed to go with us to camp, where they would receive food and clothing; but they resolutely refused, evidently thinking certain death awaited them, and that it would be preferable to meet it then than suffer suspense. The chief person talked all the time in a tongue resembling more the bark of a mastiff, than the words of a human being. Our anxiety to communicate to the tribe our friendly feeling, and more especially our desire to purchase mules, was very great; but they were firm in their purpose not to follow, and much to their surprise (they seemed incapable of expressing joy), we left them and their horses untouched.

"They were supposed by some to be the Cayotes, a branch of the Apaches, but Londeau thought they belonged to the tribe of Tremblers, who acquired their name from their emotions at meeting the whites.

"October 31.—To-day we were doomed to another sad disappointment. Reaching the San Francisco about noon, we unsaddled to refresh our horses and allow time to look up a trail by which we could pass the formidable range of mountains through which the Gila cut its way, making a deep cañon impassable for the howitzers. A yell on the top of a distant hill announced the presence of three well-mounted Indians, and persons were sent out to bring them in. Our mules were now fast failing, and the road before us unknown. These Indians, if willing, could supply us with mules and show us the road. Our anxiety to see the result of the interview was, consequently, very great. It was amusing, and at the same time very provoking. They would allow but one of our party to approach. Long was the talk by signs and gestures; at length they consented to come into camp, and moved forward about a hundred yards, when a new apprehension seemed to seize them, and they stopped. They said, as well as could be understood, that the two old men we met yesterday had informed their chief of our presence, and wish to obtain mules; that he was on his way with some, and had sent them ahead to sound a parley. They were better looking, and infinitely better conditioned, than those we met yesterday, resembling strongly the Apaches of the

copper mines, and, like, them, decked in the plundered garb of the Mexicans.

"The day passed, but no Indians came; treacherous themselves, they expect treachery in others. At everlasting war with the rest of mankind, they kill at sight all who fall in their power. The conduct of the Mexicans to them is equally bad, for they decoy and kill the Apaches whenever they can. The former governor of Sonora employed a bold and intrepid Irishman, named Kirker, to hunt the Apaches. He had in his employment whites and Delaware Indians, and was allowed, besides a per diem, \$100 per scalp, and \$25 for a prisoner. A story is also told of one Johnson, an Englishman, an Apache trader, who, allured by the reward, induced a number of these people to come to his camp, and placed a barrel of flour for them to help themselves; when the crowd was thickest, of men, women and children, he fired a six-pounder amongst them from a concealed place and killed great numbers.

"November 1.—No alternative seemed to offer but to pursue Carson's old trail sixty miles over a rough country, without water, and two, if not three, days' journey. Under this, in their shattered condition, our mules must sink. We followed the Gila River six or seven miles, when it became necessary to leave it, how long was uncertain. Giving our animals a bite of the luxurious grama on the river banks, we filled every vessel capable of holding water, and commenced the jornada. The ascent was very rapid, the hills steep, and the footing insecure. After traveling five or six miles, ascending all the way, we found trails from various directions converging in front of us, evidently leading to a village or a spring; it proved to be the last. The spring consisted of a few deep holes, filled with delicious water, overgrown with cottonwood; and, although the grass was not good, we determined to halt for the night, as the howitzers were not yet up, and it was doubtful when we should meet with water again. I took advantage of the early halt to ascend, with the barometer, a very high peak overhanging the camp, which I took to be the loftiest in the Piñon Lano range on the north side of the Gila.

"Its approximate height was only 5,724 feet above the sea. The view was very extensive; rugged mountains bounded the entire horizon. Very far to the northeast was a chain of moun-

tains covered with snow, but I could not decide whether it was the range on the east side of the Del Norte or the Sierra Mimbres. Near the top of this peak the mezcal grew in abundance, and with the stalk of one twenty-five feet long we erected a flagstaff. Here, too, we found huge masses of the conglomerate before described, apparently as if it had been arrested in rolling from an impending height, but there was no point higher than this for many miles, and the intervening ravines were deep. Lower down we found a large mass of many thousand tons of the finer conglomerate, the shape of a truncated pyramid standing on its smallest base. It appeared so nicely balanced, a feather might have overthrown it. A well-leveled seat of large slabs of red ferruginous sandstone altered by heat indicated we were not on untrodden ground. It was the watch-tower of the Apache; from it he could track the valley of the Gila beyond the base of Mount Graham.

"At the point where we left the Gila, there stands a cactus six feet in circumference, and so high I could not reach half-way to the top of it with the point of my sabre by many feet; and a short distance up the ravine is a grove of these or *pitahaya*, much larger than the one I measured, and with large branches. These plants bear a saccharine fruit much prized by the Indians and Mexicans. 'They are without leaves, the fruit growing to the boughs. The fruit resembles the burr of a chestnut and is full of prickles, but the pulp resembles that of the fig, only more soft and luscious.' In some it is white, in some red, and in others yellow, but always of exquisite taste.

"A new shrub, bearing a delicious, nutritious nut, and in sufficient abundance to form an article of food for the Apaches. Mezcal and the fruit of the *agave Americana*, and for the first time *arctostaphylos pungens*. Two or three new shrubs and flowers.

"The formation near the mouth of the San Francisco is diluvion, overlaying a coarse-grained, highly calcareous sandstone and limestone. The mountains were chiefly of granite with red feldspar, and near our camp was discernible a stratum of very compact argillaceous limestone, dipping nearly vertically to the west.

"November 2.—The call to water sounded long before daylight, and we ate breakfast by the light

of the moon; the thermometer at 25 deg. As day dawned we looked anxiously for the howitzers, which were beginning to impede our progress very much. My camp was pitched on the opposite side of a ravine some distance apart from the main camp, the horses were grazing on the hillside still beyond and out of sight. We were quietly waiting for further orders, when our two Mexican herdsmen came running into camp much alarmed and without their arms, exclaiming: 'The Indians are driving off the mules.' 'To arms' was shouted, and before I could loosen a pistol from the holster my little party were in full run to the scene of alarm, each with his rifle. On turning the hill we found the horses tranquilly grazing, but the hill overlooking them was lined with horsemen. As we advanced, one of the number hailed us in Spanish, saying he wished to have 'a talk.'

"They were Apaches, and it had been for some time our earnest desire to trade with them, and hitherto we had been unsuccessful. 'One of you put down your rifle and come to us,' said the Spanish-tongued Indian. Londeau,* my employe before mentioned, immediately complied, I followed; but before reaching half-way up the steep hill, the Indian espied in my jacket the handle of a large horse pistol. He told me I must put down my pistol before he would meet me. I threw it aside and proceeded to the top of the hill, where, although he was mounted and surrounded by six or eight of his own men, armed with rifles and arrows, he received me with great agitation. The talk was long and tedious. I exhausted every argument to induce him to come into camp. His principal fear seemed to be the howitzers, which recalled at once to my mind the story I had heard of the massacre by Johnson. At last a bold young fellow, tired of the parley, threw down his rifle, and with a step that Forrest in *Metamora* might have envied, strode off toward camp, piloted by ("Kit") Carson. We were about to follow when the chief informed us it would be more agreeable to him if we remained until his warrior returned.

"The ice was now broken, most of them seeing that their comrade encountered no danger, followed one by one. They said they belonged to the tribe of Piñon Lanos; that 'they were simple in head, but true of heart.' Presents were

* Maurice Londeau, who had charge of the spare mules.

distributed; they promised a guide to pilot us over the mountain, five miles distant, to a spring with plenty of good grass, where they engaged to meet us next day with 100 mules.

"The mezcal flourishes here; and at intervals of half a mile or so we found several artificial craters, into which the Indians throw this fruit, with heated stones, to remove the sharp thorns and reduce it to its saccharine state.

"Observed last night for latitude and time, and our position is in latitude 33 deg. 14 min. 54 sec., longitude 110 deg. 45 min. 6 sec. Our camp was on the head of a creek which, after running in a faint stream one hundred yards, disappeared below the surface of the earth. On its margin grew a species of ash unknown in the United States, and the California plane tree, which is also distinct in species from our sycamore.

"November 3.—Our expectations were again disappointed; the Indians came, but only seven mules were the result of the day's labor, not a tenth of the number absolutely required.

"Our visitors to-day presented the same motley group we have always found the Apaches. Amongst them was a middle-aged woman, whose garrulity and interference in every trade was the annoyance of Maj. Swords, who had charge of the trading, but the amusement of the bystanders.

"She had on a gauze-like dress, trimmed with the richest and most costly Brussels lace, pilaged, no doubt, from some fandango-going belle of Sonora; she straddled a fine grey horse, and, whenever her blanket dropped from her shoulders, her tawny form could be seen through the transparent gauze. After she had sold her mule, she was anxious to sell her horse, and careered about to show his qualities. At one time she charged at full speed up a steep hill. In this, the fastenings of her dress broke, and her bare back was exposed to the crowd, who ungallantly raised a shout of laughter. Nothing daunted, she wheeled short round with surprising dexterity, and, seeing the mischief done, coolly slipped the dress from her arms and tucked it between her seat and the saddle. In this state of nudity she rode through camp, from fire to fire, until, at last, attaining the object of her ambition, a soldier's red flannel shirt, she made her adieu in that new costume.

"A boy about 12 years of age, of uncommon

beauty, was among our visitors. Happy, cheerful, and contented, he was consulted in every trade, and seemed an idol with the Apaches. It required little penetration to trace his origin from the same land as the gauze of the old woman. We tried to purchase him, but he said it was long, long, since he was captured, and that he had no desire to leave his master, who, he was certain, would not sell him for any money. All attempts were vain, and the lad seemed gratified both at the offer to purchase, and the refusal to sell. Here we found the mountains chiefly of red ferruginous sandstone, altered by heat.

"November 4.—Six miles from our camp of last night we reached a summit, and then commenced descending again rapidly toward the Gila, along a deeply cañoned valley, the sands of which were black with particles of oxide and peroxide of iron. Near the summit, the hills on each side were of old red sandstone, with strata sloping to the southwest at an angle of 25 degrees, and under this were strata of black slate and compact limestone, and then granite.

"In the ravines we found, at places, a luxuriant growth of sycamore, ash, cedar, pine, nutwood, mezcal, and some walnut, the edible nut again, Adam's needle, small evergreen oak and cottonwood, and a gourd, the *cucumis perennis*.

"There was every indication of water, but none was procured on the surface; it could, no doubt, have been found by digging, but the Gila was only twenty miles distant.

"The last six or eight miles of our route was down the dry bed of a stream, in a course east of south, and our day's journey did not gain much in the direction of California. It was necessary to ascend the river a mile in search of grass, and then we got but an indifferent supply. Except in the two camps nearest to Mount Turnbull, and the one at the San Carlos, we have never before, since leaving Santa Fé, had occasion to complain of the want of grass.

"We encamped in a grove of cacti of all kinds; amongst them the huge pitahaya, one of which was fifty feet high. Geological formation on this slope of the Piñon Lano mountains: first, conglomerate of sandstone and pebbles; then, red sandstone in layers a foot thick; then, granite very coarse. The depth of the two first was many hundred feet, and in some places its stratification much deranged. Many large masses

of sandstone, with thin seams of vitrified quartz.

"In the dry creek down which we traveled, we saw a cave of green sandstone, in which a fire had been built; for what purpose I cannot conjecture, as it was too small to admit a man. The Apaches gave us to understand that a marauding party of their people were in Sonora. The broad, fresh trail of cattle and horses leading up the arroyo, induces the belief that they have returned—successful, of course.

"Last night was mild, the thermometer at 63 deg. Fahrenheit; and, what was very unusual here, the heavens were overcast, which prevented my getting the rate of the chronometers. Although we have had no rain except at Mount Graham, where we had a shower which scarcely sufficed to lay the dust, yet the whole face of the country bears marks of rains, and running water met with in no other part of our journey. The absence of vegetation will, in some measure, account for the deep incisions made by running water in the earth.

"November 5.—The howitzers did not reach camp last night, yet, the grass was so bad, and our beds on the round pebbles everywhere covering the surface of the ground, so uncomfortable, it was determined to move camp.

"The Gila now presents an inhospitable look; the mountains of trap, granite and red sandstone, in irregular and confused strata, but generally dipping sharply to the south, cluster close together; and one ignorant of the ground could not tell from what direction the river came, or in what direction it flowed onward to its mouth. The valley, not more than 300 feet from base to base of these perpendicular mountains, is deep, and well-grown with willow, cottonwood and mezquite.

"At several places, perpendicular walls of trap dyke projected from the opposite side of the river, giving the idea that the river waters had once been dammed up, and then liberated by the blow of a giant; for the barrier was shattered—not worn away. In the course of six miles we had crossed and recrossed the river twice as many times, when we left it by turning abruptly up a dry ravine to the south. This we followed for three miles, and crossed a ridge at the base of Saddle-Back Mountain (so named from its resemblance to the outline of a saddle), and de-

scended by another dry creek to the San Pedro, running nearly north.

"The valley of this river is quite wide, and is covered with a dense growth of mezquite, (*acacia prosopis*), cottonwood, and willow, through which it is hard to move without being unhorsed. The whole appearance gave great promise, but a near approach exhibited the San Pedro, an insignificant stream a few yards wide, and only a foot deep.

"For six miles we followed the Gila. The pitahaya and every other variety of cactus flourished in great luxuriance. The pitahaya, tall, erect, and columnar in its appearance, grew in every crevice from the base to the top of the mountains, and in one place I saw it growing nearly to its full dimensions from a crevice not much broader than the back of my sabre. These extraordinary looking plants seem to seek the wildest and most unfrequented places.

"The range of mountains traversed to-day is the same we have been in for some days, and is a continuation of that of Mount Graham, which turns sharply westward from Turnbull's Peak, carrying with it the Gila.

"Saddle-Back is an isolated peak of red sandstone that has every appearance of having once formed the table-land, and being harder than the surrounding surface, having withstood the abrasion of water.

"The uplands covered as usual with mezquite, chamiza, ephydræ, the shrub with the edible nut, and cactus, of this a new and beautiful variety. In the cañon we heard in advance of us the crack of a rifle; on coming up we found that old Francisco, one of the guides, had killed a calf, left there, doubtless, by the Apaches.

"The dry creek by which we crossed to the San Pedro River was the great highway leading from the mountain fastnesses into the plains of Santa Cruz, Santa Anna, and Tucson, frontier towns of Sonora.* Along this valley was distinctly marked the same fresh trail, noted yesterday, of horses, cattle and mules.

"The bed of this creek was deeply cut, and turned at sharp angles, forming a zigzag like the bayoux laid by sappers in approaching a fortress, each turn of which (and they were innumerable) formed a strong defensive position. The Apache once in possession of them is

secure from pursuit or invasion from the Mexican.

"Since the 1st November, we have been traversing, with incredible labor and great expenditure of mule power, the stronghold of these mountain robbers, having no other object in view than making our distance westward; yet here we are at this camp, only five seconds of time west of camp 89, at Disappointment Creek, and one minute and four seconds west of our camp at the mouth of the San Francisco.

"Nature has done her utmost to favor a condition of things which has enabled a savage and uncivilized tribe, armed with the bow and lance, to hold as tributary powers three fertile and once flourishing states, Chihuahua, Sonora, and Durango, peopled by a Christian race, countrymen of the immortal Cortez. These states were at one time flourishing, but such has been the devastation and alarm spread by these children of the mountains, that they are now losing population, commerce and manufactures at a rate which, if not soon arrested, must leave them uninhabited.

"November 6.—For the double purpose of allowing the howitzers to come up, and to recruit our mules, it is decided this shall be a day of rest. The grama is good, but sparsely scattered over the hills, and it is necessary to loosen every animal and let them graze at will. We are yet 500 miles from the nearest settlement, and no one surveying our cavalry at this moment would form notions favorable to the success of the expedition.

"Except a few saddle mules, the private property of officers, which have been allowed to run loose, every animal in camp is covered with patches, scars and sores, made by the packs in the unequal motion caused by the ascent and descent of steep hills.

"The failure of the Apaches to bring in their mules was a serious disappointment, and entirely justifies the name given to the creek, where they agreed to meet us. Besides being the only means of transportation, they are, in extremity, to serve us as food, and the poor, suffering creatures before us, give no very agreeable impression of the soup which their meat will furnish. However grave the subject may appear, it is the common source of merriment. All seem to anticipate it as a matter of course, and the constant re-

* All south of the Gila River then belonged to Mexico.



JAMES REILLY.

currence of the mind to the idea, will no doubt accustom us to it, and make mule as acceptable as other soup.

"In the sandy arroyos where our fires burn, that look as if they had been formed but a year or two since, was broken pottery, and the remains of a large building, similar in form, substance and apparent antiquity, to those so often described. Strolling over the hills alone, in pursuit of seed and geological specimens, my thoughts went back to the States, and when I turned from my momentary aberrations, I was struck most forcibly with the fact that not one object in the whole view, animal, vegetable, or mineral, had anything in common with the products of any State in the Union, with the single exception of the cottonwood, which is found in the Western States, and seems to grow wherever water flows from the vertebral range of mountains of North America; this tree we found growing near the summit of the Piñon Lano range of mountains, indeed, always where a ravine had its origin.

"In one view could be seen clustered, the *larrea Mexicana*, the cactus, (king) cactus, (chandelier) green-wood acacia, *chamiza*, *prosopis odorata*, and a new variety of sedge, and the large open spaces of bare gravel.

"November 7.—About two miles from our camp the San Pedro joins the Gila just as the latter leaps from the mouth of the cañon. The place of meeting is a bottom three miles wide, seeming a continuation of that of the Gila.

"It is principally of deep dust and sand, overgrown with cottonwood, mezquite, chamiza, willow, and the black willow. In places there are long sweeps of large paving pebbles, filled up with driftwood, giving the appearance of having been overflowed by an impetuous torrent. The hills on both sides of the river, still high, but now farther off, and covered to the top with soil-producing the mezquite and pitahaya, as the day advanced, began to draw in closer, and before it closed, had again contracted the valley to a space little more than sufficient for the river to pass; and at halt, after making seventeen miles, we found ourselves encompassed by hills much diminished in height, but not in abruptness. The road, except the deep dust which occasionally gave way and lowered a mule to his knee, was good, that is, there were no hills to scale. The

river was crossed and recrossed four times. At 12 and 14 miles there were good patches of grama, burned quite yellow, but for most of the way, and at our camp, there was little or no grass, and our mules were turned loose to pick what they could of rushes and willow along the margin of the stream.

"Wherever the formation was exposed along the river, it was a conglomerate of sandstone, lime and pebbles, with deep caverns. Nearly opposite our camp of this date, and about one-third the distance up the hill, there crops out ore of copper and iron, easily worked, the carbonate of lime and calcareous spar. A continuation of the vein of ore was found on the side where we encamped, and a large knoll strewn with what the Spaniards call *guia*, the English of which is 'guide to gold.'

"The night has set in dark and stormy; the wind blows in gusts from the southwest, and the rain falling in good earnest, mingled with the rustling noise of the Gila, which has now become swift and impetuous, produces on us, who have so long been accustomed to a tranquil atmosphere quite the impress of a tempest. We have been so long without rain as to cease to expect or make provision against it, and the consequence is the greatest difficulty in getting the men to provide coverings for the destructible portion of our rations.

"Three Indians hailed us just before making camp, and after much parley were brought in. They feasted heartily, and promised to bring in mules. At first they denied having any; but after their appetites were satisfied, their hearts opened, and they sent the youngest of their party to their town, which was at the head of the dry creek of our camp, of the night before last. The fellow went on his way, as directed, till he met the howitzers, which so filled him with surprise and consternation, that he forgot his mission, and followed the guns to camp in mute wonder. These people are of the Piñon Lano (piñon wood) tribe, and we had been told by the Pinoleros (pinole eaters) that the chief of this band had mules.

"Flights of geese and myriads of the blue quail, and a flock of turkeys, from which we got one. The river bed, at the junction of the San Pedro, was seamed with tracks of deer and turkey, some signs of beaver, and one trail of wild hogs.

"Our camp was on a flat, sandy plain, of small extent, at the mouth of a dry creek, with deep washed banks, giving the appearance of containing at times a rapid and powerful stream, although no water was visible in the bed. At the junction, a clear, pure stream flowed from under the sand. From the many indications of gold and copper ore at this place, I have named it Mineral Creek; and, I doubt not, a few years will see flatboats descending the river from this point to its mouth, freighted with its precious ores.

"There was a great deal of pottery about our camp, and just above us were the supposed remains of a large Indian settlement, differing very slightly from those already described.

"November 8.—The whole day's journey was through a cañon, and the river was crossed twelve or fifteen times. The sand was deep, and occasionally the trail much obstructed by pebbles of paving stone. The willow grew so densely in many places as to stop our progress, and oblige us to look for spots less thickly overgrown, through which we could break.

"The precipices on each side were steep; the rock was mostly granite and a compact sandy limestone, with occasional seams of basalt and trap; and, toward the end of the day, calcareous sandstone, and a conglomerate of sandstone, feldspar, fragments of basalt, pebbles, etc. The stratification was very confused and irregular, sometimes perfectly vertical, but mostly dipping to the southwest, at an angle of 30 deg. Vast boulders of pure quartz; the river, in places, was paved with them.

"About two miles from camp, our course was traversed by a seam of yellowish colored igneous rock, shooting up into irregular spires and turrets, one or two thousand feet in height. It ran at right angles to the river, and extended to the north and to the south, in a chain of mountains as far as the eye could reach. One of these towers was capped with a substance, many hundred feet thick, disposed in horizontal strata of different colors, from deep red to light yellow. Partially disintegrated, and laying at the foot of the chain of spires, was a yellowish calcareous sandstone, altered by fire, in large amorphous masses.

"To the west, about a mile below us, and running parallel to the first, is another similar seam, cut through by the Gila, at a great butte, shaped

like a house. The top of this butte appears to have once formed the table-land, and is still covered with vegetation. Through both these barriers the river has been conducted by some other means than attrition. Where it passes the first, it presents the appearance of a vast wall torn down by blows of a trip hammer. Under to-day's date, in appendix No. 2, will be found many interesting plants, but the principal growth was, as usual, Pitahaya, acacia, prosopis, Fremontia, and obione canescens.

"At night, for the first time since leaving Pawnee Fork, I was interrupted for a moment in my observations, by moisture collecting on the glass of my horizon shade, showing a degree of humidity in the atmosphere not before existing. In the States there is scarcely a night where the moisture will not collect on the glass exposed to the air, sufficient in two or three minutes to prevent the perfect transmission of light.

"November 9.—The effect of last night's dampness was felt in the morning, for, although the thermometer was only 37 deg., the cold was more sensible than in the dry regions at 25 deg.

"We started in advance of the command to explore the lower belt of mountains by which we were encompassed. The first thing we noticed in the gorge was a promontory of pitchstone, against which the river impinged with fearful force, for it was now descending at a rapid rate. Mounting to the top of the rock, on a beautiful table, we found sunk six or eight perfectly symmetrical and well-turned holes, about ten inches deep and six or eight wide at top; near one, in a remote place, was a pitchstone, well turned and fashioned like a pestle. These could be nothing else than the corn mills of long extinct races. Above this bed of pitchstone, a butte of calcareous sandstone shot up to a great height, in the seams of which were imbedded beautiful crystals of quartz. Turning the sharp angle of the promontory, we discovered a high perpendicular cliff of calcareous spar and baked argillaceous rock, against which the river also abutted, seamed so as to represent distinctly the flames of a volcano. A sketch was made of it, and is presented with these notes. On the side of the river opposite the igneous rocks, the butte rose in perpendicular and confused masses.

"This chain continued, not parallel, as I sup-

posed, to the first described barrier, but circled round to the east, and united with it. It also united on the north side, forming a basin three or four miles in diameter, in which we encamped last night. Except a few tufts of *larrea Mexicana*, these hills were bare of vegetation. Away off to the south, and bordering on the banks of the river, covering the surface of the ground for one or two feet, was an incrustation of black cellular lava or basalt, like that seen about the Raton. Nothing more was wanted to give the idea of an immense extinct volcano. Through the center of the crater the Gila now pursues its rapid course.

"The Gila at this point, released from its mountain barrier, flows off quietly at the rate of three miles an hour into a wide plain, which extends south almost as far as the eye can reach. Upon this plain mezquite, chamiza, the green acacia, prosopis, artemisia, *obione canescens*, and pitahaya, were the only vegetation. In one spot only we found a few bunches of grass; more than four-fifths of the plain were destitute of vegetation; the soil, a light brown loose, sandy earth, I supposed contained something deleterious to vegetation.

"We made our noon halt at the grass patch. At this place were the remains of an immense Indian settlement; pottery was everywhere to be found, but the remains of the foundations of the houses were imbedded in dust. The outlines of the acequias, by which they irrigated the soil, were sometimes quite distinct.

"The soil was moist, and wherever the foot pressed the ground the salts of the earth effloresced, and gave it the appearance of being covered with frost. In this way the numberless tracks of horses and other animals, which had at times traversed the plains, were indelible, and could be traced for great distances, by the eye, in long, white seams.

"We found fresh trails of horses, which might be those of Gen. Castro, or the Indians. When leaving California, Castro's determination, as we learn from Carson, was to go to Sonora, beat up recruits, and return. Our route might easily be reached, for we are now marching along a road everywhere accessible, and within three days' march of the settlements of Sonora and the fort at Tucson, said to be regularly garrisoned by Mexican soldiers.

"We passed the deserted lodges of Indians, and, at one place remote from the lodges, we saw thirteen poles set up in a sort of incantation formula; twelve on the circumference of a circle, twenty feet in diameter, and one in the center. Radii were drawn on the ground from the center pole to each one in the periphery of the circle. It was the figuring of some medicine man of the Apaches or Pimos, we could not tell which, for it was on neutral ground about the dividing line of the possessions claimed by each.

"After leaving the mountains all seemed for a moment to consider the difficulties of our journey at an end. The mules went off at a frolicsome pace, those which were loose contending with each other for precedence in the trail. The howitzers, which had nearly every part of their running gear broken and replaced, were, perhaps, the only things that were benefited by the change from the mountains to the plains. These were under the charge of Lieut. Davidson, whose post has been no sinecure. In overcoming one set of difficulties we were now to encounter another. In leaving the mountains we were informed that we bade adieu to grass, and our mules must henceforth subsist on willow, cottonwood, and the long, green ephedra.

"November 10.—The valley on the southern side of the Gila still grows wider. Away off in that direction, the peaks of the Sonora mountains just peep above the horizon. On the north side of the river, and a few miles from it, runs a low chain of serrated hills. Near our encampment, a corresponding range draws in from the southeast, giving the river a bend to the north. At the base of this chain is a long meadow, reaching for many miles south, in which the Pimos graze their cattle; and along the whole day's march were remains of zequias, pottery, and other evidences of a once densely populated country. About the time of the noon halt, a large pile, which seemed the work of human hands, was seen to the left. It was the remains of a three-story mud house, 60 feet square, pierced for doors and windows. The walls were four feet thick, and formed by layers of mud, two feet thick. Stanly made an elaborate sketch of every part; for it was, no doubt, built by the same race that had once so thickly peopled this territory, and left behind the ruins.

"We made a long and careful search for some

specimens of household furniture, or implement of art, but nothing was found except the corn-grinder, always met with among the ruins and on the plains. The marine shell, cut into various ornaments, was also found here, which showed that these people either came from the seacoast or trafficked there. No traces of hewn timber were discovered; on the contrary, the sleepers of the ground floor were round and unhewn. They were burnt out of their seats in the wall to the depth of six inches. The whole interior of the house had been burnt out, and the walls much defaced. What was left bore marks of having been glazed, and on the wall in the north room of the second story were traced the following hieroglyphics.

"Where we encamped, eight or nine miles from the Pimos village, we met a Maricopa Indian, looking for his cattle. The frank, confident manner in which he approached us was in strange contrast with that of the suspicious Apache. Soon six or eight of the Pimos came in at full speed. Their object was, to ascertain who we were, and what we wanted. They told us the fresh trail we saw up the river was that of their people, sent to watch the movements of their enemies, the Apaches. Being young, they became much alarmed on seeing us, and returned to the town, giving the alarm that a large body of Apaches was approaching.

"Their joy was unaffected at seeing we were Americans, and not Apaches. The chief of the guard at once dispatched news to his chief, of the result of his reconnaissance. The town was nine miles distant, yet, in three hours, our camp was filled with Pimos loaded with corn, beans, honey and zandias (watermelons). A brisk trade was at once opened. This was my observing night; but the crowd of Indians was great, and the passing and repassing, at full speed, so continuous, that I got an indifferent set of observations.

"The camp of my party was pitched on the side nearest the town, and we saw the first of these people and their mode of approach. It was perfectly frank and unsuspecting. Many would leave their packs in our camp and be absent for hours, theft seeming to be unknown among them. With the mounted guard, which first visited us, was a man on foot, and he appeared to keep pace with the fleetest horse. He

was a little out of breath when he reached us, but, soon recovering, told us he was the interpreter to Juan Antonio Llunas, chief of the Pimos.

"We were taking some refreshments at the time, and invited him to taste of them. The effect was electric; it made his bright, intelligent eye flash, and loosened his tongue. I asked him, among other things, the origin of the ruins of which we had seen so many; he said, all he knew, was a tradition amongst them, that in bygone days, a woman of surpassing beauty resided in a green spot in the mountains near the place where we were encamped. All the men admired and paid court to her. She received the tributes of their devotion, grain, skins, etc., but gave no love or other favor in return. Her virtue and her determination to remain unmarried were equally firm. There came a drouth which threatened the world with famine. In their distress, people applied to her, and she gave corn from her stock, and the supply seemed to be endless. Her goodness was unbounded. One day, as she was lying asleep with her body exposed, a drop of rain fell on her, which produced conception. A son was the issue, who was the founder of a new race which built all these houses.

"I told the interpreter repeatedly, he must go and report to the general, but his answer was, 'let me wait till I blow a little.' The attraction was the aquardente. At length he was prevailed on to go to headquarters, leaving at our camp his bows and arrows and other matters, saying he would return and pass the night with us.

"November 11.—Leaving the column, a few of us struck to the north side of the river, guided by my loquacious friend, the interpreter, to visit the ruins of another Casa Montezuma. In the the course of the ride, I asked him if he believed the fable he had related to me last night, which assigned an origin to these buildings. 'No,' said he, 'but most of the Pimos do. We know, in truth, nothing of their origin. It is all enveloped in mystery.'

"The casa was in complete ruins, one pile of broken pottery and foundation stone of the black basalt, making a mound about ten feet above the ground. The outline of the ground plan was distinct enough.

"We found the description of pottery the same

as ever; and, among the ruins, the same sea shell; one worked into ornaments; also a large bead, an inch and a quarter in length, of bluish marble, exquisitely turned.

"We secured to-day our long sought bird, the inhabitant of the mezquite, indigo blue plumage, with topknot and long tail. Its wings, when spread, showing a white ellipse.

"Turning from the ruins toward the Pimos village, we urged our guide to go fast, as we wished to see as much of his people as the day would permit. He was on foot, but led at a pace which kept our mules in a trot.

"We came in at the back of the settlement of Pimos Indians, and found our troops encamped in a cornfield, from which the grain had been gathered. We were at once impressed with the beauty, order and disposition of the arrangements for irrigating and draining the land. Corn, wheat and cotton are the crops of this peaceful and intelligent race of people. All the crops have been gathered in, and the stubbles show they have been luxuriant. The cotton has been picked, and stacked for drying on the tops of sheds. The fields are subdivided, by ridges of earth, into rectangles of about 200x100 feet for the convenience of irrigating. The fences are of sticks, wattled with willow and mezquite, and, in this particular, set an example of economy in agriculture worthy to be followed by the Mexicans, who never use fences at all. The houses of the people are mere sheds, thatched with willow and cornstalks.

"With the exception of the chief, Antonio Llunas, who was clad in cast-off Mexican toggery, the dress of the men consisted of a cotton serape of domestic manufacture, and a breech cloth. Their hair was very long, and clubbed up. The women wore nothing but the serape pinned about the loins, after the fashion of Persico's Indian woman on the east side of the Capitol, though not quite so low.

"The camp was soon filled with men, women and children, each with a basket of corn, frijolés, or meal, for traffic. Many had jars of the molasses expressed from the fruit of the pitahaya. Beads, red cloth, white domestic, and blankets, were the articles demanded in exchange. Maj. Swords, who had charge of the trading duty, pitched a temporary awning, under which to conduct the business, which had scarcely com-

menced before this place formed a perfect menagerie, into which crowded, with eager eyes, Pimos, Maricopas, Mexicans, French, Dutch, English and Americans. As I passed on to take a peep at the scene, naked arms, hands and legs protruded from the awning. Inside there was no room for bodies, but many heads had clustered into a very small space, filled with different tongues and nations. The trade went merrily on, and the conclusion of each bargain was announced by a grunt and a joke, sometimes at the expense of the quartermaster, but oftener at that of the Pimos.

"November 12.—We procured a sufficiency of corn, wheat and beans from the Pimos, but only two or three bullocks, and neither horses nor mules. They have but few cattle, which are used in tillage, and apparently all steers, procured from the Mexicans. Their horses and mules were not plenty, and those they possessed were prized extravagantly high. One dashing young fellow, with ivory teeth and flowing hair, was seen coming into our camp at full speed, on a wild, unruly horse, that flew from side to side as he approached, alarmed at the novel apparition of our people. The Maricopa, for he was of that tribe, was without saddle or stirrups, and balanced himself to the right and left with such ease and grace as to appear part of his horse. He succeeded in bringing his fiery nag into the heart of the camp. He was immediately offered a very advantageous trade by some young officer. He stretched himself on his horse's neck, caressed it tenderly, at the same time shutting his eyes, meaning thereby that no offer could tempt him to part with his charger.

"The general gave a letter to Gov. Llunas, stating he was a good man, and directing all United States troops that might pass in his rear, to respect his excellency, his people, and their property. Several broken down mules were left with him to recruit, for the benefit of Cook's battalion as it passed along.

"To us it was a rare sight to be thrown in the midst of a large nation of what is termed wild Indians, surpassing many of the Christian nations in agriculture, little behind them in the useful arts, and immeasurably before them in honesty and virtue. During the whole of yesterday, our camp was full of men, women and children, who sauntered amongst our packs, unwatched,

and not a single instance of theft was reported.

"I rode leisurely in the rear, through the thatched huts of the Pimos; each abode consists of a dome-shaped wickerwork, about six feet high, and from twenty to fifty feet in diameter, thatched with straw or cornstalks. In front is usually a large arbor, on top of which is piled the cotton in the pod, for drying.

"In the houses were stowed watermelons, pumpkins, beans, corn, and wheat, the three last articles generally in large baskets; sometimes the corn was in baskets covered with earth, and placed on the tops of the domes. A few chickens and dogs were seen, but no other domestic animals, except horses, mules and oxen. Their implements of husbandry were the axe (of steel), wooden hoes, shovels and harrows. The soil is so easily pulverized as to make the plough unnecessary.

"Several acquaintances, formed in our camp yesterday, were recognized, and they received me cordially, made signs to dismount, and when I did so, offered watermelons and pinole. Pinole is the heart of Indian corn, baked, ground up, and mixed with sugar. When dissolved in water it affords a delicious beverage, it quenches thirst, and is very nutritious. Their molasses, put up in large jars, hermetically sealed, of which they had quantities, is expressed from the fruit of the pitahaya.

"A woman was seated on the ground under the shade of one of the cotton sheds. Her left leg was tucked under her seat and her foot turned sole upward; between her big toe and the next, was a spindle about 18 inches long, with a single fly of four or six inches. Ever and anon she gave it a twist in a dexterous manner, and at its end was drawn a coarse cotton thread. This was their spinning jenny. Led on by this primitive display, I asked for their loom by pointing to the thread and then to the blanket girded about the woman's loins. A fellow stretched in the dust sunning himself, rose up leisurely and untied a bundle which I had supposed to be a bow and arrow. This little package, with four stakes in the ground, was the loom. He stretched his cloth and commenced the process of weaving.

"We traveled 15½ miles and encamped on the dividing ground between the Pimos and Maricopas. For the whole distance, we passed

through cultivated grounds, over a luxuriantly rich soil. The plain appeared to extend in every direction 15 or 20 miles, except in one place about five miles before reaching camp, where a low chain of hills comes in from the southeast, and terminates some miles from the river. The bed of the Gila, opposite the village, is said to be dry; the whole water being drawn off by the zequias of the Pimos for irrigation; but their ditches are larger than is necessary for this purpose; and the water which is not used returns to the bed of the river with little apparent diminution in its volume.

"Looking from our camp north, 30 west, you see a great plain with mountains rising in the distance on each side. This prospect had induced some travelers to venture from here in a direct line to Monterey in California, but there is neither grass nor water on that passage, and thirst and distress overcame, undoubtedly, those who attempted it.

"In almost an opposite direction north, 50 east, there is a gap in the mountains through which the Salt River flows to meet the Gila, making with it an acute angle, at a point ten or fifteen miles distant from our camp, bearing north-west. A little north of east, another gap, twenty or thirty miles distant, shows where the Rio San Francisco flows into the Salt River. From the best information I can collect, the San Francisco comes in from the north; its valley is narrow and much cañoned; good grass abounds all the way. Le Von Cœur, one of my party, came down that river, in 1844, with a trapping party of forty-eight men. He states that they were much annoyed the whole way by the Apache Indians, a great many of whom reside on that river. Every night they were fired upon, and an attempt made to stampede their mules. Many traps were stolen, and one of their party, an old man, who had been in the mountains forty-five years, was killed by the Indians in this expedition.

"Near the junction of the Gila and Salt rivers, there is a chain of low serrated hills coming in from both sides, contracting the valley considerably. Around the south spur the Gila turns, making its course in a more southerly direction. To the east, except where the spurs already mentioned protrude, the plain extends as far as the eye can reach. A great deal of the land is culti-

vated, but there is still a vast portion within the level of the Gila that is yet to be put under tillage. The population of the Pimos and Maricopas together is estimated variously at from three to ten thousand. The first is evidently too low.

"This peaceful and industrious race are in possession of a beautiful and fertile basin. Living remote from the civilized world, they are seldom visited by whites, and then only by those in distress, to whom they generously furnish horses and food. Aguardiente (brandy) is known among their chief men only, and the abuse of this, and the vices which it entails, are yet unknown. They are without other religion than a belief in one great and overruling spirit.

"Their peaceful disposition is not the result of incapacity for war, for they are at all times enabled to meet and vanquish the Apaches in battle, and when we passed, they had just returned from an expedition in the Apache country to revenge some thefts and other outrages, with eleven scalps and thirteen prisoners. The prisoners are sold as slaves to the Mexicans.

"The Maricopas occupy that part of the basin lying between camp 97 and the mouth of the Salt River, and all that has been said of the Pimos is applicable to them. They live in cordial amity, and their habits, agriculture, religion, and manufactures, are the same. In stature, they are taller; their noses are more aquiline, and they have a much readier manner of speaking and acting. I noticed that most of the interpreters of the Pimos were of this tribe, and also the men we met with in the spy guard. Though fewer in number, they appear to be superior in intelligence and personal appearance.

"Don Jose Messio is their governor, and, like the governor of the Pimos, holds his office by the appointment of the Mexican governor of California. The people have no choice in the selection. Both these Indians are respectable looking old men, and seem to be really worthy of the trust reposed in them.

"We had not been long in camp before a dense column of dust down the river announced the approach of the Maricopas, some on foot, but mostly on horseback. They came into camp at full speed, unarmed, and in the most confident manner, bringing water melons, meal, pinole, and salt, for trade. The salt is taken from the

plains; wherever there are bottoms which have no natural drainage, the salt effloresces and is skimmed from the surface of the earth. It was brought to us, both in the crystallized form, and in the form when first collected, mixed with earth.

"My camp was selected on the side toward the village, and the constant galloping of horses rendered it difficult for me to take satisfactory observations, which I was desirous of doing, as it is an important station. When I placed my horizon on the ground, I found that the galloping of a horse five hundred yards off affected the mercury, and prevented a perfectly reflected image of the stars, and it was in vain to hope for these restless Maricopas to keep quiet. News got about of my dealings with the stars, and my camp was crowded the whole time.

"November 13 and 14.—With the morning came the Maricopas women, dressed like the Pimos. They are somewhat taller, and one peculiarity struck me forcibly, that while the men had aquiline noses, those of the women were *retroussés*. Finding the trade in meal had ceased, they collected in squads about the different fires, and made the air ring with their jokes and merry peals of laughter. Mr. Bestor's spectacles were a great source of merriment. Some of them formed the idea that with their aid he could see through their cotton blankets. They would shrink and hide behind each other at his approach. At length, I placed the spectacles on the nose of an old woman, who became acquainted with their use and explained it to the others.

"We were notified that a long journey was to be made without finding water (to cut off an elbow in the river), and the demand for gourds was much greater than the supply. One large gourd cost me four strings of glass beads, which was thought a high price. The interpreter who guided us to the Casa Montezuma, on the north side of the Gila, said that on the Salt River, about a day's journey and a half, there was one of those buildings standing, complete in all respects except the floors and roof. He said it was very large, with beautiful glazed walls; that the footsteps of the men employed in building the house could yet be seen in the adobe, and that the impression was that of a naked foot. Whenever a rain comes, the Indians resort to these old houses to look for trinkets of shells,

and a peculiar green stone which I think is nothing more than verde antique.

"At 12 o'clock, after giving our horses a last watering, we started off in a southwestern direction to turn the southern foot of the range of hills pointing to the Salt River. Five miles brought us into a grove of the pitahaya, which had yielded a plentiful supply of fruit to the Indians. Our way was over a plain of granitic sand, ascending gradually and almost imperceptibly. After leaving the pitahaya, there was no growth except the *larrea Mexicana*, and occasionally, at long intervals, an acacia or inga.

"We traveled till long after dark, and dropped down in a dust hole near two large green-barked acacias. There was not a sprig of grass or a drop of water, and during the whole night the mules kept up a piteous cry for both.

"There was nothing but the offensive *larrea*, which even mules will not touch, when so hungry as to eat with avidity the dry twigs of all other shrubs and trees. As soon as the moon rose, at 3 a. m., the bugle sounded to horse, and we were up and pursuing our way. A little after sunrise, we had passed the summit and were descending toward the Gila. This summit was formed by a range of granite hills running south-east, and standing in pinnacles.

"As the sun mounted, the mirage only seen once before since leaving the plains of the Arkansas, now began to distort the distant mountains, which everywhere bounded the horizon, into many fantastic shapes. The morning was sharp and bracing, and I was excessively hungry, having given my breakfast, consisting of two biscuits, to my still more hungry mule. I was describing to Mr. Warner how much more pleasant it would be to be jogging into Washington after a fox hunt, with the prospect of a hot breakfast, when up rose to our astonished view, on the north side of the Gila, a perfect representation of the capitol, with dome, wings and portico, all complete. It remained for full twenty minutes with its proportions and outline perfect, when it dwindled down into a distant butte.

"We went on briskly to the Gila, whose course, marked by the green cottonwood, could be easily traced. It looked much nearer than it really was. We reached it after making forty miles from our camp of yesterday.

"Our poor brutes were so hungry they would

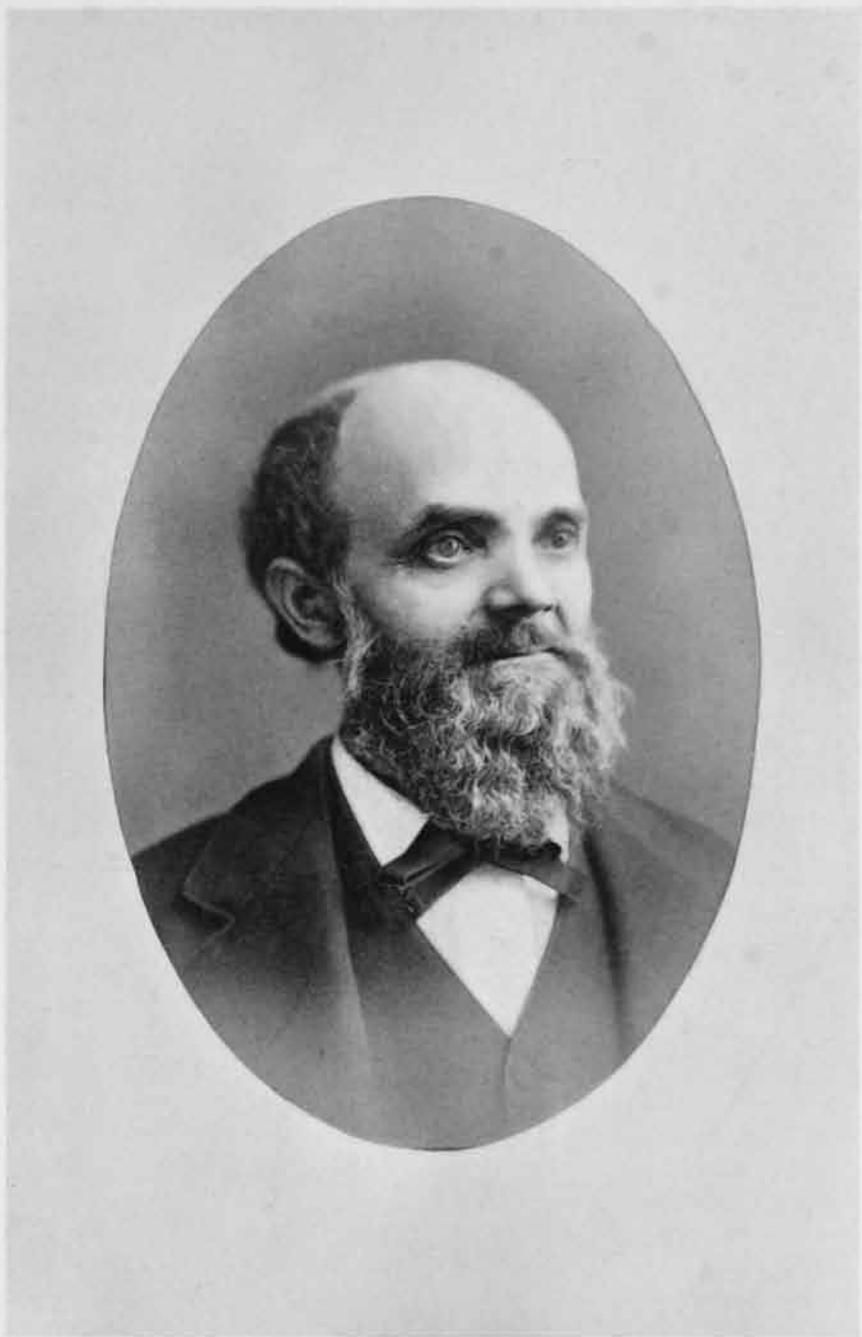
drink no water, but fell to work on the young willows and cane. After letting them bite a few minutes, we moved down the river five miles farther, to a large and luxuriant patch of paspalum grass, shaded by the acacia and prosopis. The latitude of the camp was 35 deg. 59 min. 22 sec., and the longitude given by the chronometer is 112 deg. 50 min. 1 sec.

"November 15.—In the morning the general found the mules so much worsted by the 45 miles' journey without food or water, that he determined to remain for the day. Most of the mules belonging to my party have traveled 1,800 miles, almost continuously. Two or three times they have all appeared on the eve of death; but a mule's vitality seems to recuperate, when life seems to be almost extinct, so I am in hopes the day's rest will revive them sufficiently to enable them to undertake what will be the most distressing part of the journey. From information collected from the Indians and others, it appears that we shall meet with no more grass from this spot to the settlements, estimated 300 miles distant.

"This has been a gloomy day in the dragoon camp. The jornada cost them six or eight mules, and those which have survived give little promise of future service. The howitzers make severe drafts on them. Yesterday, within five miles of the river, Lieut. Davidson was obliged to hitch his private mules to them. An order has been given to-day to dismount one-half the command and reserve the animals for packing.

"From all accounts there is no difficulty in following the route of the river from camp 97 to this place, and the journey is but a trifle longer; I would, therefore, recommend parties in our rear to get a Coco Maricopa guide and keep the river.

"Remains of an old zequia, and the plains covered with broken pottery. About us there are signs of modern Indian tenements, and the zequia may possibly have been the work of their hands. We know the Maricopas have moved gradually from the gulf of California to their present location in juxtaposition with the Pimos. Carson found them, so late as the year 1826, at the mouth of the Gila; and Dr. Anderson, who passed from Sonora to California in 1828, found them, as near as we could reckon from his notes, about the place we are now encamped in. The



SAMUEL, HUGHES.

shells found to-day were, in my opinion, evidently brought by the Maricopas from the sea. They differ from those we found among the ruins.

"November 16.—The valley on the south side continues wide, and shows continuously the marks of former cultivation. On the north side the hills run close to the river.

"After making ten miles we came to a dry creek, coming from a plain reaching far to the south, and then we mounted the table-lands to avoid a bend in the river, made by a low chain of black hills coming in from the southeast. The table-land was strewn with fragments of black basalt, interspersed with agate, chalcidony, vitrified quartz, and carbonate of lime. About the summit was a mound of granite boulders, blackened by augite, and covered with unknown characters; the work of human hands. These have been copied. On the ground near by were also traces of some of the figures showing some of the hieroglyphics, at least, to have been the work of modern Indians. Others were of undoubted antiquity, and the signs and symbols intended, doubtless, to commemorate some great event. One stone bore on it what might be taken, with a little stretch of the imagination, to be a mastodon, a horse, a dog, and a man. Their heads are turned to the east, and this may commemorate the passage of the aborigines of the Gila on their way south.

"Many of the modern symbols are in imitation of the antique, and, doubtless, the medicine men of the present day resort to this mound to invoke their unseen spirits, and work the miracles which enable them to hold their sway amongst their credulous race. There are many more weird and mysterious looking places than this to be found along the banks of the Gila, and the first attraction to the modern Indian was, without doubt, the strange characters he saw inscribed.

"Some of the boulders appear to have been written and rewritten upon so often it was impossible to get a distinct outline of any of the characters.

"We descended into the broad valley of the Gila, skirted on the south side of the table-land, black with basalt pebbles, resting on a stratum of the carbonate of lime, upon which the river impinged at every flood, and widened its valley.

"The hills on the north side were of red and

gray rocks, probably granite, irregular in form, varying from 500 to 1,000 feet. Finding no grass, we loosened our mules among the willows and cane.

"November 17.—The route to-day was over a country much the same as that described yesterday. Wherever we mounted to the table-lands to cut off a bend in the river, found them dreary beyond description, covered with blocks of basalt, with a few intervals of dwarf growth of larrea. Now and then a single acacia raised its solitary form and displayed its verdure in the black expanse. We crossed the dry beds of two creeks with sandy bottoms. Under the crust of basalt are usually sandstone and a conglomerate of pebbles, sandstone and lime. This last is easily undermined by the river, and the basalt or lava then caves in.

"The bottoms of the river are wide, rich, and thickly overgrown with willow, and a tall aromatic weed, and alive with flights of white brant (wing tipped with black), geese and ducks, with many signs of deer and beaver.

"At night I heard the song of the sailors calling the depth of the water, and, presently, Williams. Lieut. Warner's servant, who had been missing all day, came out of the river with the hindquarters of a large buck, perfectly intoxicated with his unexpected success. Twelve miles back, he let his mule loose, went in pursuit of deer, and killed a buck. After lugging the whole of it for two miles, he lightened his load by leaving one-half.

"We encamped down in one of the deserted beds of the Gila, where the ground was cracked and drawn into blisters. The night was cold, the thermometer, at 6 a. m., 20 deg. Latitude of the camp, 32 deg. 55 min. 52 sec. Longitude of the camp, 113 deg. 25 min. 25 sec.

"November 18.—High wind from the northwest all day, showing that there was still a barrier of snow-clad mountains between ourselves and Monterey, which we must turn or scale. Carson pointed to a flat rock covered with fur, and told that he had slaughtered a fat mule there. The names of several Americans were inscribed on the same rock. After traveling some ten or twelve miles through the valley, we mounted to the table-land, and at 12:30 o'clock stopped to graze our horses at a little patch of dried spear grass. Leaving this, the ground, as far as the

eye could reach, was strewn with the black, shining, well-rounded pebbles. The larrea even was scarcely seen, and dreariness seemed to mantle the earth. The arroyo by which we descended to the river was cut from a bed of reddish pebbles 20 or 30 feet deep, and as we neared the river they were soldered together in a conglomerate of which lime was the cement.

"We saw to-day on the rocks, other rude carvings of the Indians, but their modern date was apparent. To-day there was a dead calm, about meridian intensely hot, and the dust rose in volumes as our party advanced. We found the river spread over a greater surface, about 100 yards wide, and flowing gently along over a sandy bottom, the banks fringed with cane, willow, and myrtle. Last night I took an involuntary plunge into it, for my mule sunk in a quicksand, while I was searching for a place to cross my party. To-night I took a swim, but found the waters disagreeably cold.

"The chain of broken hills still continued on the north side, and when near our camp of this date, circled in an amphitheater, with its arch to the north. The basaltic columns, rising into the shape of spires, domes and towers, gave it the appearance, as we approached, of a vast city on the hills. The distance of the crown of this amphitheater, determined by angulation, is — miles, and Francisco informs me, that against its north base the Colorado strikes. So at this point, which is about six miles below our camp of this date, the Gila and Colorado must be near together. The hills and mountains appeared entirely destitute of vegetation, and on the plains could be seen, only at long intervals, a few stunted tufts of *larrea Mexicana*, and wild wormwood, *artemisia cana*.

"November 19.—The table-lands were the same as those described yesterday, but the valley widens gradually, and for most of the way is six or eight miles wide, and the soil excellent. Some remains of former settlements in broken pottery, corn grinders, etc.; but much fewer in number than above. Nine miles from camp a spur of mountains of an altered silicious sandstone came in from the southeast, sharp as the edge of a case knife, and shooting into pinnacles. At their base we passed for half a mile over the sharp edges of a red altered sandstone, dipping southwest about 80 deg., indeed, nearly vertical.

"On this spur was killed a mountain sheep, one of a large flock, from which we named it Goat's Spur. We encamped on an island where the valley is contracted by sand buttes in what had been very recently the bed of the river. It was overgrown with willow, cane, Gila grass, flag grass, etc. The pools in the old bed of the river were full of ducks, and all night the swan, brant, and geese were passing, but they were as shy as if they had received their tuition on the Chesapeake Bay, where they are continually chased by sportsmen. The whole island was tremulous with the motion of the mules grazing, and my observations were, therefore, not very satisfactory. The latitude of the camp was 32 deg. 43 min. 38 sec.

"November 20.—The table-lands were of sand, and the bottom of the river constantly received deposits from them, which changed its bed frequently, as might be seen from the different growths of cottonwood marking the old land. Our road, about five miles from last night's camp, was traversed by a spur of coarse-grained granite underlaid by old red sandstone dipping some 80 deg. to the south and west. The direction of the spur was nearly parallel to those before noted, northwest and southeast, which is the direction of the axis of the maximum elevation of most of the mountains traversing the course of the Gila.

"Our camp was pitched on a little patch of grass two miles from the river; night came on before the horses reached it, and they were without water for twenty-four hours; there was a pond near the camp, but so salt that the horses could not drink it. At noon, the thermometer was 74 deg., at 6 p. m., 52 deg., and at 6 o'clock the next morning, 19 deg., which has been about the average range of temperature for the last two weeks.

"November 21.—To-day we marched only eight and a half miles, and halted for a patch of grama, which was an agreeable and beneficial change to our mules, that had been living on cane and willow for some days past. The plains are now almost entirely of sand, and composed of sandy and calcareous loam, with iron pyrites and common salt, covered sparsely with chamiza, *larrea Mexicana*, and a shrubby species of sage (*salvia*).

"November 22.—Mr. Warner* and I started

* Lieutenant W. H. Warner of the Topographical Engineers.

before the advance sounded, and climbed the sharp spur of a continuous comb of mountains coming from the southeast, to try if we could see the Colorado of the west. The mountains rose abruptly from the plains as they mostly do in this region, resembling in appearance large dykes, terminating at top in a sharp ridge which a man could, at any part, straddle. They were of hard granite, pepper and salt colored, traversed by seams of white quartz. This spur gives the river Gila quite a bend to the north, and from that point to its mouth, which we reached at night, the river is straight in its general direction; but its course is crooked and dotted with sandbars, by incursions from the sand-hills which now flank both its sides. The sand is brought down by the winds from the valley of the Colorado. Its volume seemed, I think, a little diminished, probably absorbed by the sand.

"The day was warm, the dust oppressive, and the march, twenty-two miles, very long for our jaded and ill-fed brutes. The general's horse gave out, and he was obliged to mount his mule.

"Most of the men were on foot, and a small party, composed chiefly of the general and staff, were a long way ahead of the straggling column, when, as we approached the end of our day's journey, every man was straightened in his saddle by our suddenly falling on a camp which, from the trail, we estimated at 1,000 men, who must have left that morning. Speculation was rife, but we all soon settled down to the opinion that it was Gen. Castro and his troops; that he had succeeded in recruiting an army in Sonora, and was now on his return to California. Carson expressed the belief that he must be only ten miles below, at the crossing. Our force consisted only of 110 men. The general decided that we were too few to be attacked, and must be the aggressive party, and if Castro's camp could be found, that he would attack it the moment night set in, and beat them before it was light enough to discover our force.

"The position of our camp was decided, as usual, with reference to the grass. The lives of our animals were nearly as important as our own. It was pitched to-day in a little hollow encircled by a chain of sand hills, overgrown with mezquite.

"The sergeant of the general's guard was be-

hind, his mule having broken down, and when he came in reported having seen two Indians about five miles back. For a short time we supposed this immense trail was a band of Indians returning from a successful marauding expedition in Sonora or California; but this conjecture was soon dispelled by the appearance of a mounted Mexican on a sand butte overlooking our camp, who, after taking a deliberate survey, disappeared. The camp was arranged immediately for defense, and a cordon of sentinels stationed on the sand hills.

"The two howitzers did not arrive till nine o'clock, and the officer in charge, Lieut. Hammond, reported he had seen large fires to the right, apparently five miles distant, on the opposite side of the Gila. The general said it was necessary for him to know who occupied the camp, its force, character and destination.

"He ordered me to take my party and fifteen dragoons, for the purpose of reconnoitering. After beating about in the mezquite for some time, we struck a slough of the Gila, where grew some tall willows. Up one of these I sent a dragoon, who saw no fire, but whose ears were gladdened by the neighing of horses. He slipped down the tree much faster than he climbed it, quite enchanted with the hope of exchanging his weary mule for a charger. Instead of reporting what he had seen, he exclaimed, "Yes, sir, there are enough for us all." "Did you see the fires?" "No; but they are all on horses; I heard them neighing, and they cover much ground." He pointed in the direction, and after proceeding a short distance, we all heard distinctly the noise of the horses, indicating a large number.

"Silence was enjoined, and we proceeded stealthily along for some time, when a bright fire blazed before us. I halted the guard, and with two dragoons, Londeau and Martinez, proceeded unobserved until within a few feet of the fire. Before it stood an armed Mexican. I sent Londeau and Martinez, with orders to assume the occupation of trappers, and ascertain whom, and what, the man guarded. The conference was short; other Mexicans advanced, and I sent in man for man. It was not Castro, as we expected, but a party of Mexicans, with 500 horses from California, on their way to Sonora for the benefit of Castro.

"I took the four principal men to the general,

and left a guard to watch the camp and see that no attempt was made to escape. The men were examined separately, and each gave a different account of the ownership and destination of the horses.

"The chief of the party, a tall, venerable looking man, represented himself to be a poor employe of several rich men engaged in supplying the Sonora market with horses. We subsequently learned that he was no less a personage than Jose Maria Leguna, a colonel in the Mexican service.

"November 23.—We did not move camp to-day, in order to make a refit from last night's capture, and give our mules an opportunity to pick what little grass they could before taking the desert of 90 miles, which lies on the other side of the Colorado, and between us and water.

"Warner, Stanley, and myself saddled up to visit the junction of the Gila and Colorado, which we found due north from our camp, and about a mile and a half distant. The day was stormy, the wind blowing fiercely from the north. We mounted a butte of feldspathic granite, and, looking 25 degrees east of north, the course of the Colorado was tracked by clouds of flying sand. The Gila comes into it nearly at right angles, and the point of junction, strangely chosen, is the hard butte through which, with their united forces, they cut a cañon, and then flow off due magnetic west, in a direction of the resultant due to the relative strength of the rivers.

"The walls of the cañon are vertical, and about 50 feet high, and 1,000 feet long. Almost before entering the cañon, in descending the Gila, its sea-green waters are lost in the chrome-colored hue of the Colorado. For a distance of three or four miles below the junction, the river is perfectly straight, and about 600 feet wide; and up, at least, to this point, there is little doubt that the Colorado is always navigable for steamboats. Above, the Colorado is full of shifting sandbars, but is, no doubt, to a great extent susceptible of navigation. The Gila, at certain stages, might be navigated up to the Pimos village, and possibly with small boats at all stages of water.

"Near the junction, on the north side, are the remains of an old Spanish church, built near the beginning of the 17th century, by the renowned missionary, Father Kino. This mission was eventually sacked by the Indians, and the inhab-

itants all murdered or driven off. It will probably yet be the seat of a city of wealth and importance, most of the mineral and fur regions of a vast extent of country being drained by the two rivers. The stone butte through which they have cut their passage is not more than a mile in length. The Gila once flowed to the south, and the Colorado to the north of this butte, and the point of junction was below. What freak of nature united their efforts in forcing the butte, is difficult to say. During freshets, it is probable the rivers now discharge their surplus waters through these old channels. Francisco informs me that the Colorado, seven days' travel up from the butte, continues pretty much as we saw it.

"There a cañon is reached impassable for horses or canoes. The country between is settled by the Coyoteros, or wolf-eaters, *cochineans* (dirty fellows), Los Tontears, or fools, and the Garroteros, or club Indians. These cultivate melons, beans and maize.

"On our return we met a Mexican, well mounted and muffled in his blanket. I asked him where he was going; he said, to hunt horses. As he passed, I observed in each of his holsters the neck of a bottle, and on his croup a fresh made sack, with other evidences of a preparation for a journey. Much against his taste, I invited him to follow me to camp; several times he begged me to let him go for a moment, that he would soon return. His anxiety to be released increased my determination not to comply with his request. I took him to Gen. Kearney and explained to him the suspicious circumstances under which I had taken him, and that his capture would prove of some importance. He was immediately searched, and in his wallet was found the mail from California, which was, of course, opened.

"Among the letters was one addressed to Gen. Jose Castro, at Alta, one to Antonio Castro, and others to men of note in Sonora. All suspected of relating to public affairs were read, and we ascertained from them that a counter-revolution had taken place in California, that the Americans were expelled from Santa Barbara, Puebla de los Angeles, and other places, and that Robideaux, the brother of our interpreter, who had been appointed alcalde by the Americans, was a prisoner in jail. They all spoke exultingly of

having thrown off 'the detestable Anglo-Yankee yoke,' and congratulated themselves that the tri-color once more floated in California.

"Capt. Flores was named as the general and governor, pro tem., and the enthusiasm of the people described as overflowing in the cause of emancipation from the Yankee yoke. One letter gave a minute and detailed account of a victory stated to have been obtained over the Americans. It stated that 450 men landed at San Pedro, and were met, defeated, and driven back to the fort at San Pedro. This last was attributed by us to Mexican braggadocio, as it is usual with them to represent their defeats as victories; but that there was a disturbance of a serious kind in the province, we could not doubt, from the uniformity of the accounts on that head. We also learned that the horses captured were in part for Gen. Castro. Nothing more was wanting to legitimize our capture, and Capt. Moore was directed to remount his men.

"The letters contained precise information, but being dated so far back as the 15th October, left us in great doubt as to the real state of affairs in California, and the Mexicans played their parts so dexterously, it was not in our power to extract the truth from them. One of the party, who had received some little favor from Carson in California, was well plied with brandy; but all that could be extorted from him was the advice that we should not think of going to the Puebla with our small force, counsel that our friend soon learned we had not the slightest intention of following.

"The position of our camp is about one mile and a half south of the junction of the Colorado and Gila rivers, latitude 32 deg. 42 min. 9 sec.; longitude 114 deg. 37 min. 9 sec.

"The clouds, together with my military duties, interfered with taking a more elaborate set of lunar distances. An inspection of the individual observations for latitude will show that the latitude of the camp may be relied on, but I regret it was not in my power to measure the exact distance of our camp from the mouth of the Gila. At night, passing my arm over the surface of the fur robe in which I was enveloped, electric sparks were discharged in such quantities as to make a very luminous appearance, and a noise like the rattle of a snake.

"November 24.—We visited the camp of our

Mexican friends, whom the general determined to release, and found there was a woman with the party in the agonies of childbirth. She was at once furnished from our stores with all the comforts we possessed. This poor creature had been dragged along, in her delicate situation, over a fearful desert.

"The captured horses were all wild and but little adapted for immediate service, but there was rare sport in catching them, and we saw for the first time the lazo thrown with inimitable skill. It is a saying in Chihuahua that 'a Californian can throw the lazo as well with his foot as a Mexican can with his hand,' and the scene before us gave us an idea of its truth. There was a wild stallion of great beauty, which defied the fleetest horse and the most expert rider. At length a boy of fourteen, a Californian, whose graceful riding was the constant subject of admiration, piqued by repeated failures, mounted a fresh horse, and, followed by an Indian, launched fiercely at the stallion.

"His lariat darted from his hand with the force and precision of a rifle ball, and rested on the neck of the fugitive; the Indian, at the same moment, made a successful throw, but the stallion was too stout for both, and dashed off at full speed, with both ropes flying in the air like wings. The perfect representation of Pegasus, he took a sweep, and, followed by his pursuers, came thundering down the dry bed of the river. The lazos were now trailing on the ground, and the gallant young Spaniard, taking advantage of the circumstance, stooped from his flying horse and caught one in his hand. It was the work of a moment to make it fast to the pommel of his saddle, and by a short turn of his own horse, he threw the stallion a complete somersault, and the game was secure.

"We traveled over a sandy plain a few miles, and descended into the wide bed of the Colorado, overgrown thickly with mezquite, willow and cottonwood; after making about ten miles, we encamped abreast of the ford on a plateau covered with young willows, of which our horses were to lay in a sufficient supply to last them over the desert. Since writing the above, we have found a good patch of grass, and our people have been ordered to cut a ration for each mule to carry along.

"The night was excessively cold and damp,

and in the morning our blankets were covered with a little dew. For the first time, the bugle calls were distinctly reverberated, showing the atmospheric change as we approach the coast, and descend into the neighborhood of the sea level. In New Mexico, even when surrounded by hills and perpendicular walls, the report of firearms, and the sound of the bugle, were unattended by any distinct echo. The reports were sharp and unpleasant, not rounded, as here, by the reverberation.

"The country, from the Arkansas to this point, more than 1,200 miles, in its adaptation to agriculture, has peculiarities which must forever stamp itself upon the population which inhabits it. All of North Mexico, embracing New Mexico, Chihuahua, Sonora, and the Californias, as far north as the Sacramento, are, as far as the best information goes, the same in the physical character of its surface, and differ but little in climate or products.

"In no part of this vast tract can the rains from Heaven be relied upon, to any extent, for the cultivation of the soil. The earth is destitute of trees, and in great part also of any vegetation whatever.

"A few feeble streams flow in different directions from the great mountains, which in many places traverse this region. These streams are separated, sometimes by plains, and sometimes by mountains, without water and without vegetation, and may be called deserts, so far as they perform any useful part in the sustenance of animal life.

"The cultivation of the earth is therefore confined to those narrow strips of land which are within the level of the waters of the streams, and wherever practiced in a community with any success, or to any extent, involves a degree of subordination, and absolute obedience to a chief, repugnant to the habits of our people.

"The chief who directs the time and the quantity of the precious irrigating water must be implicitly obeyed by the whole community. A departure from his orders, by the waste of water, or unjust distribution of it, or neglect to make the proper embankments, may endanger the means of subsistence of many people. He must therefore be armed with power to punish promptly and immediately.

"The profits of labor are too inadequate for the

existence of negro slavery. Slavery, as practiced by the Mexicans, under the form of peonage, which enables their master to get the services of the adult while in the prime of life, without the obligation of rearing him in infancy, supporting him in old age, or maintaining his family, affords no data for estimating the profits of slave labor, as it exists in the United States.

"No one who has ever visited this country, and who is acquainted with the character and value of slave labor in the United States, would ever think of bringing his own slaves here with any view to profit, much less would he purchase slaves for such a purpose. Their labor here, if they could be retained as slaves, among peons, nearly of their own color, would never repay the cost of transportation, much less the additional purchase money.

"I made many inquiries as to the character of the vast region of country embraced in the triangle, formed by the Colorado of the West, the Del Norte, and the Gila; and the information collected, will, at some future time, be thrown into notes for the benefit of future explorers, but are not given in this work, as I profess to write only of what I saw.

"From all that I learn, the country does not differ, materially, in its physical character from New Mexico, except, perhaps, being less denuded of soil and vegetation. The sources of the Salinas, the San Francisco, Azul, San Carlos and Prierte, tributaries of the Gila, take their rise in it. About their headwaters, and occasionally along their courses, are presented sections of land capable of irrigation.

"The whole extent, except on the margin of streams, is said to be destitute of forest trees. The Apaches, a very numerous race, and the Navajoes, are the chief occupants, but there are many minor bands, who, unlike the Apaches and Navajoes, are not nomadic, but have fixed habitations. Amongst the most remarkable of these are the Soones, most of whom are said to be Albinos. The latter cultivate the soil, and live in peace with their more numerous and savage neighbors.

"Departing from the ford of the Colorado in the direction of Sonora, there is a fearful desert to encounter. Alta, a small town, with a Mexican garrison, is the nearest settlement.

"All accounts concur in representing the jour-

ney as one of extreme hardship, and even peril. The distance is not exactly known, but it is variously represented at from four to seven days' journey. Persons bound for Sonora from California, who do not mind a circuitous route, should ascend the Gila as far as the Pimos village, and thence penetrate the province by way of Tucson.

"November 25.—At the ford, the Colorado is 1,500 feet wide, and flows at the rate of a mile and a half per hour. Its greatest depth in the channel, at the ford where we crossed, is four feet. The banks are low, not more than four feet high, and, judging from indications, sometimes, though not frequently, overflowed. Its general appearance at this point is much like that of the Arkansas, with its turbid waters and many shifting sand islands."

In addition to this report Lieut. Emory, in answer to questions propounded to him by Albert Gallatin, concerning the trip through what is now Arizona, answered as follows:

"We struck the Gila in latitude 32 deg. 44 min. 52 sec. and longitude 108 deg. 45 min. west from Greenwich; thence its course is very nearly west. As well as we could judge from the course of the mountains, its course from that point to its source was not very far from northeast or southwest:

"No tributaries to the Gila were crossed before reaching it, except one named by me Night Creek, a very insignificant stream. The Sierra Mimbres, 6,000 feet above the sea at the highest point where we crossed it, falls gradually and almost imperceptibly to the Gila.

"The Rio Salinas comes in from the northeast, a little west and north of camp 97, of November 12. This camp, the astronomical position of which is given in the table, is about midway between the villages of the Pimos and Coco Maricopas Indians.

"The table will show you that the junction of the Gila and Colorado is on the parallel of 32 deg. 43 min. or 44 min.; and, in the absence of more specific information, I would advise you to place the mouth of the Colorado on the parallel of 31 deg. 51 min., which is the latitude given it by Lieut. Hardy, of the royal navy, whose little book of travels in Mexico you have no doubt seen.

"Specimens of the seed of the cotton grown by the Pimos were obtained, but they have not yet

reached me. Overcoming space was the great object we had in view when we passed the Pimos, and our investigations and collections were necessarily hasty and superficial. We passed with them only the part of a day, whereas, if exploration alone had been the object of our party, I should have considered a week as little enough to have devoted to this interesting people. When I left California, it was as a special envoy to the government, and on so short a notice that many of my collections and notes were left behind, with my assistants. Among the things so left, were the seed of the cotton. Most of the plants collected, however, were brought home.

"The Coco Maricopas Indians come from the West. So late as 1826, Mr. Kit Carson, one of our guides, met these people at the mouth of the Colorado. Subsequently to that period, they were visited by Dr. Anderson (whom we met in Santa Fé) at a point about halfway between their present village and the mouth of the Gila River. They are taller and more athletic than the Pimos, and, what struck me as very remarkable, the men had generally aquiline noses, while those of the women were retroussés. They occupy thatched cottages, thirty or forty feet in diameter, made of the twigs of cottonwood trees, interwoven with the straw of wheat, cornstalks and cane.

"Cotton, wheat, maize, beans, pumpkins, and watermelons are the chief agricultural products of these people. Their fields are laid off in squares, and watered, by the zequias, from the Gila River. Their implements of husbandry are the wooden plow, the harrow, and the cast-steel axe (procured probably from Sonora). They have but few cattle, and not many horses. I observed, domesticated among them, ducks, chickens and pigs. They had many ornaments of sea shells, showing, in my opinion, their recent migration from the gulf. From the character given of them by Carson, when he saw them in 1826, although they were then an agricultural people, I should think they had learned much by their proximity to their neighbors, the Pimos, whom they acknowledge as politically their superiors, and with whom they live on terms of intimate and cordial friendship.

"The Maricopas impressed me as a more sprightly race than the Pimos; the interpreters of the Pimos were all natives of the Maricopas

band. The dress of both nations or bands was the same. That of the men a breech cloth and a cotton serape of domestic manufacture; that of the women the same kind of serape pinned around the waist and falling below the knees, leaving the breast and arms bare.

"Both nations cherished an aversion to war, and a profound attachment to all the peaceful pursuits of life. This predilection arose from no incapacity for war, for they were at all times able and willing to keep the Apaches, whose hands are raised against all other people, at a respectful distance, and prevent depredations by those mountain robbers, who hold Chihuahua, Sonora, and a part of Durango in a condition approaching almost to tributary provinces.

"They have a high regard for morality, and punish transgressions more by public opinion than by fines or corporeal punishments. Polygamy is unknown amongst them, and the crime of adultery, punished with such fearful penalties amongst Indian nations generally, is here almost unknown, and is punished by the contempt of the relatives and associates of the guilty parties.

"The Indians we met between the Del Norte and the Pimos settlement were mostly wild Indians of the great Apache nation, which inhabits all the country north and south of the Gila, and both sides of the Del Norte, about the parallel of the Jornada and Dead Man's lakes.

"They have no fixed habits, and the only vestiges of their abodes which we saw were temporary sheds, a few feet high, made of the twigs of trees. They live principally by plundering the Mexicans of New Mexico, Chihuahua, Sonora and Durango. No vocabulary of their language was procured. I am inclined to think they extend up to the headwaters of the Gila. Beyond them, to the north, is the warlike nation of the Navajoes, who, Mr. Fitzpatrick thinks, are allied to the Crow Indians.

"Near the headwaters of the Salinas, which runs in a course, it is said, nearly northeast and southwest, is a band of Indians called the Soones, who, in manners, habits and pursuits, are said to resemble the Pimos, except that they live in houses scooped from the solid rock. Many of them are Albinos, which may be the consequence of their cavernous dwellings. Surrounded by the warlike Navajoe, and the thieving Apache,

they nevertheless till their soil in peace and security.

"My own impression, and it is so stated in my journal, is that the many ruins we saw on the Gila might well be attributed to Indians of the races we saw in New Mexico, and on the Gila itself. I mean by the last, the Pimos, who might easily have lost the art of building adobe or mud houses. In all respects, except their dwellings, they appeared to be of the same race as the builders of the numberless houses now level with the ground on the Gila River.

"The implement for grinding corn, and the broken pottery, were the only vestiges of the mechanical arts which we saw among the ruins, with the exception of a few ornaments, principally immense, well-turned beads, the size of a hen's egg. The same corn grinder and pottery are now in use among the Pimos. The corn grinder is merely a large stone, well-worn, slightly concave, and another of different shape, convex, intended to fit the first and crush the corn between by the pressure of the hand.

"The ruins on the Gila were first seen at camp 81, and we moved thence to the Pimos village. Wherever the mountains did not impinge too close on the river, and shut out the valley, they were seen in great abundance, enough, I should think, to indicate a former population of at least one hundred thousand; and in one place, between camps 91 and 97, there is a long wide valley, twenty miles in length, much of which is covered with the ruins of buildings and broken pottery.

"These ruins are uniformly of the same kind; not one stone now remains on the top of the other; and they are only discoverable by the broken pottery around them, and stone laid in regular order, showing the trace of a foundation of a house. Most of these outlines are rectangular, and vary from 40x50 to 200 and 400 feet front. The stones are unhewn, and are most of an amygdaloid, rounded by attrition.

"Now of the tributaries which come into the Gila from the north, there are several besides the Salinas, which, at their mouths are insignificant in size and can be stepped across; but in this whole region no legitimate inference can be drawn of the size of a river, throughout its course, from that at any one point. It may be large near its source, and, after traversing deserts of



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sand, through arid regions, unwatered by rains, become very small, and even disappear altogether.

"Therefore, except the Salinas, of which we have oral accounts, nothing is known or can be inferred of the magnitude of these tributaries from their appearance at the junction. These tributaries come in near camp 81, where the mountains are so precipitous and bold no conjecture can be formed of their course.

"The Salinas must have been the branch by which the expedition of Coronado ascended and crossed into New Mexico. Its general direction is not far from a line drawn from its mouth to Santa Fé, and nearly in this line are the seven towns mentioned as being on the headwaters of the San Jose. Indians now pass from the Pimos village to New Mexico on this route.

"We were informed by an intelligent Maricopas Indian that, about fifty miles from the mouth of the Salinas, was now standing, in a perfect state of preservation, the walls of a large three-story building of mud, with its interior sides glazed and finely polished, and about it was to be seen many traces of large acequias, and broken pottery in great abundance.

"There is another tribe of Indians called the Moquis, who, like the Pimos and Soones, cultivate the soil and live in peace with their neighbors; but the exact locality of this tribe I do not know, beyond the fact that it is on or near the headwaters of some of the tributaries of the Gila.

The following shows the location of the different camps of the column under Gen. Kearney: Camp 78, on the Gila; camp 79, on the Gila; camp 80, on the Gila; camp 81, on the Gila; camp 82, on the Gila; camp 83, on the Gila, about 50 feet above the river. (Top of ridge between camps 82 and 83, on the road.) Camp 83, on the Gila; camp 84, on the Gila, about 20 feet above the river; camp 85, on the Gila, 20 feet above the river; camp 86, 10 feet above the river; camp 87, on the Rio San Francisco, about two miles from the mouth of the Gila; camp 88, in the mountains, on the trail cutting off a bend of the Gila; camp 89, Disappointment Creek; camp 90, on the Gila; camp 91, on the San Pedro; camp 92, on the Gila; camp 93, on the Gila; camp 94, Carson's Plains, on the Gila; camp 95, Carson's Plains, on the Gila; camp 96, in the Pimos village, on the Gila; camp 97, about four

miles from the Gila, after passing the Pimos village; camp 98, on trail of the cut-off, —miles from the Gila; camp 99, on the Gila; camp 100, on the Gila; camp 101, on the Gila; camp 102, on the Gila; camp 103, on an island of the Gila; camp 104, on the Gila; camp 105, on the Gila; camp 106, near the mouth of the Gila; camp 107, on the east bank of the Rio Colorado; camp 108, first camp on the Jornada; camp 109, at an old mill on the Jornada.

In the report of Lieut.-Col. P. St. Geo. Cooke, who was placed in command of the Mormon battalion and ordered to follow Gen. S. W. Kearney, westward from Santa Fe across Arizona, and join him in California, many interesting features of the wildness of Arizona are presented. On the 13th of October, 1846, he assumed command of this battalion, which rendezvoused at Santa Fé and mustered 448 men. A little later the forward movement was begun. The general direction was, first, south on the Rio Grande, thence southwest across the country into what is now Mexico, thence west until the headwaters of the San Pedro were reached, thence down that stream to near what is now Ochoa, thence west to Tucson, thence northwest to the Gila, about fifteen miles above the mouth of the Salt, thence down the same to the Colorado, thence northwest into California. So much of this report as relates to Arizona is here produced:

"I made the next 62 miles, to the San Pedro River, with little more difficulty than cutting my way through dense thickets of mezquite and many other varieties of bushes, all excessively thorny. It was but 27 miles without water over the last divide; there was snow one day, and for about two weeks, at that time, we suffered with cold. I descended the San Pedro 55 miles, to a point whence a trail goes to Tucson. The guides represented that it was 85 miles of very difficult, if practicable, ground to the mouth of the San Pedro, and one hundred from there to the Pimos: also, very bad, and little or no grass; and, on the other hand, that it was only about 90 miles of a good road, with grass, by Tucson to the same point. I reflected that I was in no condition to go an unnecessary hundred miles, good or bad, and that, if their statements were true, the future road must go by the town. I had previously sent Leroux, Foster and others to examine if there was water on the 30 miles, which

was the estimated distance to Tucson. Leroux had just returned; he had found water at a "still-house," 20 miles from the river; and had encountered there a sergeant's party of dragoons. He had made up a story to get off; but, to give it color, Dr. Foster fancied it necessary to go on to the town. Leroux was told, by Indians, that 200 soldiers, with artillery, had been there concentrated. I reached the water next day, and probably surprised the sergeant's party. I found them cutting grass; but the sergeant, as if the bearer of a flag, delivered me a singular message from the commander, which amounted to a request that I should not pass his post. Next morning, I made prisoners of four others, who had come, probably, with provisions; and as Dr. Foster's long stay had made me uneasy for him, I dismissed one of them with a note, stating that I should hold the others as hostages for his safety; and promised to release the prisoners if he was sent to me that evening. Deceived as to the distance, but expecting to encamp without water, I marched late; and, having made twelve miles on a road very difficult in places, I encamped at sundown, on the high prairie. At midnight, Foster reached me; with him came two officers: one as a 'commissioner,' with written instructions to offer a kind of truce, by the terms of which I was to pass the town by a certain point, and to hold no communication with the people. I rejected them, and demanded a capitulation; which the commissioner, with great form, wrote, after his own fashion, in Spanish, and I signed it. The terms bound the garrison not to serve against the United States during the present war; and, as the only further tokens of surrender, to deliver to me two carbines and three lances; my men to enter freely and trade with the inhabitants of the town. After a tedious conference of two hours, in which we had been very friendly, but very cold, the officers departed, assuring me my terms could not be accepted. Believing I was eight or nine miles from town, I took measures to march at daylight; but unfortunately the mules being herded in mezquite bushes, and without water, the half of them, in the darkness of night, escaped the guard; and I could not possibly march, with any prudence, before 8 o'clock.

"The distance proved to be sixteen miles. About five miles from town I was met by a dragoon, or lancer, who delivered me a letter,

simply refusing my terms. I told him there was no answer, and he rode off. I then ordered the arms to be loaded. Immediately afterward, two citizens rode up, and reported that the place had been evacuated. I arrived at 1 o'clock, and, having passed through the fort, encamped in the edge of the town. Two small field pieces had been taken off, and all public property of value, except a large store of wheat.

"The garrisons of Tubac, Santa Cruz and Fronteras had been concentrated, and, I understood Dr. Foster, there were altogether about 230 men; but I have lately learned that he only estimated them at 130. I remained in camp the next day, December 16. There was very little grass, and I fed my mules, cattle and sheep on the wheat (and brought off enough for two more days, in the adjoining desert). That day, to cover some small parties of mule hunters, I made a reconnaissance, with about sixty men, marching half way to an Indian village, ten miles off, where the enemy were stationed. (I intended attacking him under favorable circumstances, but the path led me through a dense mezquite forest, very favorable to an ambush. I learned, however, that this demonstration caused him to continue his retreat.)

"The garrison attempted to force all the inhabitants to leave the town with them. Some of them returned whilst I lay there, and I took pains that all should be treated with kindness. The day I arrived there, a detachment of twenty-five men, who had been posted at the Pimos, to observe or harass my march, having been sent for by express, passed unobserved round a mountain, near town, and joined the main body. (I afterward learned that they had made a threatening demand for the mules and goods left for me with the Indian chief. He refused and expressed his determination to resist, by force, any attempt to take them.) On leaving Tucson, I sent to its late commander, Captain Compaduran, by a citizen messenger, a letter for the governor of Sonora (and I afterward received an answer that it would be transmitted). All things considered, I thought it a proper course to take toward a reputed popular governor of a State, believed to be disgusted and disaffected to the imbecile central government. It was intimated to me, whilst in Tucson, that if I would march toward the capital of the department, I would be

joined by sufficient numbers to effect a revolution.

"On the 17th, I marched late, as I did not expect to find water. At 8 o'clock p. m., I encamped 24 miles from Tueson, with no water or grass. Ten or fifteen miles further there is a little water, in a mountain, close to the road, but it could not be found; and I marched, the second day, thirty miles, and, at 9 p. m., again encamped, without water; but the men, about sundown, had a drink from a small puddle, too shallow for the water to be dipped with a cup. On the third day, I marched, early, eight or nine miles, and encamped at rain water pools. The next day, I found it ten miles to the Gila, at a small grass bottom, above the Pimo villages. The mules were forty-eight hours without water; the men marched twenty-six of thirty-six consecutive hours, and sixty-two miles in rather more than two days (in one of which no meat ration was issued).

"Thus, the 90 miles of the guides turned out to be 128 to the village; 57 miles nearer than the reputed distance by the San Pedro. Excepting four or five miles, the road was excellent; but over a true desert. There is, however, a better watered road from Tueson, which strikes the Gila higher up. I believe this route can be well taken for six months in the year; and, that like much of the road on this side, it is impassable in summer, unless for travelers. It is a great gold district; rich mines have been discovered in many of the mountains in view, but it is so barren and destitute of water that even a mining population can scarcely occupy it.

"I halted one day near the villages of this friendly, guileless and singularly innocent and cheerful people, the Pimos. There Francisco met me with your letter from Warner's ranche; he brought with him seven mules found on the Gila; and, altogether, I obtained, at the villages, twenty, which had belonged to the dragoons. They were not sufficiently recruited to be of much service. I traded the Indian goods, and every spare article, for corn. After feeding it several days, I brought away twelve quarts for each public animal, which was fed in very small quantities.

"With the aid of a compass, and closely estimating the distances, I have made a rude sketch of my route from the point on the Rio Grande,

where our roads diverged, to their junction, near the villages. It is herewith submitted. I have good reason to believe that, even with pack mules, better time can be made on my route than yours; and the mules kept in good order, for mine improved on the greater part of it. On the 27th December (after making the forced march, without water, across the bend of the Gila), in consequence of the information received in your letter, I determined to send my useless guides express, to give you information of my approach, &c; hoping thus, as I said, to meet orders at Warner's ranche on the 21st of January, and to be of service to your active operations. I also sent for assistance in mules, understanding that you had placed a number of them in that vicinity.

"Sixty or seventy miles above the mouth of the Gila, having more wagons than necessary, and scarcely able to get them on, I tried the experiment, with very flattering assurances of success, of boating with two ponton wagon beds, and a raft for the running gear. I embarked a portion of the rations, some road tools and corn. The experiment signally failed, owing to the shallowness of the water on the bars; the river was very low. In consequence of the difficulty of approaching the river, orders mistaken, &c., the flour only was saved from the loading, and the pontoons were floated empty to the crossing of the Rio Colorado, where they were used as a ferryboat. I passed that river on the 10th and 11th of January.

"The country from the Rio Grande to Tueson is covered with grama grass, on which animals, moderately worked, will fatten in winter.

"An emigrant company may leave Independence, Missouri, from June 10, to late in August, or Van Buren, Arkansas, later. It will subsist a short time on buffaloes, and be able to lay up much of the meat, dried or salted. In New Mexico, it may rest, make repairs, and obtain supplies—particularly of mules, sheep and cattle—which, in that grazing country, will be found cheap; it may pass through settlements for 250 miles; and they will be much extended in the rich river bottoms to the south, when the Indians shall be subdued.

"I brought to California both beeves and sheep; the latter did, perhaps, the best, requiring little water; they gave no trouble; two or three men can guard and drive a thousand. At Tueson, or

at the Pimo villages, fresh supplies may be obtained. The Pimos and Maracopas, 15 or 20,000 in number, wonderfully honest and friendly to strangers, raise corn and wheat, which they grind and sell cheaply for bleached domestics, summer clothing of all sorts, showy cotton handkerchiefs and white beads. They also have a few mules and cattle. I gave them some breeding sheep. Oxen will not do well for draft, their feet become tender; and west of the Pimos, their food is not found sufficient or suitable; mules require no shoes; I cached a large quantity on the Gila, having used none.

"Undoubtedly, the fine bottom land of the Colorado, if not of the Gila, will soon be settled; then all difficulty will be removed. The crossing is about 100 miles from the mouth, and about 60 above tide. For six months in the year, the river is said to be navigable by steamboats for 350 miles; its bottoms are wide and rich; and sugar, undoubtedly, may be grown. In winter, it is fordable at the crossing; but I think it has at least as much water as the Missouri at the same season, and may be navigable by steamers to the mouth of the Gila at all seasons."

Following is a copy of a letter sent to the Governor of Sonora:

"Camp at Tueson, Sonora, December 18, 1846.

"Your Excellency: The undersigned, marching in command of a battalion of United States infantry, from New Mexico to California, has found it convenient for the passage of his wagon train, to cross the frontier of Sonora. Having passed within fifteen miles of Fronteras, I have found it necessary to take this presidio in my route to the Gila. Be assured that I did not come as an enemy of the people whom you govern; they have received only kindness at my hands.

"Sonora refused to contribute to the support of the present war against my country, alleging the excellent reasons that all her resources were necessary to her defence from the incessant attacks of savages; that the central government gave her no protection, and was therefore entitled to no support. To this might have been added that Mexico supports a war upon Sonora; for I have seen New Mexicans within her boundary, trading for the spoil of her people, taken by murderous, cowardly Indians, who attack only to lay waste, rob, and fly to the mountains; and

I have certain information that this is the practice of many years. Thus one part of Mexico allies itself against another. The unity of Sonora with the States of the North, now her neighbors, is necessary effectually to subdue these Parthian Apaches.

"Meanwhile I make a wagon road from the streams of the Atlantic to the Pacific Ocean, through the valuable plains and mountains, rich with minerals, of Sonora. This, I trust, will prove useful to the citizens of either republic, who, if not more closely, may unite in the pursuits of a highly beneficial commerce. With sentiments of esteem and respect, I am your excellency's most obedient servant,

"P. ST. GEO. COOKE, Lieut. Col., commanding United States forces.

"To His Excellency Sr. Don Manuel Gandara, Governor of Sonora, Ures, Sa."

The following is taken from the journal of Capt. A. R. Johnston, who accompanied the military expedition of Gen. S. W. Kearney in 1846-7:

"We followed this creek for five miles, and fell upon the famous Gila, a beautiful mountain stream about thirty feet wide and one foot deep on the shallows, with clear water and pebbly bed fringed with trees and hemmed in by mountains, the bottom not more than a mile wide. The signs of beaver, the bear, the deer and the turkey, besides the tracks of herds of Indian horses, were plain to be seen on the sand. We came down the river two and a half miles more, about south, and encamped at the head of one of its cañons, preparatory to a long journey over rocky hills tomorrow. Northward from where we struck the river is an open country lying west of a very high mountain, called the Gila Mountain, in which it is said the salt forks also head. Our camp was well supplied with a fine fish from the river resembling a little the black bass; its flesh was not firm but very delicate. The California quail abounds in the bottoms. A new sort of sycamore tree made its appearance here; it has a bark precisely like our own sycamore tree, or buttonwood, and a leaf resembling the maple; the leaves are now yellow with the frost, as they are of the most deciduous plants. Found some of the fruit of the black walnut of this country; it is about half the size of our black walnut, and not rough on the outside as ours, but shows the veins of the seams of the outer bark. The roses, the hops,

mosquitoes, and poison oak looked familiar, and some other plants known in the United States, names unknown. Just as we were leaving camp to-day, an old Apache chief came in and harangued the general thus: 'You have taken Santa Fé, let us go on and take Chihuahua and Sonora; we will go with you. You fight for the soil, we fight for the plunder; so we will agree perfectly. Their people are bad Christians; let us give them a good thrashing, &c.' Marched seven and a half miles, and encamped at the upper end of a cañon, through which we could not travel to-night; grass good.

"October 21.—Marched at half past seven, and, going down the river a few miles, we commenced climbing a rugged mountain of basaltic rock, where our mountain howitzers will find trouble in climbing; for seven miles our track lay over the mountain, up and down steep declivities. At one point we had a magnificent view down the Gila, which lay before us, running southwest. At a long distance south, the horizon was limited by mountain peaks between us and them, and to the limits of the horizon until we came to the Sierra Del Buro, southeast there was a vast plain of diluvion covered with grama grass. This plain connects with that of the Del Norte, so that one can ride south of the Sierra Del Buro from the Del Norte to the Gila without crossing a single mountain. In passing the mountains to-day we encountered the usual basaltic rocks, then sienite, then basalt, then feldspathic granite, then red sandstone (small specimen); this was standing northwest to southeast, vertical across our route, and a cliff overhung us, probably of the same rocks, with a dip to the northwest, dipping from the Sierra Del Buro; then to feldspathic granite again like that of the Wishita salt, very easily disintegrated. The live cedar and a tree resembling oak on the hills, but scattered; grama and other grasses quite abundant; saw one deer and one flock of partridges; saw a dwarf species of mulberry on the hills; the mistletoe abounds; also, the sweet cotton-wood and willow thinly scattered along the river; very little brush in our way. The poison oak must be for some wise use, for it grows here too. A sort of wild squash, which grows from Bent's fort to Red River, is also found here. Our mules begin to show symptoms of failing. We passed to-day very little land that would bear cultivation, even by irri-

gation; the upland is gravel and sand, the bottoms a sort of volcanic dust, made very loose by the undermining of myriads of rats and mice of new varieties. Caught two new kinds of fish in the clear waters of the Gila, baiting with grasshoppers. Our howitzers did not get up this night, Lt. Davidson being in charge of them, lay out at the base of the mountains; after dark, one of his howitzers and a mule rolled down a steep declivity and disappeared in the dark in a ravine, where he had some difficulty in finding them; it was, however, uninjured. Camp on plenty of grama grass; distance 18 miles.

"October 22.—The howitzer arrived, and we marched at 10, crossing the Gila several times, as we move down it for four miles; we then crossed it, and made a circuit of 14 miles to the south side, to get around a cañon through which the river flows; our road was bad, from the number of gutters cut deep through the diluvion, of which the whole country, except the mountain peaks, is composed; it forms the substance of the plains of the Del Norte and the Gila; and, from its general level, no doubt, was deposited in the bed of an ocean. We passed a number of smaller mountains or hills, apparently composed of black basalt; and the cañon of the Gila here is caused by a seam of it crossing the course of the river, through which the water has cut a way: under this seam of basalt there lies a succession of white sandstone rocks, with a dip to the north, and incurved east and west. The character of these rocks is the same as that which occurs on the Del Norte at our camp on the 11th October; and in general the formation of the country, so far, on this river, is similar to that on the Del Norte. The vegetation, to-day, is more of a tropical character; the large prickly pear, with a tree-trunk six or seven feet high, made its appearance; a new shrub made its appearance; it appeared to be without leaves, and looked like large bunches of the green thorn which defend the trunks of the young honey-locusts in Ohio; it bore a smell like blackberry; there were two new varieties of cactus on the road, and the Spanish bayonets grew in great abundance; encamped on the bluffs, 180 feet above the water, the grass being scarce in the bottom. Distance, 18 miles.

"October 23.—I went back after my mule, which old Rob had let get away from him; found it by traveling where we left the Gila yesterday;

discovered that the diluvion is formed into stone on the banks of the Gila above the cañon, forming perpendicular walls, upon which, for 30 feet above the level of the stream, the action of water was plainly visible; returned to the old camp and slept; the troops moved at 9, and continued down the river, on a good road, coming into a plain with the salt grass upon it; the road side was strewn with pieces of broken pottery, which led to examination, and the evidence of a large village was plain; one foundation was found, 80 feet by 40; a *fleur de terre*; and there were piles of round stones, which had been used in former buildings; the place must have been occupied for a long time, as the quantity of broken pottery was very great; the fragments were apparently just like those in the daily use of the present New Mexicans: I followed here to overtake the troops, and did not have time to make any searches who it was that occupied these places. Was it Spanish or the Aztecs, *quien sabe?* The buildings of adobe do not remain long as ruins; perhaps they were Spaniards, who worked mines in the neighborhood, and were subsequently driven out by the Indians, as they were from a silver mine west of Santa Fé. The country is not much frequented by Indians now just along here, as Carson left some horses and mules, and found them here.

"October 24.—Laid by in camp, the salt grass purged our horses, and gave some of them the cholera.

"October 25.—Marched early and made about 25 miles, over a very rough country approaching the third cañon of the Gila and San Pedro mountains; the black hills of basalt rise on each side, and deep cuts in the diluvion makes the country very rough; some valleys on the Gila are capable of cultivation, and at them found the ruins of a number of habitations. The outlines of the foundations were visible, as round stones had been used for that purpose. The houses, probably made of adobe, were long since washed a *fleur de terre*. The longer house was shaped like those of New Mexico in present use; the smaller ones had the appearance of some of the assemblages of houses occupied by the Pueblos of New Mexico. In the longer house were some cedar pieces of posts and joists, very much decayed. How long cedar would last in this dry atmosphere, I cannot tell; but presume, if even exposed to the weather, it might lay like a stone for ages.

Pieces of broken pottery strewn the ground in every direction, and fragments of black crystal, which no doubt were left from the manufacture of arrow points. The pottery seemed like that in present use among the New Mexicans. I raked the dirt in various directions, in vain, to find some relic which might indicate the antiquity of the ruins; a number of broken stones to pound corn upon, showed that the people were agricultural. In the bottom was the ruins of a small house, probably used for guarding the fields. Two miles further down the river there were fragments of broken pottery more ancient looking; one square room, with another house attached, with a hole in the ground within the foundation, about 20 feet square and now about eight feet deep; its only present inhabitant was a strange looking yellowish grey rat, which retreated to his hole; could I have followed him through his burrowings, I might have found some clue to the mystery of the former inhabitants. We soon after commenced approaching the third cañon of the Gila, and climbed mountains over paths which once had been used by this people. We diverged from the river again, and, after much rough traveling over broken volcanic rocks, we found a camp of grama grass about 400 feet above the river on a towering hill, with rough descent to the water; distance traveled about 20 miles. A horse which Carson had left here a week or two before, as he came from California, took fright at our approach and fled to the hills at the top of his speed, baffling all effort to retake him.

"October 26.—Started at a quarter to 7; as we are warned of a troublesome march, it commenced as we descended to the river, and continued for about 14 miles, up and down steep declivities covered thick with fragments of black basalt, with scarcely a place where an animal could step without putting his foot on a loose stone, many of them angular and sharp. This terrible journey we had to take to get around the third cañon, which is impassable. As the van toiled along, rising hill upon hill, the rear fell behind, until, finally, they were lost to view; the head of the column reached the river about 3 o'clock, and at midnight the cattle and howitzer party came, Lt. Davidson reporting that his men and mules had given out, and had left the howitzers 5 miles back; some of the men did not come in until morning. At daylight (27th) we saw one

of the dragoons perched on a cliff, with his kit on his back, just abandoning his mule, which he had led down toward our fire the night before, and found himself cut off by a precipice, he laid down and spent the night; and the next morning, not being able to get his mule back, he took off his saddle and retraced his steps with all his effects upon his back; the general had a party sent and rescued the animal from its perilous height. This journey can no doubt be avoided by leaving the Gila higher up, and taking more to the south around these basaltic peaks. The action of the water on the diluvion drift was plain for 500 or 600 feet, the pebbles for 400 feet, or thereabouts, being of varieties from a distance mixed with those of the locality; higher up, the stones, rounded by attrition, were wholly those of the locality. The hills were of conical form, piled upon each other; one of them with a cap of trap; all seemed to be solid basalt thrust up from beneath; a very few cedars and other shrubs; several large kinds of cactus and grass tuft between the rocks was all the vegetation, the grass growing finest on the north side of the hill. Having passed this rocky barrier, we find the grass scarce; the hills are green with the creosote bush; and, from this on to California, we may count upon but scanty picking for our poor animals. It is not improbable that in the volcanic convulsions which gave this country a form, some mephistic substance was produced in quantities to poison the soil for vegetation. This creosote plant shows something; and a shower of rain which fell upon us, although very slight, made the atmosphere smell of some vile gas. Opposite our journey, the Black and Blue rivers come on the northeastwardly; the Black courses south, with a branch in the mountains called Bonita; the course of the Blue southeast; they head in the mountains north of the Gila, and may be 60 miles long; they come into the Gila about six and a half miles apart. Near our camp a small stream called the St. Charles comes in; all three of these streams flow through cañons. The diluvion here is very thick, and of a rocky nature, which, with the basalt, make the walls of the cañon vertical. Near our camp are old horse signs and trails, and old Indian wigwams of willows about 5 feet high, and covered with willows and grass. Near where we left the Gila to-day was the ruins of two ancient houses, shown only by the founda-

tion stones and the pieces of pottery. If I only had one of the young ones that had been boxed on the ears for some of the breakages!

"October 27.—Laid in camp on account of the fatigue of yesterday to the animals, and to get up the howitzers; near camp is an old ruin; the foundation of the building is as those given above; some quantities of broken pieces of pottery were lying about it; I got two men and some spades, and dug about it, in hopes of finding something, but found nothing but pottery; it appeared to be very ancient.

"October 28.—Marched at a quarter before 8; after coming two or three miles, we found the remains of an old settlement, the foundations of the houses covering a larger space than those before seen, but the plan of the houses only to be discovered by the rows of round stones; abundance of pottery; the place was overgrown with mesquite and chimezo; the rooms from 12 to 20 feet in dimensions; about 6 miles from camp, were other houses, the rooms of which—some of them—appeared to have been round; a little further, and there was a circle of stones 90 paces in diameter, with an opening to the east, with the remains of a house near the center; and some foundations outside; there were no remains of wood; a mile further, and remains of very extensive buildings were to be seen; the rooms—some of them—appeared to have been 40 by 50 feet; and, from the greater quantity of rubbish, the houses must have been much larger; the pottery abundant; pieces oddly marked. Further on, we came to a large plain at the junction of a creek which comes from the southeast; and here was found the remains of the most extensive settlement; the most of the houses had cedar posts in a state of decay, standing in the ground; a rampart had been raised in a circle of over 300 yards, and on parts of it, houses had been made; in the middle was a hole with three entrances or slopes down to the bottom of it; probably an old well filled up, as the surface was probably not over 15 feet above the level of the river; pottery very abundant; our road lay along the course of the Gila, which we crossed several times; the road was very dusty, so that our mules dug great holes as they stepped along, one after the other; the tracks of a Mexican cannon were plain to be seen on the trail we were following; some expedition last spring, probably against the Apaches,

to the southeast; we can see a level country passing south of the Devil's turnpike; the creek coming from that direction can probably afford water; south of southwest of our camp is a high mountain, about five miles off, the top covered with trees; around the southeast base of this is a broad trail leading toward Sonora, where the Apaches go to steal; it leads across to the head of San Pedro. Our route showed the action of fire in the bottoms, which, in many places, had swept the growth of vegetation off, for years of what the earth had attempted to clothe herself with; the soil is so light, that fire kills the roots, as well as the tops of the trees; mesquite is abundant on the bottoms; and here it is a large tree, two feet in diameter, but not lofty; grass was scarce on our path, so that we had no place to camp except here; the grass coarse, and of the salt kind; several Indian trails crossing our path showed the presence of the Apaches. The Gila is getting to be much larger—still not deep fording. Distance, 21 miles.

"October 29.—Marched at 10 minutes of 8; kept on the south side of the Gila all day; about eight miles out, we passed the mouth of a stream seen on our left yesterday; it was dry, but at times it contained a good deal of water; its course is marked by cotton-woods; at only two or three places could a camp have been found; all salt grass; about twelve miles, there is a level plot of salt grass running down to the river—enough for thousands of animals. All the country seemed to be perishing for want of rain. About five miles from camp, we fell upon the great stealing road of the Apaches; it was hard beaten, and in places many yards wide, filled with horses, mules' and cattle tracks, the latter all going one way—from Sonora; the bottom on the south side of the river is about two miles wide; along here, for 40 miles, it could all be irrigated. There is a large quantity of cotton-wood along the Gila; the mountain peaks stand along the river on each side, with long intervals of comparatively low land between them; looking back to the southeast, a vast plain is seen south of the turnpike, through which we might have evaded that horrible journey. A wild mule paid the column a transient visit, but eluded pursuit, and fled to the hills with the swiftness of the deer. We have had the best road to-day of any since we left Santa Fé. Pottery in abundance; but all the houses

were gone; probably they used no stones in the foundations. Distance, 21½ miles.

"October 30.—Marched at a quarter before 8, and continued on the Kiataro trail down the Gila; at 10 miles, we halted to noon on the south side (left bank) of the Gila, at a good grass plat. On a hill of the usual diluvion, of 50 feet above the level of the river, with a steep ascent, was the ruins of an ancient dwelling; the rooms marked by the foundation stones of round volcanic rocks, from one to two feet in diameter. I found a shell in the ruins, which had been perforated, and worn as an ornament, besides many pieces of pottery; the rooms were square, of the usual size of 12 or 15 feet; near the house, a stone was found, about two inches by an inch and a half, which had been painted red. It may have been used as the foot of an idol. The pottery was marked. We continued our march, after our usual halt of an hour; and after crossing the Gila five or six miles, we came suddenly upon two Indians, old fellows, shriveled up and purblind; they had three horses pretty well packed with something, and a quantity of material for arrows; they were fairly caught by surprise, and were very much frightened; we gave them tobacco and tried to get them to come to camp with us, but the old fellows made a very eloquent speech, which we could not understand, and pointed earnestly for us to go on, and let them go their way; we left them, and got to camp about three o'clock; distance, 22½ miles, thinking they would pass along our column to the rear; but they marched themselves instantly; they are of the Hilend's Gila Indians, or Kiataws (prairie wolves), as they are nicknamed; from them the river takes its name. The valley is narrower to-day, but no doubt once supported a large population; camp good on the left bank; signs of rain in the dry creek.

"October 31.—Marched at a quarter to 8, having sent Carson off at 7, with four dragoons, to explore ahead the route. As he, on his route from California, made 60 miles to a point 8 miles up the San Francisco without water, we take an Indian road nearer the Gila, and hope to shorten the distance without water. After marching 10 miles, we halted on the San Francisco, right bank, where we finally encamped. Carson reports that we can make seven miles more on the river, and must then bear off, to avoid the cañon



Geo. H. M. Lusk.

No. 4; after we had concluded to camp, some Gilands made their appearance on a distant hill and made signals; we called them, and sent messengers to them; waved a white flag; our messengers, Capt. Moore and Carson, shook hands with them, but they would not be induced to come to camp; they have been dealt with by Americans in the employment of Chihuahua, who have hunted them at \$50 a scalp, as we would hunt wolves; and one American decoyed a large number of their brethren in rear of a wagon to trade and fired a field-piece among them; it is no wonder, then, that two parties of God's creatures, who never knew each other before, should meet in a desert, and not approach near enough to shake hands. It would be well for us to get them to us, as we might buy some mules; ours are flagging; and we might get water-guides in the 60 miles in front of us. Remains of pottery at camp; beaver dams in great numbers in the San Francisco; flags and willows along the borders very thick; some larger cotton-wood; the tap-root of the pumpkin of the plains, three feet by six inches; perennial, apparently.

"November 1.—First day of winter; it came with a freeze, making ice half an inch thick, and reminded us of our giving up the route by Albuquerque, in consequence of fear of snow on the Washitah mountains; marched at the usual hour, quarter to eight, and crossed over to the Gila again, eight miles to upper end of the cañon; here we halted to water and refresh before taking the journey which Carson found to be 60 miles, without water; near this point, there was evidence of a former settlement, but nothing but pottery; their pieces of pottery are very ancient in appearance, from the camp to the upper end of the cañon, the grass was very fine grama, and will furnish at any time fine camps for any number of animals; the grass along the edge of the water on the river grows in a thin strip very luxuriantly; there is usually a thicket of willows, about 10 yards deep, along the borders of the stream; then in the bottom, which is subject to overflow, cotton-woods grow of two and three feet in diameter; this strip is usually 200 or 300 yards wide. We commenced at a quarter to 11 our passage of the hills on the north side of the cañon. Our ascent was rapid, and by an Indian trail; the road very rough. After marching ten miles, we found a spring high up the mountains,

where we watered; and going three-quarters of a mile further, we encamped. One of the howitzers got broken on the road and three mules gave out in them. Lieutenant Davidson and party came in some time after dark, and reported that he had been obliged to leave them four miles behind him. A party of six men was sent out to guard them until to-morrow, and measures taken to have them brought up. The formations near the mouth of the San Francisco, and to the upper end of the cañon, are diluvion, fast turning to stone, overlaying sandstone and limestone of late formation; below this, the black basalt appears in seams and caps among the hills, also, to the northwest, we came upon granite (mostly feldspathic), seamed with basalt in dykes, and intermixed occasionally with other igneous rocks, some indicating the presence of iron in large quantities; near our camp an outcrop of dark-colored slate, capped with pudding stone, which changed to a silicious state—the same substance which forms the cement of the pudding-stone; this pudding-stone would probably make a fine millstone; the dip of the strata is very deep to the west. The vegetation to-day was novel; the cactus (pitahaya) made its appearance; it bears a fine fruit, and is sometimes 30 feet high, has 15 flutes or more, is 2½ feet in diameter, and has an interior structure of hard wood—one for each flute. The agave Americana made its appearance; it bears a fine fruit in the season. The muscal of the Mexicans had bloomed in many cases this year, and died, having fulfilled its century of probation; it was the emblem of 100 years in the Aztec picture-writing. The snow was visible on a mountain 35 deg. east—probably a mountain at the head of Salt River. Southwest from Zuni, a route is said to be open from near this point to Zuni and Cibolletta. A view from the hill-top south shows a plain probably beyond the San Pedro, which probably unites with the low divide between Mount Dallas and Mount Barbe.

"November 2.—Some Apaches (Pinoleros) showed themselves on a hill-top early this morning, and made signals of a desire to hold council; after a good many efforts one was got into camp, and given some presents; then came another, then another, then another, and another, each of whom, in turn, got confidence that we did not design hurting them; they promised to bring a number of mules to trade with us, and furnished

a guide to bring us to water six miles further on our journey, where we agreed to move to, and meet them to-morrow. They seemed to be poor in worldly gear, but are fat enough; they are small men, but finely knit and well muscled, especially in the legs. Our camp has been one of their hiding-places, and they find a secure asylum in these rugged mountains. The high peaks afford fine points for lookouts, upon one of which is always seated one of their number, like the sentinel-crow on the highest limb of the adjacent tree, watching over the safety of his thieving fraternity; their wigwams scarce peep above the low brushwood of the country, being not more than four feet high, slightly dug out in the center, and the dirt thrown around the twigs, which are rudely woven into an oven shape, as a canopy to the house, a tenement of a few hours' work is the home of a family for years or a day; like the wolves, they are ever wandering. The costume of our guide consists of a small cap of buckskin, tied under his chin, covering only the top of his head; a cotton shirt, with no sleeves, upon the back of which he had plastered some yellow paint; then the dressed skin of a black-tailed deer, thrown over his shoulders; his breech-cloth of buckskin, leather leggings from his knee down, connected with his moccasins, forming a sort of boot; a powder-horn over his shoulder, and a pouch belted around his shirt, a fine dun horse and Spanish saddle and bridle, and a gun in a leather case; his hair was long, and had a knot behind like a woman's; his moccasins, as usual, square-toed and turned up; his thighs, which were bare, bore many a scar from the thorny bushes of the country. We broke up camp, and followed our guide about six and a half miles NNW., and found a good camp in a grove of sycamore, with a little water which rises and sinks again within 100 yards. We passed a new species of cactus to-day, a sort of bush with slender stems, similar to one seen on the Del Norte. As usual, when we found one, we found others, a single specimen being not yet met with. In traveling over this region, as well as all prairie countries, the most casual observer is struck with the gradations in the classes of plants, and will instinctively, almost, find himself making inquiries of a botanical sort of his own; the cacti stand alone; but they, in one extreme, approach a shrub; the other, a fungus. The

agave stands at the head of its species, but follow it down, and it will be found of different sorts, until one appears scarce distinguishable from grass. The acacia, from the thorny bush and mesquite, to the sensitive plant, exhibits the same general characteristics. Step a little further, and the infinite variety of the bean and pea stripe show analagous characteristics. All the plants and grasses of this country appear to have a thorny defense. Why they are so protected, I cannot yet discover. No doubt the wisdom of Providence is shown therein. White and blue limestone dip W. Distance, six miles.

"November 3.—The sun rose as usual upon a clear morning quite cool; after breakfast the Pinoleros came in with a few mules, which we bought, at the rate of a blanket, three yards of domestic, a knife, and looking-glass, for a mule. Animals are cheap to people who steal all they have; and they have very little use for them, except to eat, as their country is too rocky to need their animals much to travel about. They brought with them a handsome Spanish boy, taken from his home several years ago; he seemed contented; his master said he liked him too well to sell him, upon the general's offering to buy him. They brought some of the cooked muscal to the general; it tasted something like sweet pumpkin baked, and looked very much like it. Our camp is situated in a deep ravine, with a narrow bottom on the creek; the hills steep on each side, composed of the diluvion of one hundred feet thick, which is composed of the boulders of the rocks which form the adjacent mountains, cemented by silicious sand and lime. The blue and white limestone are specimens of what we found yesterday, containing enimity and other fossils. A squaw had some crystals of metal of yellowish color, but rated them too high for purchase. There is a fine silver mine, it is said, on the San Pedro. The old squaw came into camp arrayed in a light gingham dress, trimmed with lace, no doubt the spoil of some Sonora damsel, who had put all her industry upon this, her fandango dress. The old woman had no pins to fasten it behind, so she soon stripped her arms and breast of the encumbrance, and rode out of camp in a red flannel shirt, which she had got in trade from one of the soldiers. Our howitzers got up this evening perfectly dismantled. Captain Moore set to work and contrived a new coup-

ling, so that we hope to get along better; they have been a complete drag upon us so far. The small wheels are good to prevent upsetting as far as may be, but the smaller the wheels the greater the friction, and a small stone is a great obstacle. The road we had to come is perhaps worse in some places than they were expected to have been taken over; they have several times rolled off a steep place, carrying the mules with them down the hill.

"November 4.—Marched at 8, and took a southwest course, gradually ascending until we could see far over the country to the northeast; the snow-capped mountain was thus to be seen, and at its base it is said there is a route from this place by which the Kiateros go to Zuni. I have been informed that the expresses of the president of Lucson once were in the habit of going to the lower settlements of New Mexico in ten days, probably to Zuni or Cibolleta; the route would probably be northeast from this position; Lucson is about ninety miles southwest of the mouth of San Pedro. We, in our course, within a few miles, passed green hollows between the hills, containing a scattered growth of sycamore, oak, willow, cherry, musquit, senna, cacti, agave, hackberry, ash, walnut, zala, cedar, pine, a dwarf black gum, grape vines, various kinds of grass, lambsquarter (the seed of which the Indians eat), squash and sundry familiar weeds, all showing the signs of autumn, except the live oak and evergreens; scarce any flowers to be seen, all being gone to seed. About six miles from camp we found the rocks outcropping, dip 30 deg. southwest, granite below, with large grains, and entirely disintegrated, and one part of it containing small morsels of other rocks imbedded, then the pudding-stone with round imbedded pebbles about the size of goose eggs, cemented by silicious sand, then black slate; then sandstone; then compact limestone, forming uneven cliffs to the northeast, giving a slope of 30 degrees southwest; on these hills there was a good deal of timber. Our road was rough and rocky; about 12 miles we came to a place where Carson had slept when going up; there we got water enough to drink by scraping the sand; here our howitzers were directed to spend the night, and we pushed on to the river, 12 miles further. Six miles from the river we fell into a valley of a dry stream, which gave us a good road down to the

river; here we fell into another Indian trail, larger than that we were upon; both were fresh signs of cattle lately driven from Sonora. These Indians have now been 17 years living by the plunder of Sonora; when they are required to stop, it will require either money or powder to make them obey. Along the road side we observed in many places that the grass had been burned in little patches; this occurred all along the road; why the cause of it is unknown, probably signals. As we approached the river again, several new species of plants showed themselves; a new cactus, a new variety of the Spanish bayonet, and others of nondescript character. On the Gila we found a few sprigs of the cane. The diluvial beds we first came to as we left camp occur again on the river in their usual thickness in places surmounted by trap, which here again makes its appearance. Where we strike the river is still in the cañon, but below us it is practicable for the wheels; we went up stream half a mile here and found a camp of scanty grass.

"November 5.—Move at 9, and conclude to seek a better camp lower down; our road was still the Indian stealing trail, which we followed down the Gila through the cañon for four miles, crossing the river repeatedly; the high water mark was frequently above our heads on the rocks. There was very little grass in the cañon, a little cane. The road left the Gila on the left bank, and led up a dry ravine east of south for five miles further, it then brought us by the Saddle Mountain, in sight of the San Pedro; course northwest. We then marched on and encamped on the left bank, about one mile above its mouth, on the border of the low hills, where we found plenty of grass; four miles further, the rocks on the Gila were diluvial as we started, thence blue, grey, and various colored basalt; in one place coarse amygdaloid, all with an apparent vertical seam; the rocks generally very compact, with many cracks and rugged surface; a few of them soft and pulverized. On the hill four miles from the San Pedro was a bed of greyish white limestone, then commenced the diluvion again. On the top of this ridge stood the Saddle Mountain, capped with some rock—probably the limestone—but it may be the basalt. The bottom of the San Pedro is one mile broad, and of the character of those on the Gila above, dusty dry soil, grown in places with cotton-woods and willow, in others with

grass, and again mesquite, chapparal, other places bare. It bears the usual signs of habitations of former times—abundance of fragments of pottery; I also found the fragment of a cerulian sea-shell. The vegetation of to-day was the same, much as yesterday; saw some deer, abundance of quail, some ducks, and a pole-cat, and a number of geese and grey rabbits, like those of the United States, but apparently small, and the large grey hare, with black tail and ears.

“November 6.—Remained in camp, awaiting the arrival of the howitzers; obtained some seed of the pitahaya, which were contained in a dried fruit pod two inches large; the hills of diluvion are cut into an infinite number of hollows, on them the cactus and the various kinds of acacia grow in a scattered way, covering one-tenth, perhaps, of the surface, the rest is bare gravel, except one-tenth more, which is taken up with the scattered bunches of grama grass; under the base of these hills the mesquite grows thick for a hundred yards, some of it being trees of two feet in diameter, but low in altitude. Then comes the bottom of the river covered with coarse grass, which abounds on the bottoms of the Del Norte; then comes the willows a few yards, which stand thick along the water in many places, but not more than 12 feet high; the cotton-woods are generally a foot or more in diameter, in irregular groves, not more than 100 yards wide along down the river; the higher hills in the background on each side look half green with the bushes of the creosote plant, and the mountains here are apparently almost bare; the peaks visible from here are not very high. Our route for the last few days has been very crooked, so that had we a straight route we could have come through the cañon in two days, or one and a half instead of four. The chain of mountains continue along on the right bank of the Pedro, so that there would be rough hills to cross from this point to the gap between the Mount Dallas and Mount Dick.

“November 7.—Marched at 8; kept down the left bank of the San Pedro, and crossed the Gila three miles from camp; near the mouth of the San Pedro is a good patch of grass. We kept down the right bank of the Gila until we entered the fifth cañon, where we crossed it frequently, and encamped on its right bank, with scanty grass. About six miles below the San Pedro we

passed a good camp under some diluvial cliff; here, we are told, is about our last grass from this to California. The river is slightly larger here than where we first saw it, although we were told otherwise; it has about 18 inches water on the shoals here, and canoes might pass down it very readily, and good sized boats, if it was not for the round rocks in its bed. The San Pedro, an active man could jump across. Our course was a little north of west; distance 18 miles. The mountains in peaks, composed mostly of basalt, came near to the river; the diluvial beds, indurated into rocks, are torn and broken in every direction, indicating great violence and irregularity in their displacement. There appears to be a subsequent bed of diluvion along here not yet displaced; the bottoms of the river are composed of the usual clay, in a state of powder or dust, and which is undermined in every direction by animals of the rat kind, so that it is unpleasant to man or mule to ride off the beaten track. Along the very edge of the water of the river the grass and other verdure grew luxuriantly; on all else the vegetation was as usual, the mesquite and its kindred plants, and the creosote covering the mountains to their tops; no trees visible on the mountains. Signs of the wild hog, and the deer, and the turkey were numerous; the wild goose and the raven (our constant companion), the red bird, the quail, and a small bird resembling the ortolan, the butterfly and the grasshopper were about all the animate objects we saw. Some Apaches from the neighboring mountains came to a tall top and hailed the column, and Captain Moore succeeded in getting them to camp; they could talk but little Spanish, and appear to have a vernacular different from those we have seen before; they dress partly in Spanish costume. One of them told me the hole in the point of the toe of their moccasins was to let out water; they encamped with us, not forgetting to beg tobacco. Our road to-day was strewn with pottery as usual, wherever the ground looked as if it could be irrigated. The pottery was mostly plain red earth; occasionally a piece was seen black and white, similar to those on the San Pedro; I could see no foundations or any other certain traces of houses. Our road was an old Indian trail all day, and, from some point along here, by striking to the San Francisco, the hills of 2d November and following may be avoided; water may be want-

ing; but these Apaches point to the hills on the north side of the Gila as their homes. The country within six miles of the mouth of the San Pedro and down the Gila to this point contains about 16 sections of land, which, by irrigation, would produce well; the hills afford but a very scanty pasture.

"November 8.—It rained quite hard upon us last night; the general gave orders to start an hour later to-day, that the men might have time to dry their blankets; as they are without tents, of course they were very wet. Marched about 9, taking leave of our Apache friends, who promise to bring mules to our camp to-night, to trade for blankets, etc. Our route to-day led down the cañon—a road impassable, of course, in high water, as we had to ford the Gila some dozen times. The most of the way, the hills or mountains on each side of the river were composed of a beautiful granite, seamed with basalt (or trap dykes), and seams of quartz; in places, too, the granite contained layers of foreign matter, either caused by a different aggregation of particles or actually a foreign stone, imbedded. Our direction was pretty near west; as we progressed, we came to the diluvion again, composed, as usual, of fragments of the adjacent rocks; in places, it was much upheaved; in others, it had not hardened into stone, and rested as it was deposited; the caps of the hills near the west end of the cañon are of basalt, in some places apparently resting upon beds of diluvion. We marched only about 14 miles, and encamped at the last grass on the road from this to California. They tell us there is none; this is very scant, and could not well be worse. We passed several places to-day, where we could get as much for our animals as here; and there is an old trail down the cañon. Near our camp, we found broken pottery, but none ornamented—all red. There is but little ground in the cañon capable of producing any grain by cultivation. Our camp is on the right bank. Before, as westward, is a high and peculiar hill, capped with basalt and with precipices; on the north and south side, sheer perpendicularly many hundred feet. The mountains, in every direction, are shapeless ravines of igneous rocks, with scanty growth of low bushes covering their sides, and grass apparently wanting. The badger, the raven, the duck, the goose, the deer, the rabbit, show their signs. We met a ter-

rapin to-day, which is probably the terrapin gopher of the south of the United States. In our camp is the remains of some habitation, a pottery, etc., and the ruins of an elliptical wall, 72 by 48 feet, nothing remaining but the round boulders, one and two feet in diameter, which formed the base, probably, of the wall. Distance, 14 miles.

"November 9.—Marched about 8, and passed the end of the cañon through an opening in the rocky hills truly grand. On the right and left, the cliffs overhung us hundreds of feet, composed of basalt on one side, and amygdaloid; apparently, the diluvion affected by combining with some other substance, and appeared to be an angle of 45 deg. dipping east; the mountain on the left bank was composed of this, and the seams in it showed the exertion of a remarkable force. In one place, a crack in the mountain had formed a wedge-shaped mass, which had slipped down in the opening crevice, and was perhaps 50 feet below its proper position. West of it was a peak of basalt, and on the right bank of the river granite made its appearance, but in low hills. After coming out of the cañon, the signs of former occupation increased; an extensive plain country opened upon us, which extends, probably, to Salt River, which is about 15 miles north of here. About 12 miles from camp, we came upon a fine spot of grass, one mile from the river, where we nooned; all the rest of the plain was naked, except the mesquite, creosote, and other bushes, which covered perhaps one-third of the land. About our nooning place, the vast remains of a settlement commenced, which reached to our camp, three miles; the ground was strewn with pottery. The camp was near a vast profusion of pottery. I found a beaver tooth on the ground, and remains of seashells; the ground about the houses is always strewn with broken pieces of flint rocks, of a few inches in diameter. We encamp in soda grass, quite abundant, running a mile or more along the direction of the road.

"November 10.—Marched about 8, and after marching six miles, still passing plains which had once been occupied, we saw to our left the 'Casa de Montezuma.' I rode to it, and found the remains of the walls of four buildings, and the piles of earth showing where many others had been. One of the buildings was still quite complete, as

a ruin. The others had all crumbled but a few pieces of low, broken wall. The large casa was 50 feet by 40, and had been four stories high, but the floors and roof had long since been burnt out. The charred ends of the cedar joist were still in the wall. I examined them and found that they had not been cut with a steel instrument; the joists were round sticks, about four feet in diameter; there were four entrances—north, south, east and west; the doors about four feet by two; the rooms as below, and had the same arrangement on each story; there was no sign of a fireplace in the building; the lower story was filled with rubbish, and above it was open to the sky; the walls were four feet thick at the bottom, and had a curved inclination inwards to the top; the house was built of a sort of white earth and pebbles, probably containing lime, which abounded on the ground adjacent; the walls had been smoothed outside; and plastered inside, and the surface still remained firm, although it was evident they had been exposed to a great heat from the fire; some of the rooms did not open to all the rest, but had a hole a foot in diameter to look through; in other places, were smaller holes. About two hundred yards from this building was a mound in a circle, a hundred yards around; the center was a hollow, 25 yards in diameter, with two vamps or slopes going down to its bottom; it was probably a well, now partly filled up; a similar one was seen near Mount Dallas. A few yards further, in the same direction, northward, was a terrace, 100 yards by 70. About five feet high upon this, was a pyramid about eight feet high, 25 yards square at top. From this, sitting on my horse, I could overlook the vast plain lying northeast and west on the left bank of the Gila; the ground in view was about 15 miles, all of which, it would seem, had been irrigated by the waters of the Gila. I picked up a broken crystal of quartz in one of these piles. Leaving the 'casa,' I turned toward the Pimos, and traveling at random over the plain, now covered with mesquite, the piles of earth and pottery showed for hours in every direction. I also found the remains of a sica, which followed the range of houses for miles. It had been very large. When I got to camp, I found them on good grass, and in communication with the Pimos, who came out with a frank welcome. Their answer to Carson, when he went up and asked

for provisions, was, 'bread is to eat, not to sell; take what you want.' The general asked a Pimo who made the house I had seen. 'It is the Casa de Montezuma,' said he; 'it was built by the son of the most beautiful woman who once dwelt in yon mountain; she was fair, and all the handsome men came to court her, but in vain; when they came, they paid tribute, and out of this small store, she fed all people in times of famine, and it did not diminish; at last, as she lay asleep, a drop of rain fell upon her and she brought forth a boy, who was the builder of all these houses.' He seemed unwilling to talk about them, but said there were plenty more of them to the north, southwest, etc. He said when he first knew this casa, it was in better preservation, but that it had been burnt too long ago for any of them to remember. I showed him the hieroglyphics, but he did not understand it. Some other Pimos and Coco Maricopas arrived, and messengers were sent to their village to buy watermelons and provisions, which soon came, although it was several miles. They wanted white beads for what they had to sell, and knew the value of money. Seeing us eating, the interpreter told the general he had tasted the liquor of Sonora and New Mexico, and would like to taste a sample of that of the United States. The dog had a liquorish tooth, and when given a drink of French brandy, pronounced it better than any he had ever seen or tasted. The Maricopa messenger came to ask the general what his business was, and where he was going. He said that his people were at peace with all the world, except some of their neighbors, the Apaches; and they did not desire any more enemies. He was, of course, told to say to his chief that our object was merely to pass peaceably through their country; that we had heard a great deal of the Pimos, and knew them to be a good people. We were all struck with their unassumed ease and confidence in approaching our camp—not like the Apaches, who bayed at us like their kindred wolves, until the smell of tobacco and other (to them) agreeable things, gave them assurance enough to approach us. The Pimos and Coco Maricopas live alongside of each other, but are distinct people, speaking different tongues. The latter once lived near the mouth of the Gila. The Pimos have long lived at their present abode, and are known to all the trappers as a virtuous and industrious peo-

ple. They and the Maricopas number over 2,000 souls. At the river, I saw a cinder, which might have been from the smelting of some ore.

"November 11.—The Indians are still in camp, with their melons, corn, beans, and petiza molasses; they spent the night in our camp, by the camp fires, without sleeping—talking and laughing incessantly. The interpreter of the Maricopas told Mr. Emory this morning that he could take him to a house north of the Gila larger than that we saw yesterday; being invited to go, I went, and found no house, but a mound 50 yards by 30, about 6 feet high, with loose basaltic rocks covering it; four slopes on top was loose stones, dirt and pottery; around this, on the east side, a sort of low terrace, 100 yards on that side and 20 yards wide, terminated by loose stones, some of them set on edge. The mound ranged with the points of the compass; and, from the top of it, the whole adjacent country could be seen. In the vicinity, northwest, was a broad hole, surrounded by a mound similar in size and appearance to the well of yesterday, evidently once excavated, and filled up again. In the ruins, the guide said, ornamental stones, in vessels, were sometimes found after a rain; these the Pimos prize as ornaments, but cut them smaller. I found a small sea-shell, perforated, which had been worn as an ornament; other relics were picked up by Lieutenant Emory's party. The guide and other Indians informed me that on Salt River the ruins of these houses are more extensive; that an old scacia is there yet plain to be seen many miles in length, and in every direction there are houses, some of them still standing lofty. This account has been given by various trappers, one of whom reports the old scacia 30 miles in length. We returned toward the village, and found the camp in some of their corn-fields, which are separated by fences, and are all cultivated by irrigation, apparently with care; the cotton was still standing in some of the patches, but the frost had killed everything. The general had a talk with Ivan Antonio, the chief, and was welcomed by him; the people soon filled our camp, trading went on, and we got provisions enough, but only one beef and no mules; two thin mules being disdained for one fat one. The Indians, although they were crowding about our tents, and everything was exposed to them, made no effort to steal anything.

"November 12.—Awoke this morning to hear the crowing of the cock and the baying of the watchdog, reminding me of civilization afar off in the green valley of our country; we waited until 9 before starting; left some mules with the chief, Don Antonio, whose Indian name is Banbutt, and marched down through the settlements of the Pimos and Coco Maricopas, which are all south of the Gila, and encamped beyond them (distance 15 miles), under the base of a mountain lying west of the villages. The houses of these Indians are all built alike; a rib work of poles 12 or 15 feet in diameter is put up, thatched with straw, and then covered on top with dirt, in the center of this they build their fires; this is the winter lodge; they make sheds with forks, and cover them with flat roofs of willow rods for summer shelters. The heat is no doubt very intense here in summer, so that at midday one could scarce venture out on the soil barefoot. The Indians exhibit no symptoms of taciturnity; but, on the contrary, give vent to their thoughts and feelings without reason, laughing and chatting together; and a parcel of young girls, with long hair streaming to their waists, and no other covering than a clean white cotton blanket folded around their middle and extending to their knees, were merry as any group of like age and sex to be met with in our own country. The Pimos and Coco Maricopas have only recently got together. The fable of the Pimos is, that their first parent was caught up to heaven, and from that time God lost sight of them, and they wandered to the west; that they came from the rising sun; the others found themselves on the Colorado, and have since gradually got here by following the Gila. They are evidently a different race, speak entirely different tongues, but have adopted the same costume, and apparently the same habits; their houses are alike, and they unite in good principles. The chief of the Pimos said to the general, that God had placed him over his people, and he endeavored to do the best for them; he gave them good advice, and they had fathers and grandfathers who gave them good advice also; they were told to take nothing but what belonged to them, and to ever speak the truth; they desired to be at peace with everyone; therefore would not join us or the Mexicans in our difficulties.* He shook hands with and bid us welcome; and hoped we might have good luck on our journey. He said we

would find the chief of the Maricópas a man like himself, and one who gave similar counsel to his people. On our road, the interpreter of the Maricopas said the flat land we could see across the Gila, toward the mountains, through which debouch the Salt and San Francisco rivers, is filled with ancient ruins, and that some of the houses are still standing; that their people know nothing of the builders of them. Our route lay through the plain, overgrown, when it was not cultivated, with *Frémontia* or mesquite, etc. A string of cotton-woods border the river, and throughout the country there are no other trees. The road was dusty and dry; our camp in an extensive pasture, reaching for miles under the mountains. The vast number of people who once lived in this country, as shown by the ruins, proves that, by irrigation, it might sustain a numerous people; but its resources will not be called into play by our people until thousands of acres of unoccupied land has been taken up elsewhere unless this should get a value as a highway between the two oceans—a thing no doubt perfectly favorable, if a man of capital and energy should undertake to open a route between Galveston and China. The long hair of the men of the Pimos and Coco Maricopas is remarkable, reaching to their waists; they put it up in twist, and coil it over their heads at times, at others it hangs down the back; it is cut straight across the forehead in men and women, and protects their eyes from the sun. The men and women both have long hair, but the men the longest; they sometimes put it up as a turban, with mud; it grows very thick.

"November 13.—Laid in camp until 12, preparatory to taking the journey of 40 miles without water. The second chief of the Coco Maricopas visited the general, the first being lame; he said we had seen his people, that they did not steal; they were probably better than some the general had seen; all his people had sold us provisions, it was good to do so, as people should exchange when they had articles to trade; but if we had come here hungry and poor, it would have been his pleasure to give us all we wanted without compensation. Afterward the first chief came in, and offered like expressions of friendship and peace. For want of an interpreter, an old woman with a fine countenance was taken; she had half a watermelon in her arms, and was

naked, except a cloth from her waist to her knees—a state of nudity which would seem inconsistent with modesty, but here she proved that modesty is independent of refined taste, for she took upon herself the office of interpreter, and performed it reluctantly, but with a very becoming modesty of manner. After making the chief a small present, we prepared to start, bringing our animals up and watering them at a well which we had dug, some of them drinking three pails full of water, as if in anticipation of a long reach without it; we started at 12 to cross the Tesotal, or forty miles without water or grass. Our route lay to the south of the mountains, below the Pimos, on the south side of the river Gila; for the first two miles we had a grass plain of salt grass, the ground in places crusted with salt and occasional pools of water. As we rose the slope of the higher ground we found the gravel of a disintegrated granite, but no granite *in situ*, which was our footing for many miles, bushes and pitahaya growing upon it, but no grass. After progressing four or five miles, the eye turned back, took in at a glance the vast plain, the mountains on the San Francisco, the Salt River, and the mountains toward Tucson, limiting, except in a few gaps, the southeast, where it was bounded by the horizon. This plain had once been the home of a mighty people, whose existence is ever a fable to the present dwellers on the soil. We continued our march west, and laid by at dark, and tied our animals fast to the stink-wood bushes, for there was no grass; here we rested until 3 o'clock in the morning.

"November 14.—When we saddled by the light of the moon and set out, the air was very chilly until sunrise; we passed a gap in the mountains, and emerged about sunrise upon another vast plain lying toward the Gila, with a mountain at some distance on either side; the sun produced wonderful effects with mirage; at the distance of the limits of the horizon, domes, walls, palisades, steeples, houses and lakes were exhibited to us. About 10 o'clock we came to the river, and found our animals more anxious for grass than water, some of them did not drink. Along this stretch there is no growth but bushes and cactus, even a bait of grass could scarce be found, although there were places where grass had tried to grow, and failed for want of rain. If a contrivance for producing rain is ever put to test, neces-



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sity will invent it here; the idea is not absurd of making a rain—I have done it. After stopping at the river for a while to water, we marched down about four and a half or five miles and encamped on good grass half a mile from the river, the distance $44\frac{1}{2}$ miles, the road firm and plainly marked, evidently very old. Near where we struck the river is the sign of an Indian village, but it is evidently recent, probably one of the stopping places of the *Coco Maricopas* on their progress up the river; they were here in 1827, when Dr. Anderson passed to California, and furnished him with guides. The camp we left 15 miles below the *Pimos*, Dr. Anderson calls the *Salineta*; the end of the *Jornado* he calls *Tesotal*. The mountains here, as elsewhere in this country, stand off in scattered peaks, scarcely taking any ranges; some peaks to the northwest of us are apparently very high.

"November 15.—It rained on us quite briskly last night—the second rain since we left *Santa Fé*; the storm-cloud made its appearance in the northwest, on the mountains; the wind southeast; so it is probable the mass of the rain lay to the north of us. We may find it to have watered the desert on the north side of the *Colorado*; lay by all day to give our animals a chance to recruit a little; killed a beef in the evening; we have two left, not being very successful in buying them from the *Pimos*; instead of eight, we got four; they were unwilling to sell them for anything but beads. I forgot to ask the *Pimos* for numerals beyond 10; but I have never yet seen a tribe (I have seen hundreds) which did not make use of decimals, compounding all higher numbers from 10, as we do; whether this refers to the first invention, or to the natural digits, I know not.

"November 16.—Marched at half past 8, and continued down the river, the road being still an Indian trail, old and well beaten, through the alluvial bottom of the river, which, instead of being a black loam, moist with water, is here, as we have found it all along, still a bed of dry dust off the road, burrowed in every direction by field-mice, making it uncomfortable for man or beast to leave the beaten track; the country thinly covered, as usual, with mesquite bushes, stink-wood, etc., and the bare places—three-fourths of the land—destitute of all vegetation. We passed, about nine miles out, a little grass in a dry

slough; and 12 miles out, we found enough of coarse grass to halt to noon upon; about two miles from the river, a little below this, we crossed a rocky ridge composed of limestone, capped and cut up with igneous rocks, and altered in its nature in places, showing that portions of it had once been rendered into quick lime, and now changed again into a substance resembling old mortar; this ridge had peaks upon it of various kinds of volcanic rock, and west of it the upper plain had been covered with a black seam of basalt for many miles. Above this, on the north side of the river, there is a mountain peak of volcanic rock standing between two peaks formed by the beds of igneous rocks which it has split asunder and upheaved, as it rose from the great internal reservoir of heat. The road was lined with the remains of ancient houses, the broken stones and pottery being the only indications for nine miles. I followed this line of houses. In many places, quantities of sea shells, broken, were to be seen; and I found two or three shells which had been changed in shape, for some purpose of ornament. Of the pottery, a few pieces, only, were colored. After crossing the ridge, we came to a small hill of volcanic rocks, upon which the Indians had marked, in a rude manner, a vast number of hieroglyphics. The place is frequented still by Indians, as their marks were still visible, and places where they appear to have ground corn, or made medicine. A few miles further brought us to the river, where we found no grass, but plenty of cane along the border of the stream. The country we have passed over to-day affords no pasture, but a great quantity of land capable of producing by irrigation. It never rains here in summer time. Query—why? Our camp is opposite to a blue basaltic peak, with nothing but an occasional tuft of something like grass upon it, and that in streaks down its sides, as if the seed had followed the streams of rain, as they flowed to the level. Distance, $20\frac{1}{2}$ miles.

"November 17.—Marched at 8, and continued down the left bank; our first two miles through a deep sand, the former bed of the river; very bad traveling; we crossed a small dry dusty bottom, and came to a creek, in the bed of which we found a good deal of grass; we halted to graze the animals a few minutes and then ascended the basaltic beach about 50 feet high, and did not see the river for seven or eight miles. Here, again, on

the alluvial bottom, we found some tufts of grass, where we nooned it for half an hour, and then came to camp, about, distance, 18 miles, with a good deal of hunting along the river, the brush being quite thick. We got a camp on both sides of the river, with a very small allowance of grass and cane. We weather out, however, and remain till morning; to get this camp, we had to leave the trail. The course of the river here appears to be west southwest. On the right bank of the river, this evening, there appears to be a very extensive alluvial plain, reaching for miles from the river. No evidence of former habitation was seen. There were on some of the volcanic rocks which we passed, some marks like those of yesterday. About mid-day, we saw some old trail roads leading south. A deer was killed by one of the servants, and Carson caught a beaver; a hare crossed our path; a few little birds; the ravens, as usual, and a number of flocks of geese and ducks were all the animate objects we saw; the land might produce grapes and grain, but the people of this region will not be ever able to keep cattle unless rains are produced, for there is literally no pasture; a scanty camp may now and then be found. If we were supplied with boats, we could easily float to the mouth of the river. There is no timber here, however, out of which a canoe could be dug. Our road was rocky and rough to-day in many places.

"November 18.—Marched at a quarter past 8, and passed close to a rock of basalt, upon which various Americans had scratched their initials and names. This point Carson called 'Independence Rock.' Here there had been a little grass, which had been grazed off. We traveled 16 miles, and found a good nooning place in a slough, which we left for the rear, and came on over the table-land for 10 miles, and encamped on the left bank of the river, at a scanty camp in a slough, containing pools of water saturated with salt. Distance, 20 miles west southwest. The belt of table-land here, from mountain to mountain, is about 15 miles, with plains running up between the peaks. This table-land is composed of small pebbles of all the rocks I have seen on the Gila, very much rounded by attrition. These are cemented by carbonate of lime into a concrete about as hard as what would be made by common mortar. The peaks on both sides

of the river are very rugged, particularly on the north, one of them looking like a large city on a hill three or four miles below our camp. On the plain near the Gila, is a black pyramid of basalt, standing isolated, and about 300 feet high. On the high plain, we found little tufts of grass under the bunches of *Frémontii*; the country almost bare, and only an occasional mesquite tree, and no tree on the mountain. On the plains of the river this morning, saw some sign of former habitation, but very little; two of our mules were abandoned to-day.

"November 19 (Thursday).—Awoke at day-dawn, as usual, and found ice half an inch thick, and the air very cold. We climb the table-bench again 30 feet, and travel until we gradually get into the bottom of the Gila again, at the point of Bighorn Mountain, where Carson shot a doe of the Bighorn or mountain sheep. This animal had the face of a sheep, but with very short hair all over; its horns were like those of the common wether; its color in the face, like the face of a dun cow; back and sides reddish grey, and the buttocks white—the white running down with a distinct line of demarcation to the hocks. The animal probably weighed 70 pounds; it had a very short tail, about two and a half inches; the foot very like a sheep; several of the males showed themselves on the cliffs, up which they climbed with great facility; their horns were very large, and their appearance much different from the female; it is said their horns sometimes weigh more than their bodies. The mountain upon which they disappeared is a coarse amygdaloid of granite and sienite, the current of which was a sort of granite, probably the debritus. West of this point, there were strata of dark-colored slate, alternately with sandstone and coarse granite amygdaloid (their strata and their laminal); the fields very much broken; at one point dipping south; a hundred yards further, dipping west, and again vertical; the mountain range was narrow, and ran off southeast; and beyond, in that direction, it appeared to change in character. The diluvion was the same as yesterday, except that west of the Bighorn, it had more sand, which, in places, had drifted into heaps. Distance, 19½ miles, west southwest. Encamped on abundance of coarse grass, in what recently had been the bed of the river, the channel being now a few hundred yards north; the

bottom of the river abounded in places incrustated with salt, and grown with a vegetable with round pulpy leaf, peculiar to the salt plains. The same has been the case since we lost sight of former habitations, rendering it probable that this land will not produce by cultivation. Off the salt plains, the vegetation was very much the same as above, but a little thinner; no timber on mountain or hill; in fact, Bighorn did not support a shrub; the cotton-wood on the border of the Gila, being the only apology for trees, and none of them very large. In 1771, a Franciscan friar (Padre Garc ez) describes the Gila as fringed with plenty of young cotton-woods, so that he could hardly see the river. We passed a little cane in a slough east of the point of the Bighorn, enough for a dozen animals or so; which is the only place where anything could halt for a single night, except this. Several of our animals fell far to the rear in coming to camp, and the only one of our beef cattle left was not to be found this morning. From this out, then, our food must be peas, beans and corn, with mule-meat, if we should find it necessary to come to that.

"November 20 (Friday).—The morning cool; ice formed in our vessels; Captain Moore reports that one of his sick men had fallen to the rear; orders were given to start one hour later than usual; the man came up in the night; marched at a quarter past 9, and ascended the diluvial bench, which we found very sandy; and off to our left, in the southeast, we could see a very long sand-heap, laying near the van of Bighorn Mountain; the plain reached to the south and northwest, to the limits of the horizon, in places; in others, intercepted by mountain peaks, which stood upon the surface, as if built, although fantastic in shape, steep and rugged; the road was loose and hard upon the animals—the pebbles and sand. We got into the bottom of the river about six miles out, where we found the traveling very bad, on account of the dry dust and brush. Encamped about three-quarters of a mile from the river, opposite a number of salt lakes, which were very miry; our animals, several of them, got in, and one tired mule did not get out. The difficulty of finding the river kept the men late in the night before they got through with getting water to cook with; these salt lakes would not suit. Ducks and geese abounded. Distance, 16 miles. About

six miles out, where we descended the diluvion, we passed a mountain of greyish basalt, and some evidence of displaced strata of coarse slate and amygdaloid at the base. We are approaching the Colorado, and hope to find it within 40 miles. Our animals begin to show the effects of the hard service, and many of them no doubt are destined to leave their bones to bleach on the desert west of the Colorado.

"November 21 (Saturday).—Marched at the usual hour, our animals looking bad, from the effects of cold and the salt water which they drank. After marching seven miles, we came to the river, and watered. Along it, at this point, opposite to a four-turreted point of the mountain, on the north side, there appears to be all along the river a fair prospect for a camp; three miles further, and we came to a bottom in which we found a fine camp for this country. Grass enough for a halt, and the general determined to lay by for the day. The thickets on the Gila here are very difficult to get through at first, but the brush being Fr montii, and mostly dead, is not hard to break away. The cotton-woods on the river are on an average one foot in diameter, and 25 or 30 feet high. The road was bad to-day, impeded with loose stones of a sort of species changing to mica slate. The mountains to our southwest are composed of a loose-grained granite, which is so friable that it forms grottos, or oven-shaped cavities in its sides, the roof of which has the form, in many cases, of the regular arch, which, in fact, would suggest that improvement in architecture, if it had not already been discovered. The granite is composed of a superabundance of quartz and mica.

"November 22 (Sunday).—Marched at the usual hour, and continued down the Gila. On the left bank, the first eight or nine miles, the road was rough; passed through a ca on; the ca on was wide, but we had to clamber along the edge of the hills; in many places, the road was insecure, from its being a long declivity. After leaving this ca on, we found ourselves in a bottom which lay to the west, and which proved to be the delta between the Gila and Colorado; we marched about twenty-one miles, and found ourselves near the junction of those rivers. We here discovered the greatest abundance of recent signs of horses, and began to think in truth that General Castro may have returned from Sonora with

a large mounted force, to regain possession of California. The signs proved to be very fresh, and indicated that to whom they belonged they were not more than half a day off. The speculations of course were various, and all the knowledge of sign-studying put in practice. Carson went down the river and discovered fresh signs of fires of half a dozen messes, with no military regularity, and a trail coming from the crossing, half a mile wide, indicating a great number of loose animals. No trail could be discovered leading away from this place; the signs of a very few men could be seen, a woman's track was found, a dead colt, colt tracks, and finally, straggling men were seen. Fires were discovered in the bottom up the Gila, and Lieutenant Emory went with 20 men to reconnoitre them, and found the camp of a party of Spaniards from California, with 400 or 500 animals, going to Sonora; he brought some of them to camp, and, as usual, they lied so much that we could get very little out of them. One of them told us, in confidence, that we would find 800 men in arms at the Pueblo opposed to the Americans, and that a party was at San Diego friendly to the United States of 200, and that three ships of war, he heard, were at San Diego, and advised us to be on our guard as we advanced. One of the others said the Mexicans were quiet at the Pueblo, and that the Americans had quiet possession of all the country. They were dismissed for the night; and the general determined not to lose so good a chance to get fresh animals. Camp on dry grass, in the sand hills.

"November 23 (Monday).—The Mexicans came to camp on poor animals, and said they had no very good ones; they evidently are disposed to be shy and uncommunicative; one of them, who reported in confidence about the 800 men at Angelos, tells us that they had killed several Americans at the Pueblo. They say the Jornada is 50 miles without water; that they were lost upon it, and found water half way by accident. One of them was caught by Lieutenant Emory with a bundle of letters, some of which were to General Castro; one giving an account of the rising of the Mexicans, and placing one Flores at their head, at the Pueblo de los Angelos; another letter, to a different person, was to the effect that 80 Mexicans (cavalry) had chased 400 Americans at the ravines (corbean?) between the Pueblo and San Pedro, and had driven them back, and had captured

a cannon called the Teazer. The letters being opened, were resealed by Capt. Turner, and all returned to the man, who was discharged. These fellows tell various stories about the ownership of the horses; they all acknowledge that a part of them belong to General Castro. We are encamped one mile and a half south of the junction of the Gila and Colorado; these two rivers join together and run through a stone hill, through which they have broken a passage, although there are bottom lands on either side of the hill by which they may once have flowed; the place is remarkable, and being the junction of two important rivers, both of which are to a certain degree navigable, this point being also a point in the route from Sonora to California, may one day fill a large space in the world's history. The Colorado disappears from here in a vast bottom; the last we can see of its cotton-woods is in the southwest, beyond which lies a low range of mountains, whether on the right or left bank, is not plain, probably on the right bank. Toiling about through the sand hills in thick boots, one is convinced that to perform a journey on foot in this country, a moccasin, with a thick but elastic sole, is far preferable to the boot. The condition of our animals is sad enough to take the Jornada. Poor animals, they have come with us from the United States, will lay their bones on the desert; some of the few horses we brought through are not able to go on; an animal fat, and well rested in New Mexico, could have come through. It is necessary in this country of loose stones to look at least once a day into the feet of shod animals, otherwise you may have them lamed by a loose stone getting in the shoe.

"November 24.—Completed our trading with the Mexicans; Captain Moore's men being in part remounted on wild horses, on which never man sat, they got, of course, many tumbles, but they stuck to the furious animals until they succeeded. One old Mexican said, 'Why those fellows can ride as well as us, if they had good horses; they are not a bit afraid!' We got off about 10 o'clock, and marched about ten miles to the river, and encamped on the sand bar, the willows being about 10 feet high and thick, with a good deal of grass mixed with their roots; the river is perhaps one-third of a mile wide, and about four feet of water in the channel; its color is like that of the Arkansas at Fort Smith, and

resembles that river where its banks are lowest; the banks of the Colorado are about six feet above the water now low. The bottom on the river here is about ten miles wide, and much of the land could bear cultivation; it is all now overgrown with almost impenetrable thickets of willows, mesquite, *Frémontia*, etc. We did not dare to let our animals loose, as we could not hope to see them again. We followed the trail of the horse drovers, and found four animals which they had lost, two of which we secured; but the others got off before our New Mexican arrieros could lasso them, they not being so expert with the noose as the Californians. The mare we took soon was carrying a dragoon about; the other, a colt, we design for food, as we are now without meat. The Colorado would at all seasons carry steamers of large size to the future city of La Vaca, at the mouth of the Gila. A few geese and brant were to be seen on the river.

"November 25.—Marched at a quarter past 9. and crossed the river, Carson having found the ford for us; we all got over safe, but the water was deep for small mules; it being cold, the mules had to be kept in motion after getting over, for they were disposed to roll in the dry sand. We found the thicket on the right bank much more dense in places than on the left."

Capt. A. R. Johnston, the writer of the above journal notes, was an aide-de-camp to Gen. S. W. Kearney. In an action with the Californians, at San Pasqual, on Dec. 6, 1846, he was shot through the head and instantly killed.

This column, under Gen. Kearney, continued its harassing march westward after leaving the Colorado River, learning that Commodore Stockton had taken possession of much of the country in the name of the United States. On December

5 Gen. Kearney was informed that the enemy was in force nine miles distant. After marching two miles farther he encamped and prepared to attack at daylight on the 6th. At two o'clock a. m. the column was in motion, with Capt. Johnston in advance with twelve men. As soon as the enemy was discovered a charge was ordered and executed with great gallantry, resulting in a hand to hand contest with a largely superior force. In a short time the enemy was completely routed. In this engagement the United States troops lost eighteen killed on the field and thirteen wounded. Among the killed were Capts. Moore and Johnston, and Lieut. Hammond of the dragoons and among the wounded Gen. Kearney, Capts. Gillespie and Gibson, Lieut. Warner and Don Antonio Robideau. The loss of the enemy was much heavier. Another skirmish was had December 7, but the Californians were again routed. The commander of the Mexican forces, which greatly outnumbered the Americans, and seemed constantly increasing, was Gen. Andreas Pico. On the 10th the enemy attacked the American camp, hoping to stampede their animals, but failed. Late on the evening of the 10th of December a detachment of 100 tars and 80 marines, under Lieut. Gray, sent out to meet Gen. Kearney, by Commodore Stockton, of San Diego, arrived, bringing much-needed assistance in the way of provisions and clothing, and putting at rest any further fears as to the success of the expedition. The enemy, thus completely surprised, abandoned most of his cattle and fled precipitately from the vicinity. On the 11th of December the Americans entered San Diego and were warmly welcomed. Later they took an active part in the movements which, in the end, added a large territory, including Arizona and California, to the United States.



CHAPTER X.

MILITARY AFFAIRS—OCCUPATION OF FORT YUMA BY AMERICAN TROOPS—WHIPPLE BARRACKS—
ESTABLISHMENT OF MILITARY CAMPS AND FORTS—DESIGNS OF GEN. KEARNEY—HIS BLOODLESS
CAPTURE OF THE RIO GRANDE VALLEY—HIS SPEECH TO THE PEOPLE—LIEUT. SCHOONMAKER
OCCUPIES TUCSON—MEXICANS CLAIMED A GREAT VICTORY—COL. COOKE ALSO OCCUPIES
TUCSON—VOLUNTARY EVACUATION BY THE AMERICANS AND RE-OCCUPATION BY THE
MEXICANS—FINAL SURRENDER OF THE COUNTRY BY THE LATTER—BOUNDARY
SURVEY UNDER DIFFICULTIES—FLIGHT OF THE TROOPS AT THE COMMENCE-
MENT OF THE CIVIL WAR—ATROCITIES OF THE APACHES—BLOODY
STRUGGLES—APPEARANCE AND SUCCESS OF THE CALIFORNIA VOL-
UNTEERS—DESPERATION OF THE INDIANS—ARIZONA VOL-
UNTEERS—END OF THE WAR—THE NATIONAL GUARD.

The Territory of Arizona, from the earliest time, has been the theater of important military movements, the most of which have been made to suppress Indian depredations. The leading military movements which had for their object the search for treasure, the acquirement of territory by conquest or the subjection of the Indians, will be treated of elsewhere in this volume. What Arizona had to do in the Mexican and Civil wars will be described in this chapter.

Soon after the treaty of Guadalupe Hidalgo, in February, 1848, Fort Yuma was occupied by the United States troops. All that part of the Territory south of the Gila, having been acquired by the Gadsden Purchase, in December, 1853, was taken possession of by the Government of the United States in 1856, when Tucson and other posts were evacuated by the Mexicans. Notwithstanding the fact that the United States acquired that part of Arizona north of the Gila River by the treaty of Guadalupe Hidalgo, no attempt to station troops there was made until December, 1853, when Fort Whipple was established, twenty-four miles northeast of Prescott, at what was then Postal's Ranch, and was removed in May, 1854, to one mile northeast of Prescott,

and became the headquarters of the military district of Arizona.

Whipple Barracks, Arizona, is on the left bank of Granite Creek, one of the radicles of the Rio Verde, half a mile above the town of Prescott, Arizona Territory.

It was established in 1864 as the headquarters of the District of Arizona. It originally consisted of a rectangular stockade, the walls of which formed the outer wall of the various buildings inclosed in it. It was built of strong, undressed pine logs, the crevices being filled in with mud, and the roofs of all the buildings shingled.

This post was formerly the Headquarters Department Arizona (which was a military department including New Mexico, Arizona and a small portion of Southern California), but in 1887 these headquarters were removed to Los Angeles, Cal., leaving, however, the post garrisoned as before.

Whipple Barracks is quite an historical point. In former days, with the Apaches on the east and Hualapais and other Indian tribes on the west and north, troops were constantly engaged in protecting lives and property. These Indians were very active in their hostility, attacks upon settlements in the neighborhood or on travelers on the

roads, being of constant occurrence. In more recent years troops have been called from this post for the various duties pertaining to frontier service, including the protection of railroad property during labor troubles, and a constant guarding and supervision of neighboring and oft-times depredating Indians.

The post, at present, is the headquarters of the 11th Infantry, United States Army, Col. Isaac D. De Russy in command, with four companies of his regiment. This regiment has seen almost constant frontier service since the late war, and its Colonel (one of the youngest in the army for his grade), is of a renowned military family in this country, and has himself encountered all the different phases of army life, including the war of the Rebellion and the numerous vicissitudes incident to a soldier's career in the West.

In 1856 Fort Breckenridge was located at the junction of the San Pedro and the Nevaissa rivers but was abandoned in a short time owing to its unhealthful surroundings. It was not re-established until 1873, when it was located about two miles from the summit of Mt. Graham, on a plain about fifteen miles wide by more than one hundred miles long.

Camp Mohave was established in 1858 to suppress the Mohave Indians, which had the year previous committed many depredations on emigrants. In May, 1861, it was abandoned, but in May, 1863, was re-established and two companies of the Fourth California Volunteer Regiment were garrisoned there. The site is situated about sixty feet above the Colorado River, in the western part of the Territory, in Mohave County, and is said to have been selected by Lieut. Whipple.

Camp Bowie was established in 1862 and located in the Chiricahua mountains. It is in the northeastern part of Cochise County in Apache Pass, and was placed there as a protection for a stage line which ran through the pass.

Camp Apache was first occupied in May, 1870, and was known, during its early existence, as Camp Ord, Camp Mogollon and Camp Thomas. It is situated in a deep valley in the White mountains, and was located there to be handiest to the White Mountain Indian Reservation. It is on White Creek, not far from Salt River, and the surrounding scenery is picturesque in the extreme.

Camp Lowell was first located at Tucson in May, 1862, but was abandoned in September, 1864, and re-established in May, 1865, and was first named Camp Lowell in August, 1866, when it was removed to its location, about seven miles east of Tucson.

Camp McDowell was located on the Rio Verde River in 1865, and first garrisoned with California Volunteers. It is about eight miles from Salt River.

Camp Verde was located on the Verde River almost directly east of Prescott, and ninety miles up the river from Camp McDowell. It was first called Camp Lincoln, when it was established in 1861, and was first garrisoned by regular troops in 1866. Other camps have been established—Camp Thomas, on the Gila, in Graham County; Camp Huachuca, in the southwestern part of Cochise County; Fort Defiance, in Apache County; Camp Reno, on Tonto Creek; Camp Pinal, near Salt River; Camp Wallen, twenty miles east of Camp Crittenden; Camp Goodwin, in the Gila Valley; Camp Sunset, on the Colorado Chiquito; Camp Colorado; Camp West, in the Santa Rita mines, established during the war and named for Capt. West; Fort McLane, also near the Santa Rita mines, and others.

In most cases the camps were established for the purpose of protecting the settlers from the Indians, and usually from one to five companies of regular troops have been stationed at each camp under the command of an experienced soldier, with whom the settlers have quite often found much fault. Whether they were at fault or whether the settlers expected more of them than they could perform, is a matter of opinion. One thing is certain: That often the settlers, whether right or wrong, would hurriedly organize and pursue the Indian depredators and punish them severely after the troops had either refused to act or been too slow in acting to accomplish any good. If the official reports of the officers can be depended upon, the troops have done all they could, and all the requirements demanded. But the majority of the citizens think otherwise, though they blame the military department more than any individual soldiers or detachments of troops.

At the time of the Mexican War there were so few white people in what is now Arizona as to demand no attention from their government. Not

so, however, with what is now New Mexico. The valley of the Rio Grande in that Territory was quite thickly populated with Mexicans. The advent of the small army of Gen. S. W. Kearney into that Territory from the northeast was followed by the almost bloodless surrender of the entire population to the United States forces. Inasmuch as Arizona was at that time, in common with New Mexico, a part of the province of Sonora, Mexico, the fate of one in falling into the hands of the Americans, was the fate of both; so that when New Mexico was captured, Arizona was also, although it was some time before the few Mexicans in the latter were aware of this fact.

The design of the "Army of the West," under Col. (a little later Gen.) S. W. Kearney, was to strike a decisive blow at the northern provinces of Mexico, particularly New Mexico (which included Arizona) and California. The army moved from Fort Leavenworth to Pawnee Fork, thence to Bent's Fort, thence to Santa Fé. The army moved in detachments and concentrated at Bent's Fort* in August, 1846. It consisted of the First Missouri Regiment, under Col. Donivan; two companies of infantry under Capt. Agney; three squadrons of the First United States Dragoons, under Major Sumner, and two batteries of artillery under Major Clark.

As the army approached the Mexican settlements on the Rio Grande, all sorts of warlike rumors were afloat. Scouts reported that the Mexican commander (the Governor), Armijo, was hurriedly collecting a formidable force of Mexicans and Indians to dispute the progress of the Americans. A few Mexicans were captured, upon whom were found copies of the proclamations of Gov. Armijo and the Prefect of Taos, calling the citizens to arms to repel the "Americans who were coming to invade their soil and destroy their property and liberties." On August 14, 1846, Col. Kearney received from Gov. Armijo a message in effect as follows:

"You have notified me that you intend to take possession of the country I govern. The people of the country have risen, en masse, in my defense. If you take the country, it will be because you prove the strongest in battle. I suggest to you to stop at Sapillo, and I will march to

the Vegas. We will meet and negotiate on the plains between them."

Col. Kearney coolly continued his march directly upon the strongholds of the Mexicans and about this time he was notified of his appointment to a brigadier generalship. Vegas was entered without opposition, and when the town and church officials had been gathered in the public square, Gen. Kearney addressed them as follows:

"Mr. Alcalde and people of New Mexico: I have come amongst you by the orders of my government, to take possession of your country, and extend over it the laws of the United States. We consider it, and have done so for some time, a part of the territory of the United States. We come amongst you as friends—not as enemies; as protectors—not as conquerors. We come among you for your benefit—not for your injury.

"Henceforth I absolve you from all allegiance to the Mexican Government, and from all obedience to Gen. Armijo. He is no longer your governor; [great sensation]. I am your governor. I shall not expect you to take up arms and follow me, to fight your own people who may oppose me; but I now tell you, that those who remain peaceably at home, attending to their crops and their herds, shall be protected by me in their property, their persons, and their religion; and not a pepper, nor an onion, shall be disturbed or taken by my troops without pay, or by the consent of the owner. But listen! he who promises to be quiet and is found in arms against me, I will hang.

"From the Mexican Government you have never received protection. The Apaches and the Navajos come down from the mountains and carry off your sheep, and even your women, whenever they please. My government will correct all this. It will keep off the Indians, protect you in your persons and property; and, I repeat again, will protect you in your religion. I know you are all great Catholics; that some of your priests have told you all sorts of stories—that we should ill-treat your women, and brand them on the cheek as you do your mules on the hip. It is all false. My government respects your religion as much as the Protestant religion, and allows each man to worship his Creator as his heart tells him is best. Its laws protect the Catholic as well as the Protestant; the weak as well as the strong;

* In Colorado.



Jas. McNaughton

the poor as well as the rich. I am not a Catholic myself—I was not brought up in that faith; but at least one-third of my army are Catholics, and I respect a good Catholic as much as a good Protestant.

“There goes my army—you see but a small portion of it; there are many more behind—resistance is useless.

“Mr. Alcalde, and you two captains of militia, the laws of my country require that all men who hold office under it shall take the oath of allegiance. I do not wish for the present, until affairs become more settled, to disturb your form of government. If you are prepared to take oaths of allegiance, I shall continue you in office and support your authority.”

All were required to take the oath of allegiance. The 600 Mexicans, two miles away, who had gathered to oppose the Americans, scattered and were heard of no more. Tacoloté was reached and the same scenes enacted. San Miguel the same. August 16th reports reached Gen. Kearney that a large force, under Gen. Armijo, had collected in the celebrated pass of the cañon, fifteen miles from Santa Fé, and were prepared for battle. But when Pecos was reached reports came that Armijo had hurriedly decamped. On the 18th Santa Fé was taken possession of without a shot. Here a fort was built and garrisoned. It was estimated that at this time New Mexico contained about 100,000 inhabitants. One after another the towns fell—Santa Domingo, San Felipe, Bernallilo, Percalta, Tomé, and soon the entire Rio Grande Valley was in the possession of the victorious Americans.

In November, 1847, a command of sixty men, under Lieut. Schoonmaker, bearing dispatches to Gen. Kearney, then in California, reached Tucson and, finding the fort garrisoned by Mexicans, attempted to effect its capture. They first took possession of the town, which comprised about thirty families, but when it came to capturing the fort, the problem was not so easy. They had no cannon to batter down the walls nor ladders to scale them, and though the Americans rode round the walls of the fort, they could invent no method to capture it. The garrison refused to come out, though they had a small cannon and more troops than the Americans. The latter pitched their tents by one of the big gates of the walled town and posted their pickets and had

their own way, at least with the town proper. On the fourth day they were joined by a detail of five men who had been sent from Fort Bliss, Texas, to recall them and the following day they began to retrace their steps up the valley of the Santa Cruz. No sooner had they done this than the garrison issued from the fort and began following them, halting and falling back when they faced about and prepared to fire. The Mexicans made a great show of pursuit and, it was learned afterward, claimed a great victory over the Americans; but if they did, as Judge Adams said, “it consisted largely in keeping out of the way.”

At Tucson and several other places in Southern Arizona small detachments of Mexicans were gathered to contest the advance of the Americans. Col. P. St. Geo. Cooke, with a force of 448 men, was sent from Santa Fé to take possession of Southern Arizona, and to then continue his march to California. A party of Mexican dragoons was encountered before reaching Tucson, but they offered no opposition. Messages from the Mexican commander at Tucson, Captain Comaduran, requested that Col. Cooke should pass his town without entering the same; but the American demanded a capitulation, which was reluctantly granted by the commissioner of the Mexicans and afterward disregarded, and immediate steps were taken to capture the place. On the 15th of December, 1846, the Mexicans, about 230 strong, evacuated the place and the Americans took possession of the town and fort. The Mexican garrisons at Tubac, Santa Cruz and Fronteras had been concentrated ten miles from Tucson, prepared for battle. Col. Cooke, with sixty men, marched out to meet them, but on the way learned that they had retreated. This was the last seen of the enemy and Col. Cooke continued his march to California.

No troops of the United States were garrisoned at Tucson at this time and the Mexicans continued to hold the place and hold in subjection the Indians, with a small body of soldiers located the most of the time at Tubac. The latter place was garrisoned by Mexican troops until 1855-6, but were then withdrawn, and the population was obliged to abandon the place, owing to the unchecked depredations by the Apaches. After the treaty of Guadalupe Hidalgo, the Mexicans had no other object in keeping small garrisons at Tubac and Tucson than to protect its mining

inhabitants at these places. On March 10, 1856, the Mexican authorities and troops formally evacuated Tucson and the Americans took possession where, for nearly two centuries, the Spaniards had ruled.

At Fort Bliss, Texas, in 1849, Gen. Marcy was outfitting to survey the boundary line between the United States and Mexico. Mr. F. Adams joined his command as a private and was at once assigned to the division of topographical engineers. The company to which he belonged consisted of thirty-two men, there being less than a hundred in the entire force. They broke camp June 1, 1849, and headed for Cow Springs, whence they marched to the headquarters of the Gila, where they established the initiatory monument. From this point their course lay down the Gila, which they followed to its confluence with the Colorado. From the beginning to the ending was one continual wage of war. The Apaches had left the higher ground and were camped along the river bottom. At the big bend of the Gila some fifty or sixty miles above Solomonsville, they lost fourteen men, and another was lost a short distance above where Solomonsville now stands, and another at the mouth of the San Pedro; still another at the Cienega, another at Gila Bend, and another near where Tacna Station now is; and so they dwindled down till, at the crossing of the Colorado, but six men remained out of the company that had started out with joyous hopes from Fort Bliss, thirty-one strong, but a couple of months before. The missing twenty-five, that included Lieut. Henry, commanding the company, brave frontiersmen, had died at the hands of the Indians. Some had fallen in battle, others had been killed while hunting a short distance from the troop. The other divisions of the command had suffered proportionately. At the crossing of the Colorado the Yumas disputed the passage with great obstinacy, and held the troops thirteen days, killing seven men and running off whatever stock they had left. The Indians also suffered severely, losing, as one of them afterward told Mr. Adams, forty-seven men, and for a long time subsequently others continued to die of the wounds received in attempting to resist the white man's crossing.

At Antelope Peak, on the Gila, near Tacna, they found the body of a white woman. She was lying in the brush on the river bank. She had

evidently been dead some time, as the body was considerably dried. The wolves had torn the clothes from the body and mangled it some, but her wealth of rich golden hair betokened her nationality. They dug a grave and reverentially wrapped a blanket about her wasted form and buried what, undoubtedly, was the remains of the first white woman that ever trod the desert sands of Arizona. Her lonely resting place was marked by a mound of stones.

During the Civil War Arizona did not have enough inhabitants to make a great showing, either for or against the Union. In most cases, as the troops were needed elsewhere, they were removed and the country was largely abandoned to the Indians and to desperadoes and refugees. All industries came to an end with the breaking out of the war. Ranches were deserted, mines abandoned, stock ranges forsaken, and save at Tucson and Yuma, the savages overran the Territory with fire and blood. The prosperity which had seemed so near was almost totally blotted out.

In July, 1861, the only Federal troops in the Territory abandoned Forts Breckenridge and Buchanan. The two forts were reduced to ashes, together with large quantities of Government property. Without waiting to ascertain the number of the enemy or to prepare for any defense, they burned all their wagons, spiked their cannon, and packed their provisions on mules over the mountains to Fort Craig. There were four companies, numbering altogether 450 men. They had heard of the surrender of Fort Fillmore, toward which they were marching, and this caused them to take a different route. At Fort Fillmore, 500 Federal troops of the regular army surrendered to about 250 renegade Texans, ragged, undisciplined, poorly armed and badly equipped.

A scattering company of roving Texan bandits, under the guerilla chief, Capt. Hunter, numbering about 100, reached Tucson on the 27th of February, 1862, and took possession of the place. Most of the inhabitants had fled to Sonora for safety, or stood ready to join the rebels. Hunter and his party held possession of the Territory, advancing as far as the Pimo villages, and even threatening Fort Yuma, till the advance of the California column, in May, when they retreated to the Rio Grande.

The few citizens and traders who remained

loyal to the Government, and the managers and workmen employed at the mines, being thus left at the mercy of lawless desperadoes, roving bands of Apaches and Sonoranians, fled from the country as fast as they could procure the means of escape. Many of them were imprisoned, and some were murdered. The hostile Indians, ignorant of our domestic disturbances, believed they had at length stampeded the entire white population. On the public highways they fell upon small parties and slaughtered them. It was their boast that they had conquered the American nation. The Sonoran Mexicans, greedy for plunder, rushed in from the borders by hundreds and commenced ransacking the mines, stealing the machinery and murdering the few employés that remained.

At Tubac, the headquarters of the Arizona Mining Company, the Apaches, commanded by their chief, Cochise, besieged the town on one side, while the Sonoranians lurked in the bushes on the other. Twenty men held it for three days, and finally escaped under cover of night. During one night a messenger was sent to Tucson and returned with a party of twenty-five, under command of Grant Ourey, who went to the assistance of those beleaguered at Tubac. They drove off the Apaches. A party of Mexican robbers had also come up from Sonora, but they fell back to Tumacacori Mission on seeing the American strength, and there murdered, in cold blood, an old American who lived at the ranch, and whom even the Indians had spared. There was nothing left. The troops had burned all the stores, provisions and groceries, public and private, that they could lay hands upon, tore down the mill at Tucson, burned the Canoa and destroyed the Government stores at Breckenridge and Buchanan, amounting in value to half a million dollars. A few American miners held on to their locations in Cerbat and Haulapai mountains. Except at Tucson and Yuma all had been driven or frightened away.

Gen. Jas. H. Carleton, with 3,000 California Volunteers, was ordered into Arizona and New Mexico. His army consisted of artillery, infantry and cavalry. This army was at first ordered to relieve Gen. Canby. The California Battalion was composed of stalwart men, hardened by exposure to every vicissitude of farmer's and miner's life. After leaving San Francisco they

were delayed by the floods of 1861-62, and performed great labor in making roads, digging and restoring wells in desert places, constructing bridges, establishing depots, escorting trains, protecting settlers, etc. Their progress through Arizona was very slow. The Apaches were constantly on the watch at every exposed place.

In 1861 the Arizona Volunteers entered the field. They operated mostly with the California Battalion. They established Camp Lincoln as an outpost of Fort Whipple, twenty-four miles from Prescott.

The frontier of the Mexican line, previous to the Rebellion, was guarded by a line of forts located about one hundred miles apart. Col. Loring, a North Carolinian, had been sent out by Floyd, Secretary of War, in the spring of 1860, to take command of the department of New Mexico. Col. G. B. Crittenden, a Kentuckian, was appointed by Col. Loring to command an expedition against the Apaches, to start from Fort Staunton in the spring of 1861. Lieut.-Col. B. S. Roberts, however, who here joined the expedition with two companies of cavalry, soon discovered that Crittenden was devoting all his sober moments—which were few—to the systematic corruption of his subordinates, with intent to lead his regiment to Texas, and there turn it over to the service and support of the Rebellion.* Roberts repelled his solicitations, and refused to obey any of his orders which should be prompted by treason. He finally accepted a furlough, suggested by Loring, and quickly repaired under it to Santa Fé, the headquarters of the department, making a revelation of Crittenden's treachery to its commander, Colonel Loring, and his adjutant, but only to find them both as disloyal as Crittenden. He was rudely rebuked by them as a meddler with other men's business, and ordered directly back to Fort Staunton, but found opportunity to give notice to Captain Hatch, commanding at Albuquerque, to Captain Morris, who held Fort Craig, and other loyal officers, of the treachery of their superiors, and the duty incumbent on them of resisting it.

Meantime, desperate efforts were made by the prominent traitors to bring their men over to their views, by assurances that the Union had ceased to exist—that it had no longer a Government able to pay them or feed them—while, if

*From Greeley's American Conflict.

they would but consent to go to Texas and take service with the Confederacy, they should be paid in full, and more than paid, besides having great chances of promotion. To their honor be it recorded, not one man listened to the voice of the charmer, though Captain Claiborne, at Fort Staunton, made several harangues to his company, intended to entice them into the Confederate service. Of the 1,200 regulars in New Mexico, one only deserted during this time of trial, and he, it is believed, did not join the enemy. Finally, the disloyal officers, headed by Loring and Crittenden, were glad to escape unattended, making their rendezvous at Fort Fillmore, twenty miles from the Texas line, not far from El Paso, where Major Lynde commanded. Here they renewed their intrigues and importunities, finding a large portion of the officers equally traitorous with themselves. But Major Lynde appeared to hold out against their solicitations. His forces, however, were so demoralized that, soon afterward, July 24, 1861, when he led 480 of them, out of 700, to the village of Mesilla, some twenty miles distant, he fell into an ambuscade of 200 badly armed Texans, and, after a skirmish, wherein his conduct can only be vindicated from the imputation of cowardice by the presumption of treason, he ordered a retreat to the fort, which his men were next day engaged in fortifying, when surprised, at 10½ a. m., by an order to evacuate that night. The commissary was ordered to roll out the whisky, from which the men were allowed to fill their canteens, and drink at discretion. No water was furnished for the weary march before them, over a hot and thirsty desert. They started as ordered; but, before they had advanced ten miles, men were dropping out of the ranks and falling to the earth exhausted or dead drunk.

At 2 a. m., a Texan force was seen advancing on their flank, whereupon Lynde's adjutant remarked, "they have nothing to fear from us." Our men were halted, so many of them, at least, as had not already halted of their own accord, and the officers held a long council of war. Many privates of the command likewise took counsel and decided to fight. Just then, Captain Gibbs appeared from the officers' council, and ordered a retreat upon the camp, saying, "We will fight them there." Arrived at camp, our soldiers were ordered to lay down their arms, and informed,

"You are turned over as prisoners of war." The subordinate officers disclaimed any responsibility for this disgraceful surrender, laying the blame wholly upon Lynde. Our men were paroled, and permitted, as prisoners, to pursue their course northward, after listening to a speech from Col. Baylor, of their captors, intended to win their good-will.

Their sufferings, on that forlorn march to Albuquerque and Fort Wise, were protracted and terrible, some becoming deranged from the agony of their thirst, some opening their veins and drinking their own blood. Major Lynde, instead of being court-martialed and shot, was simply dropped from the rolls of the army, his dismissal to date from his surrender, July 27, 1861; and Capt. A. H. Plummer, his commissary, who held \$17,000 in drafts, which he might at any moment have destroyed, but which were handed over to, and used by the Rebels, was sentenced, by court-martial, to be reprimanded in general orders and suspended from duty for six months!

New Mexico, thus shamefully bereft, at a blow, of half her defenders, was now reckoned an easy prey to the gathering forces of the Rebellion. Her Mexican population, ignorant, timid and superstitious, had been attached to the Union by conquest, scarcely fifteen years before, and had, meantime, been mainly under the training of Democratic officers of strong pro-slavery sympathies, who had induced her Territorial Legislature, some two years before, to pass an act recognizing slavery as legally existing among them, and providing stringent safeguards for its protection and security—an act which was still unrepealed. Her Democratic officials had not yet been replaced by appointees of President Lincoln. Her delegate in Congress, Miguel A. Otero, issued, February 15, 1861, and circulated an address to her people, intended to disaffect them toward the Union, and incite them to favor of the Rebellion.

The Democratic Governor, Abraham Rencher, though a North Carolinian, upon receiving news of Lynde's surrender, issued a proclamation calling out the entire militia force of the Territory, to act as a home guard, which call, though it added considerably to the effective force of her defenders, was calculated to exert a wholesome influence upon public opinion and keep restless spirits out of mischief. Col. E. R. S. Canby, who

had succeeded to the command of the Department, was a loyal and capable soldier and was surrounded, for the most part, by good and true men.

When the new Governor, Henry Connolly, met the Territorial Legislature, in December, 1861, a very wholesome and earnest loyalty was found well-nigh universal, so that the Governor's cautious recommendation that the act for the protection of slave property be modified, as needlessly severe and rigorous, was promptly responded to by an almost unanimous repeal of the entire act, leaving the statute-book of New Mexico clean of all complicity with the chattelizing of man. Meantime, Col. Canby was quietly proceeding with the organization of his militia and other forces for the inevitable contest, crippled throughout by the want of money, munitions and supplies of all kinds. Even directions and orders, so plentifully bestowed on most subordinates, were not vouchsafed him from Washington, where the absorption of all energies in the more immediate and momentous struggle on the Potomac and the Missouri, denied him even an answer to his frequent and importunate requisitions and representations. An urgent appeal, however, to the Governor of the adjacent Territory of Colorado, had procured him thence a regiment of volunteers, who, though falling far enough short of the efficiency of trained soldiers, were worth five to ten times their number of his New Mexican levies. Making the best use possible of his scanty or indifferent materials, he was probably about half ready to take the field when apprised that the Texans were upon him.

Gen. H. F. Sibley had encountered similar difficulties, save in the qualities of his men, in organizing and arming, in northwestern Texas, the "Sibley Brigade," designed for the conquest of New Mexico. His funds were scanty, and the credit of his Government quite as low as that depended on by Canby; but the settled, productive districts of Texas were not very remote nor inaccessible, while Canby's soldiers were for weeks on short allowance, simply because provisions for their comfortable subsistence were not to be had in New Mexico, nor nearer than Missouri, then a revolutionary volcano, where production had nearly ceased. Two insignificant collisions had taken place near Fort Craig, in October, 1861. In the earlier, a company of New Mexican volun-

teers, Captain Mink, were routed and pursued by a party of Texans, who, in their turn, were beaten and chased away, with considerable loss, by about 100 regulars from the fort. The surviving Texans escaped to Mesilla, and Canby occupied the frontier posts so far down as Fort Staunton, leaving Fort Fillmore still in the hands of the Texans.

General Sibley, who had hoped to advance in the autumn of 1861, was still at Fort Bliss, within the limits of Texas, on the first of January, 1862, but moved forward, a few days thereafter, with 2,300 men, many of them trained to efficiency in the Mexican War and in successive expeditions against the Apaches and other savages, wherein they had made the name of "Texan Rangers" a sound of terror to their foes. For Canby's regulars and American volunteers, they had some little respect—for his five or six thousand New Mexicans, none at all. Advancing confidently, but slowly, by way of Fort Thorn, he found Canby in force at Fort Craig, which he confronted about the middle of February, 1862. A careful reconnaissance convinced him that it was madness, with his light field-guns, to undertake a siege, while his offer of battle in the open plain, just outside the range of the guns of the fort, was wisely declined. He would not retreat, and could not afford to remain, consuming his scanty supplies, while to pass the fort without a contest, leaving a superior force undemoralized in his rear, was an experiment full of hazard; he, therefore, resolved to force a battle, and, with that view, forded the Rio Grande to its east bank, passed the fort at a distance of a mile and a half, and encamped nearly opposite, in a position of much strength, but entirely destitute of water, losing 100 of the mules of his baggage-train during the night, by their breaking away, in the frenzy of their thirst, from the weary and sleepy guards appointed to herd them. He was thus compelled to abandon a part of his wagons and baggage next morning, as he started for the river, the smallness of his force not permitting him to divide it in the presence of a capable and vigilant enemy.

When his advance, 250 strong, under Major Pyron, reached Valverde, at 8 a. m., a point where the river was accessible, fully seven miles from the fort, they found themselves confronted by a portion of our regular cavalry, Lieut.-Col. Rob-

erts, with two most efficient batteries, Capt. McRae and Lieut. Hall, supported by a large force of regular and volunteer infantry. Our batteries opening upon him, Pyron, greatly outnumbered, recoiled, with some loss, and our troops exultingly crossed the river to the east bank, where a thick wood covered a concentration of the enemy's entire force.

The day wore on with more noise than execution, until nearly 2 p. m., when Sibley, who had risen from a sick bed that morning, was compelled to dismount and quit the field, turning over the command-in-chief to Col. Thomas Green, of the 5th Texas, whose regiment, in the meantime, had been ordered to the front. The battle was continued, mainly with artillery, wherein the Federal superiority, both in guns and in service, was decided, so that the Texans were losing the most men, in spite of their comparatively sheltered position. To protract the fight in this manner was to expose his men to constant decimation without a chance of success.

Canby, who had reached the field at 1 p. m., considered the day his own, and was about to order a general advance, when he found himself anticipated by Green, at whose command his men, armed mainly with revolvers, burst from the wooded cover and leaped over the line of low sand-hills behind which they had lain, and made a desperate rush upon McRae's battery confronting them. Volley after volley of grape and canister was poured through their ranks, cutting them down by scores, but not for an instant checking their advance. There were 1,000 when they started; a few minutes later there were but 900; but the battery was taken, while, choosing death rather than flight, McRae, Lieut. Michler, and most of their men lay dead beside their guns. Our supporting infantry, twice or thrice the Texans in number, and including more than man for man of regulars, shamefully withstood every entreaty to charge. They lay groveling in the sand in the rear of the battery, until the Texans came so near as to make their revolvers dangerous, when the whole herd ran madly down to and across the river, save those who were overtaken by a cowardly death on the way. The Colorado volunteers vied with the regulars in this infamous flight.

Simultaneously with this charge in front, Maj. Raguet, commanding the Texas left, charged

our right at the head of his cavalry; but the disparity of numbers was so great that he was easily repulsed. The defeat of our center, however, soon altered the situation, our admirable guns being quickly turned upon this portion of the field, along with those of the Texans, when a few volleys of small arms, and the charging shout of the victors, sufficed to complete the disaster. No part of our army seems to have stopped to breathe until safe under the walls of the fort. Six excellent guns, with their entire equipage, and many small arms, were among the trophies secured by the victors. The losses of men were about equal—60 killed and 140 wounded on either side.

Fort Craig was still invulnerable, though a flag of truce, dispatched by Canby as he reached its gates, was fondly mistaken for a time by the Texans as bearing a proposition to surrender. It covered an invitation to a truce for the burial of the dead and proper care of the wounded, to which two days were given by both armies, when a rebel council of war decided that an assault was not justifiable, but that they might now safely leave Canby to his meditations, and push on up the river into the heart of the Territory. They did so, as they anticipated, without further opposition from the force they had so signally beaten. Leaving their wounded at Socorro, 300 miles on the way, they advanced to Albuquerque, fifty miles farther, which fell without resistance, and where their scanty stock of provisions was considerably replenished. At Cubero, sixty miles westward, they obtained more provisions and some ammunition.

Still advancing on Santa Fé, the Confederates encountered, at Cañon Glorietta, or Apache Pass, fifteen miles from Santa Fé, near Fort Union, a new Federal force of 1,300, composed partly of regulars, but mainly of green Colorado volunteers, the whole commanded by Col. John P. Slough. The Rebel force actually present, under Col. W. R. Scurry, was decidedly inferior in numbers, but in nothing else. The narrowness of the cañon precluded all flanking, enabling the Rebels to span it with a line of infantry, which instantly charged, with the Texan yell, revolver and knife in either hand. Our forces scarcely waited to be in danger before breaking and flying in the wildest confusion. In a few moments, not a man of them remained in sight of the Rebels.

Scurry halted, reformed his men, brought up his guns, and fired a few shots to ascertain the position (if position they still had) of his adversaries, and then ordered Maj. Shropshire, with his right, and Maj. Raguet, with his left, to charge with cavalry and develop the new Federal line, while he would lead forward the center at the first sound of their guns. Delay ensuing, he moved to the right to ascertain its cause, and found that Shropshire had been killed. Immediately taking command of that wing, he advanced and attacked—the left opening fire, and the center advancing, as he did so. Three batteries of eight guns each opened a deadly fire of grape, canister and shell, as they came within range, tearing through their ranks, but not stopping their advance. A short but desperate hand-to-hand conflict ensued, our infantry interposing to protect their guns, which were saved and brought off, with most of our wagons. But our infantry soon gave way, and the Texan victory was complete. Their loss was reported by Scurry as thirty-six killed and sixty wounded; but among the former were Maj. Shropshire and Raguet, Capt. Burkholt and Lieut. Mills.

During the fight, which lasted from noon until about 4 p. m., Maj. Chivington, of Colorado, with four companies, gained the rear of the Rebel position, and destroyed a part of their train, also a cannon, which he spiked, when, learning that Slough was defeated, he decamped. Our total loss was reported as twenty-three killed and fifty wounded; while, in a skirmish with Pyron's cavalry, the morning before, Slough took fifty-seven prisoners with a loss of only fifteen.

Sibley entered Santa Fé in triumph soon afterward, meeting no further resistance. He collected there all that remained of his little army and confiscated to its use whatever of provisions and clothing, of wagons and animals, he could lay hands on. But he found the population, with few exceptions, indifferent or hostile, the resources of food and forage extremely limited, and his hold upon the country bounded by the range of his guns. Never had heroic valor been persistently evinced to less purpose. Before he had rested a month, he found himself compelled to evacuate his hard-won conquest, and retreat by forced marches to Albuquerque, his depot, which Canby, advancing from Fort Craig, was threatening. He reached it in time to save his sup-

plies, but only to realize more completely the impossibility of attaching New Mexico to the Confederacy, or even of remaining in it.

He evacuated it on the 12th of April, 1862, moving down both banks of the river to Los Lunas, thence to Peralto on the east side, where he found Canby looking for him. Some fighting at long range ensued, with no serious results; but Sibley, largely outnumbered, crossed the river during the night and pursued his retreat down the west bank next morning, Canby moving almost parallel with him on the east. The two armies encamped at evening in plain sight of each other.

Sibley, in his weakened condition, evidently did not like this proximity. "In order," as he says in his report, "to avoid the contingency of another general action in our then crippled condition," he set his forces silently in motion soon after nightfall, not down the river, but over the trackless mountains, through a desolate, waterless waste, abandoning most of his wagons, but packing seven days' provisions on mules, and thus giving his adversary the slip. Dragging his cannon by hand up and down the sides of the most rugged mountains, he was ten days in making his way to a point on the river below, where supplies had been ordered to meet him, leaving his sick and wounded in hospitals at Santa Fé, Albuquerque and Socorro, to fare as they might. He naively reports that "sufficient funds in Confederate paper were provided them to meet every want, if it be negotiated," and honors the brothers, Raphael and Manuel Armijo—wealthy native merchants—who, on his arrival at Albuquerque, had boldly avowed their sympathy with the Confederate cause, and placed stores containing \$200,000 worth of goods at his disposal. He states that, when he evacuated Albuquerque, they abandoned luxurious homes to identify their future fortunes with those of the Southern Confederacy, and considerably adds, "I trust they will not be forgotten in the final settlement."

In closing, Gen. Sibley expresses the unflattering conviction that, "except for its political geographical position, the Territory of New Mexico is not worth a quarter of the blood expended in its conquest," and intimates that his soldiers would decidedly object to returning to that inhospitable, undesirable country. These and kindred considerations had induced his return to

Fort Bliss, Texas, and now impelled him to meditate a movement without orders still further down the country. Col. Canby wisely declined to run a race of starvation across those desolate mountains, in the rear of the flying foe, but returned to Santa Fé, whence his order, of even date with Sibley's official report, claims that the latter had been "compelled to abandon a country he had entered to conquer and occupy, leaving behind him, in dead and wounded, and in sick and prisoners, one-half of his original force."

Capt. J. C. Cremony was of the advance, and was ordered from Yuma to occupy Antelope Pass. Here he found the river had made great inroads upon the mesa, or table-land, between it and the hill, until only a passage of something like a hundred yards intervened. Of this pass he took possession, drawing up his two wagons and picket line in such a manner as to intercept all travel, while a lookout was maintained during the day from the top of a peak. They soon after marched on up the Gila, reaching the first Maricopa villages, south of Phoenix.

Lieut.-Col. Theodore Coult, of the infantry, was in command at the center village. Quartermaster George Shearer was dispatched across the Gila Bend, sixty-five miles, with the mails. The camp was located on an extensive clear plain. By digging about a foot or two, plenty of alkali water was to be had. The grass was found to have made the animals sick, and Capt. Cremony moved them to a more favorable point three miles westward. Here a redoubt of earth was thrown up, in case of an attack, and within were placed the extra arms, ammunition and provisions. In this manner the company remained until the arrival of Col. E. A. Regg, when they were ordered to advance.

The grazing ground to which they resorted during the stay near the Maricopa villages had been the scene of a desperate conflict between that tribe and the Pimos, on one side, and the Yumas, Chimehuevis and Amojaves, on the other. Victory rested with the Maricopas and Pimos, who slew over four hundred of the allied tribes, and so humiliated them that no effort has ever been made on their part to renew hostilities. This battle occurred in 1859, and the ground was, at this time, four years later, strewn with the skulls and bones of slaughtered warriors. Every day large numbers of Maricopas visited the camp and were re-

ceived with kindness, which they never failed to appreciate.

Gen. Carleton next ordered Capt. Cremony and his command, with Capt. Thomas Roberts, Company E, 1st California Infantry, to advance to the San Pedro River. Here it became necessary to know if Dragoon Springs, some thirty miles further east, could supply both companies with water. Captain Roberts took the advance with his infantry, three wagons and seven mounted men, to act as scouts and couriers. Water in abundance was reported and Capt. Cremony joined the advance party. A long and fatiguing march of forty miles, without water, was made before reaching Apache Pass. But as the amount of water was uncertain, Capt. Roberts pushed ahead with the infantry and seven cavalry, starting at 5 p. m. By daylight the balance of the army were on the long and dreary march, and at dark arrived at Ewell's Station, fifteen miles west of the pass. Capt. Roberts was attacked in Apache Pass by a very large body of Indians.

"We fought them," says Cremony, "for six hours, and finally compelled them to run. Capt. Roberts then directed us to come back through the pass, and report with orders to park the train and take every precaution for its safety. On leaving the pass we were pursued by over fifty well-armed and mounted Apaches, and we lost three horses, killed under us, and that one—pointing to a splendid gray—is mortally wounded. Sergt. Maynard had his right arm fractured at the elbow with a rifle ball, and John Teal was believed to be killed, as we saw him cut off by a band of fifteen or twenty savages, while we were unable to render him any assistance." The wagons were ordered to be parked; every man was supplied with ammunition and posted to the best advantage; proper attention was paid to the wounded sergeant, and the camp arranged in such a manner as to insure a warm reception to a large body of savages.

They remained on the *qui vive* until one o'clock a. m., when, to their extreme surprise and sincere gratification, they were joined by John Teal, who was supposed to have been killed. He brought with him his saddle, blanket, saber and pistols, having lost his horse and spurs. His narrative is so full of interest, and so well illustrates a phase in Apache character, that it is worth recording.



H. A. Moorford

"Soon after we left the pass," said he, "we opened upon a sort of hollow plain or vale, about a mile wide, across which he dashed with speed. I was about two hundred yards in the rear, and presently a body of about fifteen Indians got between me and my companions. I turned my horse's head southward, and coursed along the plain, lengthwise, in the hope of outrunning them, but my horse had been too sorely tested and could not get away. They came up and commenced firing, one ball passing through the body of my horse, just forward of his hindquarters. It was then about dark, and I immediately dismounted, determined to fight it out to the bitter end. My horse fell and as I approached him he began to lick my hands. I then swore to kill at least one Apache.

"Lying down behind the body of my dying animal, I opened fire upon them with my carbine, which, being a breech-loader, enabled me to keep up a lively fusillade. This repeated fire seemed to confuse the savages, and instead of advancing with a rush they commenced to circle round me, firing occasional shots in my direction. They knew that I also had a sixshooter and a saber, and seemed unwilling to try close quarters. In this way the fight continued for over an hour, when I got a good chance at a prominent Indian and slipped a carbine ball into his breast. He must have been a man of some note, because soon after that they seemed to get away from me, and I could hear their voices growing fainter in the distance. I thought this a good time to make tracks, and divesting myself of my spurs, I took the saddle, bridle and blanket from my dead horse and started for camp. I have walked eight miles since then." It is needless to add how gratified they were to receive this brave and loyal soldier again, and find him free from wound or scar. It was subsequently ascertained that the man he shot was no less an individual than the celebrated Mangas Colorado, who survived his wound to cause more trouble.

Cheis, the principal warrior of the Chiricahui, and his braves, united with Mangas Colorado, made a force of about seven hundred warriors, determined to hold the pass against the soldiers. Capt. Roberts, entirely unsuspecting an attack, entered the pass with the ordinary precautions. He had penetrated two-thirds of the way, when, from both sides of that battlemented gorge, a

fearful rain of fire and lead was poured upon his troops, within a range of thirty to eighty yards. On either hand the rocks afforded natural and almost unassailable defenses. Every tree concealed an armed warrior, and each warrior boasted his rifle, six-shooter and knife. A better armed host could scarcely be imagined. From behind every species of shelter came the angry and hissing missiles, and not a soul could be seen. Quickly, vigorously and bravely did his men respond, but to what effect? They were expending ammunition to no purpose, their foes were invisible; there was no way to escalate those impregnable natural fortresses, the howitzers were useless, and the men doubtful how to attack the foe. In such strait, Roberts determined to fall back, reform and renew the contest. The orders were given and obeyed with perfect discipline. Reaching the entrance to the pass the troops were reorganized; skirmishers were thrown out over the hills so as to command the road; the howitzers were loaded, and belched forth their shells whenever found necessary. In this manner the troops again marched forward. Water was indispensable for the continuance of life. Unless they could reach the springs, they must perish. A march of forty miles under an Arizonian sun, and over wide alkaline plains, with their blinding dust and thirst-provoking effects, had already been effected, and it would be impossible to march back again without serious loss of life, and untold suffering, without taking into account the seeming disgrace of being defeated by seven times their force of Apaches.

What would it avail those brave men to know that the Indians were as well armed as they; that they possessed all the advantages; that they outnumbered them seven to one, when the outside and carping world would be so ready to taunt them with defeat, and adduce so many specious reasons why they should have annihilated the savages? Forward, steadily forward, under a continuous and galling fire, did those gallant companies advance until they reached the old station house in the pass, about six hundred yards from the springs.

The house was built of stone, and afforded ample shelter; but still they had no water, and eighteen hours, with a march of forty miles, including six hours of sharp fighting, had been passed without a drop. Men and officers were

faint, worn-out with fatigue, want of sleep and intense privation and excitement, still Roberts urged them on and led the way. His person was always the most exposed, his voice ever cheering and encouraging. Immediately commanding the springs are two hills, both high and difficult of ascent. One is to the east and the other overlooks them from the south.

On these heights the Apaches had built rude but efficient breastworks by piling rocks one upon the other so as to form crenelle holes between the interstices. From these fortifications they kept up a rapid and scathing fire, which could not be returned with effect by musketry from three to four hundred feet below. The howitzers were got into position, but one of them was so badly managed that the gunners were brought immediately under the fire from the hills without being able to make even a decent response. In a few moments it was overturned by some unaccountable piece of stupidity, and the artillerymen driven off by the sharp fire of the savages.

At that juncture, Sergt. Mitchell, with his six associates, made a rush to bring off the howitzer and place it in a better position. Upon reaching the gun, they determined not to turn it down hill, but up, so as to keep their fronts to the fire. While performing this gallant act, they were assailed with a storm of balls, but escaped untouched, after having righted the gun, brought it away, and placed it in a position best calculated to perform effective service. So soon as this feat had been happily accomplished, the exact range was obtained and shell after shell hurled upon the hills, bursting just when they should. The Apaches, wholly unused to such formidable engines, precipitately abandoned their rock works and fled in all directions.

To remain under those death-dealing heights during the night, when camp-fires would afford the enemy the best kind of advantage, was not true policy, and Capt. Roberts ordered each man to take a drink from the precious and hard-earned springs and fill his canteen, after which the troops retired within the shelter afforded by the stone station house, the proper guards and pickets being posted.

In this fight Roberts had two men killed and three wounded, and it was afterwards learned from a prominent Apache who was present in the

engagement, that sixty-three warriors were killed outright by the shells, while only three perished from musketry fire. He added: "We would have done well enough if you had not fired wagons at us." The howitzers being on wheels, were deemed a species of wagon by the Apache, wholly inexperienced in that sort of warfare.

Captain Roberts suffered his men to recruit their wasted energies with supper, and then, taking one-half his company, the remainder being left under command of Lieut. Thompson, marched back to Ewell's Station, fifteen miles, to assure the safety of the train under Capt. Cremony's command, and escort it through the pass. At five o'clock a. m. the train was straightened out with half the effective cavalry force three hundred yards in the advance, and the other half about as far in the rear, while the wagons were flanked on either side by the infantry.

In this order they entered that most formidable of gorges, when the bugles blew a halt. A considerable body of the infantry was then thrown out on either side as skirmishers, with a small reserve as the rallying point, while the cavalry were ordered to guard the train, and make occasional dashes into side cañons. The skirmishers, plunged into dark and forbidding defiles, and climbed steep, rocky and difficult acclivities, while the cavalry made frequent sorties from the main body to the distance of several hundred yards. In this manner they progressed through that great stronghold of the Apaches and dangerous defile, until they joined the detachment under Lieut. Thompson, at the stone station house, where they quartered for the remainder of that day.

Capt. Roberts' company of California Infantry had thus marched forty miles without food or water, had fought for six hours with desperation against six times their numbers of splendidly-armed Apaches, ensconced behind their own natural ramparts, and with every possible advantage in their favor; had driven that force before them, occupied their defiles, taken their strongholds, wounded their great leader, Mangas Colorado, and, after only one draft of water and a hasty meal, had made another march of thirty miles, almost absolutely without rest. It is doubtful if any record exists to show where infantry have made a march of seventy miles, fought one terrible battle of six hours' duration,

and achieved a decided victory under such circumstances.

The Apaches had again, during the night, occupied the heights above the springs, and also the water sources, which were thickly sheltered by trees and willow underbrush. Roberts again made preparations to dislodge the savages, and ordered his howitzers into the most favorable positions. The howitzers then opened fire—the shells burst splendidly; large numbers of Apaches were observed to decamp from the heights in the most hurried manner; the springs also underwent a similar cleaning, and in less than twenty minutes the troops were permitted to advance and fill their canteens, while the cavalry, without waiting further orders, made a rush after the retreating savages until the rapid rise and terribly broken nature of the ground checked their career.

In peace and quiet the troops partook of the precious fountain. Horses and mules, which had not tasted water for forty-eight hours, and were nearly famished from so dusty a road and so long a journey under the hottest of suns, drank as if they would never be satisfied. An hour later they moved through the pass, entered upon the wide plain which separates it from the San Simon River, and reached camp on that creek, without further trouble, about four o'clock p. m. Short breathing space was afforded at the San Simon.

On the morning of the third day after arrival, and the trying tests to which they had been subjected, orders came from Capt. Roberts to Capt. Cremony to escort the train of twenty-six wagons back to the San Pedro, in order to furnish the required transportation for the provision, ammunition, clothing and other supplies of the column. For this duty was assigned fourteen troopers, and seven men of Roberts' company. The intervening country had been well examined through fine field glasses, and on two occasions a thorough reconnaissance had been made by the cavalry, which showed that a very excellent passage existed to the north of the Chiricahui range, over nearly a level plain, and that the distance would be only some seven miles longer.

This route, with the approbation of Capt. Roberts, was at once selected for return. Nature had provided a passage nearly as short, much less laborious for men and animals, well supplied with water, wood and grass, and, by its open character,

affording the very best field for the operations of cavalry, and the widest range for splendid breech-loading weapons of long reach. It was not a question whether they should again fight the Indians, but whether they could forward the main object of the expedition. Indeed, strict orders had been given to refrain from Indian broils as much as possible, to suffer some wrong rather than divert time and attention from the great purpose contemplated, which was to liberate Arizona from Confederate rule and effect a junction with General Canby as soon as possible. Had it been exclusively an Indian campaign, other means would have been adopted.

They started in the evening just after sundown, to prevent the Apaches from seeing the dust raised by the column, and directed their course over the open plain, north of the Chiricahui range, and between it and the mountains, from which it is divided, some four miles, by an open and elevated piece of clear land, without trees or rocks, and thickly covered with the finest grama grass. They traveled all night with the cavalry covering the front and rear, and the seven infantrymen sleeping in the empty wagons, with their weapons loaded and ready at a moment's warning. Every little while the cavalry were required to patrol the length of the column, to ward off any sudden and unforeseen attack. The infantry were allowed to sleep, in order that they might be fresh to keep guard throughout the day.

In this manner they progressed until five a. m. next day. The wagons were handsomely corralled nearly in a circle, with the animals and men all inside, except the guard, and the camp properly prepared against surprise. They were then exactly north of the Chiricahui mountains, and south of another range, each being about two miles distant. There could be distinctly seen large numbers of Apaches riding furiously up and down the steeps of those heights, and sometimes advancing on the plain, as if to attack. But experience had taught them that our carbines and Minie rifles were deadly at nearly a mile's distance, and they did not approach within their reach. Horses were tied to the picket rope, which extended across the open-air end of the corral, and covered by a sufficient guard.

Finding that the Apaches did not care to make an onslaught, the cavalry and teamsters, all of whom were well armed, retired to rest, after par-

taking of a hearty meal. Next evening, at dark, they again hitched up and pursued their journey as before. The next halt was made six miles from Ewell's Station, and they had come seventy miles in two nights. That day they saw no Indians, although the same precautions were adopted as if surrounded by large numbers. Their next march was to the Ojo de los Hermanos, or the "Brothers' Springs," so as to avoid stopping to water at Dragoon Springs, which were two miles up a deep and dangerous cañon, where the enemy would possess every possible advantage, and where the animals would have to be led to water a mile or more from the wagons, with the delightful prospect of not finding anything like a sufficiency. In due course of time they regained the San Pedro River, where Gen. Carleton had arrived with a considerable body of troops, Apache Pass was again entered and traversed; but it seemed as if no Indian had ever awakened its echoes with his war-whoop—as if it had ever been the abode of peace and silence.

Next day they emerged from the pass without molestation, or seeing an Indian sign; but, instead of directing their course toward the San Simon, diverged by another route toward the Cienega, a flat, marshy place, at the foot of the next easterly range of mountains, of which Stein's Peak is the most prominent. The San Simon Creek, as it is called, sinks about a mile south of the station bearing that name, and undoubtedly furnishes the supply of water which is to be had at the Cienega, located on the same plain, and about eight miles south of the spot where the creek disappears.

They had progressed about two miles beyond the pass, when they suddenly came upon the bodies of thirteen persons, pierced in many places with bullet and arrow holes, and some with the arrows still sticking, driven deeply into their frames. After some examination, the verdict was that they were the bodies of white men killed by the Apaches but a short time before.

This conclusion proved correct, as was afterward ascertained beyond all doubt, and their destruction was compassed by a trick peculiarly illustrative of Apache character. While these united forces were occupying Apache Pass, waiting the arrival of the troops as just related, they descried a small band of Americans approaching from the east, across the wide plain intervening

between that place and the Cienega, and determined to cut it off. Those wily Indians soon recognized in the new comers a small, but well-armed party of the hardy and experienced miners from the Santa Rita del Cobre, and knew that such men were always on their guard and prepared to defend their lives with the greatest courage and determination. They knew that they would be specially on the *qui vive* after having entered the pass, and that any attack upon them would probably result in the loss of several of their warriors. How to compass their ends and obviate this last possibility became the chief objects of their attention.

Two miles east of the pass, right in the clear and unobstructed plain, there is a gully, formed by the washing of heavy rains through a porous and yielding soil. This gully is from six to eight feet deep, a quarter of a mile long, three or four yards wide, and cannot be seen from horseback until the rider is within fifty yards of the spot. With consummate cunning a large body of the Apaches ensconced themselves in this gully, knowing that the travelers would be somewhat off their guard in an open plain without place of concealment, and awaited the approach of their victims. Not apprehending any danger, the hardy miners rode forward with their rifles resting across their saddle bows and their pistols in scabbards. When they had arrived within forty yards of the gully, a terrific fire was opened upon them by the Indians, which killed one-half their number outright. The remainder sought safety in flight, but were overtaken and every one killed. They had with them \$50,000 in gold dust. These were the bodies discovered by the army, and interred as circumstances would permit.

In the spring of 1862, the California troops had got well forward and were at various points. Among the posts established was Fort West, named after Col. West, of First California Infantry. The post was located in the vicinity of the Santa Rita mines, near the site of old Fort McLane. This location was wisely taken, being in the favorite ground of the Apaches. It was situated just over the line in New Mexico. Soon after California soldiers reached New Mexico, Gen. Canby was recalled and the command devolved upon Gen. Carleton, and an active campaign was inaugurated against the Apache and Navajo Indians. The many signal triumphs

obtained over these Indians could only have been achieved by California soldiers, who understood somewhat the Indian character.

Gen. Carleton dispatched Capt. E. D. Shirland and his Company C of the First California Cavalry Volunteers, to retake Fort Davis, in Texas. Upon Shirland's arrival, he found the fort deserted by the Confederates; but also discovered that they had left three men behind who had been seized with smallpox. Those poor fellows were abandoned to their fate; but the Confederate troops had scarcely left the place before the Apaches arrived, and with their usual caution they made careful inspection before trusting themselves into the building. In the course of their investigations they discovered the three sick men, and, recognizing the disease with which they were afflicted, filled their bodies full of arrows, shot from between the iron bars of the windows, and, without attempting to enter the fortress, went on their way toward their own fastnesses. A few days afterward, Shirland, at the head of twenty-five men, encountered over two hundred of those same Apaches at the place known as "Dead Man's Hole," and killed twenty-two of them without sustaining any other loss than that of a single carbine.

In June, 1862, the proprietor of the *Mowry Silver Mines was seized by a large armed force, under the orders of Gen. J. H. Carleton and retained as a political prisoner for nearly six months. This seizure was made, as it now appears, upon a false charge. The following is an extract from the Journal of the Senate of the United States, June 13, 1864:

"The President *pro tempore* presented a message from the Secretary of War, covering a report of the Adjutant General, in reply to the resolution of the Senate of May 20, 1864, relating to the seizure of the silver mine of Sylvester Mowry, in Arizona, by order of Gen. Carleton, commander in New Mexico, and asking by what authority the mine is now worked, and what disposition is made of the proceeds.

"The Adjutant-General relates the fact of the arrest of Mr. Mowry, under order of Gen. Carleton, on the 8th of June, 1862, on a charge of treasonable complicities with the rebels, and in view of a circular issued by Brig.-Gen. Wright,

commanding the Department of the Pacific, declaring all property of the enemies of the United States subject to confiscation. The property of Mowry was also seized, and a Board of Investigation appointed by Gen. Carleton reported it as their opinion that he had given aid and comfort to the enemy, and that there was sufficient reason to restrain him of his liberty, and bring him to trial before a military commission. Mowry was then confined, July 2, in Fort Yuma, California, awaiting trial, but on November 4, 1862, was unconditionally released, under orders from our War Department, Judge Turner directing the commander of the fort to investigate the cause, and retain or release the prisoner as might appear right. There being no evidence before the Board, he was released accordingly."

While Capt. McCleave, of the First California Cavalry, was in command, the Indians having raided and stampeded horses and stock, the captain pursued them and at the end of four days surprised them in a cañon and killed forty Indians, not a soldier being even wounded. Here they burned the camp, destroying two tons of dried beef, prepared marcal-root, saddles, blankets, bows and arrows. Over three hundred horses were found belonging to the United States Government.

The First California Cavalry, two companies, consisting of 200 troopers, under McCleave and Fritz, were, from continued service of the horses, in need of rest and refreshment. For this purpose Gen. Carleton ordered them to Reventon, a large ranch near Tubac. But better feed being found near San Xavier del Bac, the companies took up temporary residence at that place for some months.

The "column of California" captured and held in subjection at Fort Sumner over 9,000 Navajo Indians, including well-known chiefs, distinguished warriors, women and children. The Apaches proper amounted to nearly 1,500. They were under charge of Capt. H. B. Bristol, Fifth United States Infantry. The force at Fort Sumner was ridiculously small in comparison to the Indians, and could not have been sufficient except for the extreme vigilance adopted.

To show the great amount of service required of California Volunteers, we quote from orders given Gen. Carleton some four months after he assumed command; that was to "keep the country

*Sylvester Mowry was afterward delegate to Congress from Arizona.

clear of Indians for the space of 300 miles around the post." So soon as Sibley's command had been driven from Arizona and New Mexico, Gen. Carleton devoted his attention to protect from Indian outrage the inhabitants of those Territories. He instituted rigid inquiries as to the quantity of provision on hand in the subsistence departments of New Mexico and Arizona, and, from the reports made to him, came to the conclusion that there would be somewhat of a scarcity before supplies could be received.

Nearly three thousand Californian troops had been thrown into the two Territories, nine thousand Indians—Apaches and Navajos—had succumbed to our arms, the country had been overrun and devastated by Sibley's column from Texas, no industrial nor agricultural pursuits had been recommenced, and absolute want stared everybody in the face. This state of affairs had been foreseen by Carleton, to some extent, and he was consequently in a condition to be independent until such protection could be granted as would induce the resident population to recommence farming operations.

Lieut.-Col. King S. Woolsey organized a company of volunteers, consisting of miners, ranchers and others, to the number of 100, and left Prescott March 29, 1864, to punish the Pinal Apaches, who had been making raids and committing murders. They were overtaken and a number killed. Two other expeditions were afterward led by him against the Indians.

The aggregate strength of the National Guard of Arizona, December 31, 1893, was 410; December 31, 1894, 503, showing a gain, during the year, of 93. The guard consists of ten companies, comprising the First Regiment of infantry and regimental band. The Adjutant-General recommends that the present infantry regiment be strengthened to twelve companies, and that at least three companies of cavalry and one light battery of artillery be added to the guard, which will give the young men an opportunity to educate themselves in three different branches of the military service. To this end it is urged that the apportionment of the appropriation made by the National Government for States and Territories for the purpose of providing arms and clothing for the guard be increased, so far as Arizona Territory is concerned, from \$2,000 to \$4,000 annually. At \$4,000 a year it will take several years to equip the guard properly for active service. The money value of clothing, camp and garrison equipage, and ordnance stores received from the War Department since the organization of the National Guard is about \$12,000. The importance of strengthening the National Guard of Arizona may be appreciated when it is known that the southern border of the Territory rests on a foreign country and there are a number of semi-civilized tribes quartered on reservations within its borders, and the fact that the National Government is gradually withdrawing its regular troops from the Territory.



CHAPTER XI.

IRRIGATION—EXTENT OF ARABLE LAND—IMPORTANCE OF THE SUBJECT OF IRRIGATION—AVAILABLE WATER SUPPLY—AREA OF ARID LAND—NATURAL RESERVOIR SITES—ACREAGE ALREADY RECLAIMED—RICHNESS OF THE WATER DEPOSITS—EASE OF CANAL CONSTRUCTION—FIRST CANALS AND RESERVOIRS BUILT—ORGANIZATION OF THE GREAT CANAL COMPANIES—THE WONDERS THEY HAVE ACCOMPLISHED—EXTRAORDINARY FERTILITY OF THE SOIL— ADVANTAGES OF IRRIGATION—THE FUTURE OF THE ARIZONA RAINLESS REGIONS.

It is estimated that out of the 113,916 square miles, or 72,268,240 acres, lying in Arizona, there are 10,000,000 acres capable of being reclaimed by the agriculturalist from an arid state. In other words, that number of acres, which, before any canals were built, were lying parched and without verdure, can be thoroughly irrigated and made extremely productive and valuable. This fact renders the subject of irrigation one of the greatest to Arizona. The area of arable land which needs no irrigation is comparatively small, and is confined mainly to the higher altitudes in the northern and eastern parts of the Territory.

The history of Arizona can never be written without giving special prominence to irrigation. Whether we write of its ancient civilization or its recent modern development, there is one interest which pre-eminently claims attention, and that is irrigation. When we study closely the relics of ancient canals and reservoirs scattered throughout the Territory, we not only observe in them the handiwork of an intelligent race, but we also find a cause for congratulation in the fact that our lot has been cast in a land, rich and fertile, for future use.

The land which supplied a teeming population with food and plenty in bygone ages is surely capable of equal results, under the skillful manipulation of modern husbandry. Irrigation in

Arizona is therefore no experiment. It is older than Columbus, whom we are asked to honor, and possibly antedates the Christian era. Long before New York was dreamed of, men were making money, or its equivalent, by irrigating the mesas of Arizona. In those early days, when political economy as a science was not yet born, the ancient inhabitants understood the tillage of land to be the one great factor in producing wealth in a community. The mines in the mountains, which in these later times are made to yield profitable investments, were considered of little or no importance in those early days as adding wealth and giving contentment to the people. As the utilization of water in those days entered largely into the thoughts of its people, so the utilization of water, upon rich mesas, under a benignant sky, is destined again to be the potent agency in making Arizona great. Its past greatness is but a prophecy of what it shall be. To the man looking around for good paying investments he can find no better place than Arizona. Its entire past history demonstrates it to be the one greatly favored locality over all others in America for prospective irrigation.

*The transformation of the desert plains into farm lands, orchards, and gardens is the chief concern of the people, and through this channel large investments of capital have been made.

*From the report of Gov. Louis C. Hughes.

Of the arid region, Arizona is the most favored spot, for its physical conditions are such as to give the most prolific results. Its perpetual sunshine and absence of snow and frost give twelve months of growing season. Its lands are full of vitality, and its streams are heavily charged with fertilizing elements, which, when carried on to the land by irrigation, are a source of constant enrichment of the soil.

There are 997,000 acres now under cultivation. All save 15,000 acres of the higher altitudes is under irrigation, and 165,000 under canals, but not brought under cultivation, and 45,000 acres were added to the farming area in 1895. There are now (1896) under construction canals and storage reservoirs which will furnish water to reclaim 535,000 acres during the next two years, and other enterprises contemplate the reclamation of over 750,000 acres additional.

While this development is in progress in nine of the twelve counties of the Territory, the larger enterprises are located in Maricopa, Yuma, Southern Yavapai, Apache, and Pima counties, one of the most important being that of the Southwest Improvement Company, with a capital of \$1,000,000, which has located a gravity canal 50 feet wide to carry 50,000 miner's inches of water, the same to be taken out of the Colorado River, on the Arizona side, some 20 miles above Yuma, and extend south through Arizona 50 miles to the boundary line of Mexico. This canal will reclaim 75,000 acres of land. It will have water in abundance, and it is proposed to set aside 50 miner's inches for each 80 acres of land, giving to such land a continual flow of that amount. It is estimated that the silt conveyed in the waters of the Colorado River, when deposited on the land, is worth as a fertilizer from \$5 to \$7 per acre per year. No land in the citrus belt is so well adapted for raising lemons, grapes, oranges, and winter vegetables of all kinds, such as tomatoes, peas, cabbage, strawberries, melons, beets, beans, celery and cauliflower, as this is the frostless section of Arizona. All such products can be supplied to Eastern markets in midwinter, and fruits from four to six weeks earlier than by the most favored orchards of Southern California.

*It is a matter of general information that the

*Report of Prof. E. W. Boggs of the University of Arizona.

year 1895 was one of remarkable activity in irrigation affairs. In no other year have so many legitimate enterprises of great magnitude been under construction and so much costly work performed. The prospects for the year 1896 are for a continuance of this activity in a still higher degree. Hardly any of the larger projects can be said to be completed. Even those now delivering water are in process of enlargement or improvement, this being the natural development necessary to keep pace with the growth of the country and the extension of knowledge concerning irrigation problems.

The plans of several companies embrace the construction of storage reservoirs of immense size. These almost invariably require large masonry dams, which are necessarily slow in building. In a number of instances satisfactory progress on these dams has been made during the past year, and they are now being pushed toward completion with larger forces of men and greater equipment than at any previous time. The criticism has often been made that Arizona irrigation works are wasteful, and that the methods of distribution and application are extravagant in their waste of water. That this has been true cannot be denied, but the knowledge is rapidly spreading that the easiest and best way to increase the available water supply is to make the best use of that which is already in hand.

The Arizona Improvement Company, which controls the north side system of canals, aggregating over 100 miles of main canals and 60 miles of laterals, is engaged in the execution of a broad and systematic plan for increasing the quantity of water. This plan embraces a number of interesting features, among which is the enlargement of the channels of the several canals in order to carry larger quantities of water during times of surplus, thus relieving the demand during seasons of scarcity. It is known that the multiplicity of laterals owned and operated by individual consumers causes great loss by evaporation and seepage, and that a large saving will result from concentrating the distribution so far as possible into larger laterals constructed by the company. It is also proposed to introduce a time system, whereby each consumer, instead of receiving in constant flow or for a long period the comparatively small amount due to his acreage, will receive some multiple of that quantity



Mr. P. P. P.

for a proportionately shorter time. Accurate measurement of water is essential to the success of this plan. The notoriously great waste due to prevailing methods of watering cattle will be checked in a large degree. This company has also planned the construction of two large reservoirs for storing surplus water. These are to be at favorable sites at some distance away from the river. They will be filled by a canal from the river, and are thus free from danger of damage by floods.

For several years the Consolidated Canal Company, the principal member of the south-side system on Salt River, has been engaged upon an extensive plan of improvement throughout their system. Security and economy have been studied with earnest care. The main feature of these betterments has been the construction of new head works in Salt River. These are built upon solid rock at a most favorable location for security and now constitute the best heading on this great river, where permanent works are very difficult and costly. The new head, being located far upstream from the old, required the construction of two and a half miles of new canal. For this distance the depth of excavation averaged from 16 to 22 feet, the bottom width being 40 feet, making the work one of huge proportions. A mammoth dipper dredge, the largest of its kind in America, was built expressly for this work. Half a million cubic yards of material were excavated, one-third of which was solid rock and loose rock. Having completed the stretch of new canal, the dredge is now engaged in enlarging the main canal throughout its length, and the company is working upon the installation of a power plant at the junction of their cross-cut canal, near the town of Mesa. At this point there is an abrupt descent of over 40 feet from the mesa to the lower plain. The fall thus created is capable of developing 1,000 horse power, which will be transmitted by electricity and devoted to industrial uses in the vicinity.

Recognizing the fact that the supply of arable land in Arizona must always remain greater than the supply of water for irrigation, many schemes have been formed for the construction of storage reservoirs. Owing to the magnitude of these projects, a long time is required for their completion, and the financial difficulties are corre-

spondingly great. Probably the first, as well as the greatest, of such enterprises to get fairly under way in Arizona is that of the Rio Verde Canal Company. This project embraces a system of four storage reservoirs, having an aggregate capacity of 416,000 acre-feet, a diversion dam, and 140 miles of main canal, with a capacity through the first 50 miles of 1,200 second-feet, estimated to furnish an ample supply of water for 220,000 acres of land. Some two years' time and a large sum of money have been expended in an exhaustive study of this enterprise in all its details, working plans have been adopted, and a good beginning has been made upon the actual construction. At the present time the company has under contract and in active progress the principal storage dam, the diversion dam, and 98½ miles of main canal. Both dams are of masonry, and are very favorably situated for security. Active work was commenced under this contract in April of this year, and thus far some 12 miles of the canal have been finished. It is expected to have the whole contract completed by the close of 1896.

Another large storage project in an advanced stage is that of the Agua Fria Water and Land Company. Their plans embrace the construction of two storage dams and a diversion dam, all on the Agua Fria River, 59 miles of main canal, and about 200 miles of laterals. Much time and money were devoted to the necessary preliminary engineering before ground was finally broken. The diversion dam, one of the reservoir dams, and thirty miles of main canal are now under contract. The diversion dam, a masonry structure 84 feet high from bed rock and 590 feet long on the crest, will be completed in October, 1895. The earth and rock work of the first four miles at the head of the main canal, the most expensive portion of its length, is now completed. By January 1, 1896, 25 miles of main canal and 30 miles of laterals will be finished.

The first reservoir dam will be 1,110 feet long at the top, 100 feet high above the bottom of the river, but extended down to bed rock. It will be of masonry throughout. The second storage dam will be built when the demand for water makes it advisable. The completion of the diversion dam and 25 miles of canal will enable the company to at once commence the delivery of a large amount of water for irrigation.

Upward of 23,000 acres of land under this canal have already been located by individuals, who secured it direct from the Government. The altitude of this tract ranges from 1,100 to 1,300 feet above sea level.

The Pennsylvania Irrigation Company has planned a system of works to provide irrigation for some 30,000 acres of land in Paradise Valley, northeast of Phoenix. Their plans include a storage reservoir on Cave Creek. From this reservoir the water will be permitted to flow down the natural channel of the stream to a diversion dam, where it will be raised into the canal and conveyed to the lands. An extensive change of the highway around the reservoir site has been completed and opened for travel. A force of men has been kept at work on the foundations of the dam. It is expected to have the dam and canal system ready for use in the summer of 1896.

The extensive dam and system of canals at Gila Bend have been involved in litigation, and have thus far been kept from completion and the delivery of water.

Messrs. Allison Brothers a few years ago successfully opened a canal for the development of the underground waters of the Santa Cruz River at Tucson. They have recently commenced work upon a similar project on the east side of the valley, opposite the former one. This canal will be some $6\frac{1}{2}$ miles in length, and will command a large area of land in the unsurpassed Santa Cruz Valley. The plan is a simple one, merely requiring an open cut to be made in the bottom of the valley, which is extended as far upstream as is practicable. By this means water is developed in considerable quantity, all of which is thus saved from certain loss and applied to profitable use.

Another company is in process of organization at Tucson, having for its object the development of the underflow of the Rillits, a tributary of the Santa Cruz River.

Several small artesian wells have been bored in the San Pedro Valley, in Cochise County. These wells are flowing constantly, but their discharge is insufficient to affect irrigation interests in a large degree. No important artesian basin has yet been found in the Territory, although indications justify the belief that they may be found by a geological survey or systematic search. The

work involved in such an investigation is too costly for private means, and it seems a legitimate and promising field for the General Government to undertake.

It is to be regretted that the important work of stream gauging has not been resumed and made a permanent feature of the Government's work. No other class of work within the arid region compares in importance with this. Moreover, the work of extension, enlargement, and improvement has been so general and widespread as to preclude the mention of all the smaller irrigation works affected.

Gov. Hughes resumes: Owing to the number of irrigation reservoirs being constructed and others contemplated, with a view to the reclamation of the public domain, it seems advisable, as a matter of precaution and to guard against disaster resulting from the breaking of dams as well as to protect investors, that a board of irrigation engineers be created, consisting of two United States Army engineers and the Territorial irrigation engineer, whose duty it shall be to inspect all irrigation works from time to time and require a safe construction or repair of the same. The United States Army officers being under salary from the United States and the Territorial engineer from the Territory, no expense would accrue and important service would be rendered.

The advantages of farming by irrigation are manifold. By irrigation the chances for crop failure are reduced to a minimum or substantially eliminated. Irrigation, so far as the element of production is concerned, puts the farmer on an equal footing with other occupations or businesses that do not depend for their success upon the elements. The nightmare of drouths or floods never haunts his sleep. By means of irrigation he is enabled to apply water to his growing crops at just the time it is needed and in proper quantities. How rarely does nature perform this service for the Eastern farmer with precision and certainty as to both time and quantity? It often rains too much or too little or not at all. There is a critical period in the growth of many crops when the failure to get rain even for a few days beyond the time it is needed means disaster. On the other hand, continuous or unseasonable or too much or too little rain constantly menaces the farmer of the rain region.

No such terror ever confronts the farmer who relies upon irrigation.

In brief, irrigation conduces to the growth of community life, with its countless blessings. Such a life contributes to and nourishes the highest type of civilization. The farmers of the Atlantic and Middle States are apt to regard farming by irrigation as an innovation in agriculture, whereas, in fact, it is the oldest method known to history or tradition; besides, it is the prevalent system in the world to-day. Four-fifths of all the people of the globe are subsisted at the present time by irrigation farming. Ancient Babylon, Tyre and Carthage were supported by children of the desert, who cultivated the soil by irrigation, and the secret of Moorish civilization and glory is found in the waterways, canals and ditches constructed and operated by that wonderful people.

But speaking in broad terms, and with a view to its ultimate capabilities, the conquest of the continent is only half accomplished. The mighty forces which molded the prosperity of the past have ceased to operate. The great engine of material progress stands idle in its tracks. The nation halts and falters upon a mysterious boundary line, which marks the ending of familiar conditions and the beginning of problems strange and new to Anglo-Saxon men. Thus the splendor of national prosperity pales in the grim presence of national stagnation. And yet beyond the line where the armies of civilization have bivouacked, if not laid down their arms, sleeps an empire incomparably greater and more resourceful than the empire those armies have conquered. Here lie the possibilities of a twentieth century civilization—a civilization new, distinctive, and more luminous and potential than any which has preceded it in the world's long history.

There is no problem of greater concern to the people of the Rocky Mountain region than that of the reclamation of its arid lands, providing homes for millions of families and producing billions of wealth annually from the now dormant valleys and desert plains. The silver question is insignificant in the presence of this important interest, and as the silver and the arid regions are the same, and the silver industry having rapidly declined, the reclamation of these lands will not only restore but quadruple industrial interests and at once remove the unrest and discon-

tent now prevailing among a large population by providing a more profitable, permanent and desirable resource for labor and the production of wealth, for, while mining exhausts its resources, the tilling of the soil under irrigation is an ever-increasing resource.

The General Land Office declares the present area of the rainless region of the country to contain 529,000,000 acres. It is estimated that of this arid empire one-fourth can be brought under irrigation from natural streams and the impounding of water from the mountain rainfall. Arizona is credited with 49,000,000 acres. Converting this desert into farm homes for the thousands of homeseekers is a matter which should concern every statesman and patriotic citizen, as it means much for our permanent national prosperity. The generous policy of the Government in the past in securing farm homes for the people, and thus "helping them to help themselves," has developed the great West. And a continuance of this policy is most desirable, for in the farm life of the Republic is the great moral reservoir and sturdy power which compensates for and holds in check the danger of great cities. The farm lands of the rain belt are exhausted. The ambitious American farm boys and girls are leaving the parent nest prospecting for new homes. They must be provided. Thousands of the seething population of overcrowded cities are hungry for farm life. Thousands of foreigners are coming here to enjoy the blessing of a free government, and to anchor their future hope on American soil. They want farm homes. This demand can only be satisfied in the rainless region, and to this end it must be made available.

The good results which will come to the country at large from the conquest of this vast area of land to the use of man is incalculable, for it will give homes for millions of farmers, who will add to this bulwark of free government; in the construction of reservoirs and canals it will give employment to armies of toilers; the prolific products of the soil will demand railroads for exporting the same, creating another source of industry, and billions of wealth to be exported will mean millions of tons of traffic to American shipping and to the bankrupt Eastern railways, and, not the least important, the many resources created, demanding labor, will prove a safety

valve for the restless surplus labor of overcrowded centers of population. The Government can encourage no internal improvement which will do so much for the general good as this. It will yield tenfold more benefits than improving rivers, highways, or building forts and navies, for it will provide myriads of homes to myriads of American families, and all that this implies. It will plant in this arid region a vast, thrifty, rugged, virtuous population, as strong and mighty as the Rocky Mountains and as loyal as the perpetual sunshine.

The important consideration which is engaging the attention of this arid region is, How can capital be secured to bring these lands under irrigation? Four national congresses have been held, composed of leading citizens of the States and Territories, at which this subject has been earnestly discussed. There appears to be a division of public sentiment touching the policy of the Federal Government in reclaiming these lands and reimbursing itself by an increased price on their sale. It has also been suggested that the Federal Government should make a loan to the Territory or State to reclaim these lands, the Government taking as a security for the loans bonds at 2 per cent.

The Arizona Canal Company was organized December 22, 1882. Prior to that date, all of the irrigated land in the Salt River Valley, lying on the "North Side" of Salt River, was comprised within the area lying between Salt River on the south, and the Grand Canal on the north. A considerable portion of this area was not in cultivation, and that which was in cultivation was irrigated from the Salt River Valley Canal, the Maricopa Canal and the Grand Canal being independent and rival canal companies. The area lying between the Grand Canal and the Arizona Canal was, then, a part of the desert, whose only product was cacti, greasewood, and similar desert growth, and practically remained so, until the completion of the Arizona Canal, in 1887.

This great waterway is forty-seven miles in length. The diversion dam is located some thirty miles northeast from Phoenix, lying up in the foothills of the mountains, and about three-fourths of a mile below the confluence of the Verde River and the Salt River. The dam is one thousand feet in length and abuts on either

side in solid rock. The dam proper has a base of fifty feet, but, in addition, there are lines of swinging cribs and piling, which, in addition to the apron of the dam, serve as a talus, to prevent the overflowing water from cutting or undermining. The construction of this dam is of the most substantial character, and it has solidly withstood the great floods which annually pour down the Salt River. The head gates and waste weirs of the canal are also located in solid rock. The channel of the canal is forty feet wide on the bottom, the banks having a slope of $1\frac{1}{2}$ deg. to 1 deg., and a depth of seven and one-half feet, thus being some fifty-eight feet wide on top, and is reduced from these measurements only as the water is drawn out for the purpose of irrigation, by means of lateral ditches.

The configuration of the valley is so well adapted to irrigation, that these lateral ditches are taken out from the main canal, uniformly, on the section and half-section lines. In addition to the main channel, forty-seven miles in length, there are one hundred and sixty miles of lateral ditches, conveying the water directly to the lands to be irrigated.

Mr. W. J. Murphy, a successful railroad contractor, while engaged in completing a considerable contract for the construction of a portion of the roadbed of the Atlantic and Pacific Railway, then building through Arizona, was attracted by the natural resources of the Salt River Valley, and although the Arizona Canal was not then built, he was so impressed with the prospects of future development in this valley, that he undertook and did construct this large, artificial waterway, taking in payment therefor the bonds of the Canal Company. That his confidence in the natural resources and future development of what was at that time a desert plain was not misplaced nor ill-advised, is shown in part by the fact that these bonds have since gone to a ten per cent. premium. The backward view is ever plain. But, in the history of mankind, difficulty and hazard have always attended his attempts to peer into the future, even when attended by the most flattering present prospects; and judgment, faith and perseverance of the highest order are required to render prophetic forecast actual realization. These qualities were and are possessed by Mr. Murphy, in an eminent degree. For, it may truthfully be said, that

through his judgment, his faith, and his perseverance, thousands upon thousands of acres of barren desert land have been made to "blush and blossom as the rose."

The Arizona Canal, begun in May, 1883, was finally completed in January, 1887, and the following May, the Arizona Improvement Company was organized, with a capital stock of three million dollars (\$3,000,000.00), divided into thirty thousand (30,000) shares, of the par value of one hundred dollars (\$100) each. This corporation immediately purchased a controlling interest in the Salt River Valley Canal, the Maricopa Canal, the Grand Canal, and the Arizona Canal, and connected the three former with the latter, by means of a cross-cut canal, thus uniting, into one great system, all of the waterways of the Salt River Valley, lying north of Salt River, this area including the city of Phoenix, which has since trebled in size. The united canal system, now under the control of the Arizona Improvement Company, aggregates 106 miles of main canal, and nearly 200 miles of lateral ditches, covering an area of about 175,000 acres, one hundred thousand acres of which is covered by the Arizona Canal, alone. And within this latter area, there have sprung up the thriving young towns of Alhambra, Glendale and Peoria—a hundred thousand acres of land, not long since a barren desert, fit hiding place of the wandering coyote, has been rendered habitable, and where once was found but sagebrush, greasewood and cacti, now, fruitful farms and happy homes greet the eye.

The addition of this large area to the irrigated portion of the valley was a great factor in inducing the building of the Maricopa and Phoenix Railroad, connecting Phoenix with the Southern Pacific Railway system, and also in the building of the Santa Fé, Prescott and Phoenix Railway, connecting Phoenix with the Santa Fé system; thus, making the city of Phoenix a competitive point in railway matters.

In addition to purchasing a controlling interest in the four canals mentioned, and uniting their varied interests, the Arizona Improvement Company became a heavy owner of lands under each of the canals mentioned, and began at once to demonstrate, by actual production, the wonderful fertility of the soil and climate. But little attention has been given, hitherto, to the plant-

ing of orchards in commercial quantities, small orchards for private use being the former practices. In the deciduous line, the company has planted 640 acres, adjoining the young and vigorous town of Glendale, situated ten miles out on the new North and South Railroad. This orchard consists of apricots, peaches, pears, plums, *Prunis Samoni*, almonds, grapes and other deciduous fruits, now just coming into bearing. The claim that Salt River Valley fruits are from to four weeks earlier than in any other locality in the United States was demonstrated by the company shipping fresh apricots, in carload lots, to the eastern market this year, the first car starting May 16, 1896; and that carload shipments of fresh apricots can be successfully and profitably made was demonstrated by their getting returns of eight hundred and fifty dollars (\$850.00), net proceeds, per car. In the line of citrus orchards, the company has planted 230 acres of Washington navel oranges, a few acres of which have been in bearing for the past two or three years, 100 acres just coming into bearing this season. Oranges, the product of this orchard, received a first premium at the Mid-Winter Fair held in San Francisco, in full competition with all California. The claim that citrus fruits are also much earlier matured in this valley than elsewhere has been demonstrated by shipments from this orchard, beginning as early as the middle of November.

In addition to more than doubling the area of irrigated lands, and the demonstration of the practicability of fruit raising, on a commercial scale, the company is now turning its attention to the development of the water power created in the construction of their canals.

On the main channel of the Arizona Canal, the entire volume of water is dropped sixteen feet over a limestone ledge. Coupled to the power here created, there are on the Cross-Cut Canal twenty-four lesser falls, all of which will in the near future be converted into electrical energy, and be applied to commercial purposes. Thus, the policy of the company has been: to enlarge, to develop, to improve.

The officers most closely identified with the Arizona Improvement Company are W. J. Murphy, president; Col. Wm. Christy, vice-president; W. D. Fulwiler, formerly secretary, now general superintendent, and I. M. Christy, the present

secretary. The three former were identified with the Arizona Canal Company, as president, vice-president and secretary, from the completion of the Arizona Canal until the organization of the Arizona Improvement Company, since which time Mr. Murphy has been the chief executive officer of both companies, and Col. Christy their vice-president.

Modern irrigation in Arizona began in 1867, with the construction of the Salt River Valley Canal, by Jack Swilling and others, and became known as the "Swilling Ditch." It runs directly through Phoenix. Salt River is "salt" only in name. There were then no railroads within 1,000 miles of Arizona. The Government was establishing military posts to look after the Indians, and it was necessary to have barley for the cavalry horses. This necessity gave rise to the first modern irrigation in the Territory. The Maricopa Canal was started a year or two later, the Grand Canal in 1878. These were constructed from time to time. The great Arizona Canal was commenced in 1883, and was completed in 1887. Two years later a consolidation of the four canals was effected under "The Arizona Improvement Company," and the Water Power Canal, connecting them all, was built, thus constituting the most complete system of irrigation in the United States.

The lands and canals of the Arizona Improvement Company are situated in the Salt River Valley of Central Southern Arizona—surrounding Phoenix, the capital and principal city of Arizona. The land upon which Phoenix is built and the surrounding lands were reclaimed by the irrigation system of this company, and some idea of its importance can be formed from the fact that upon what was heretofore a worthless desert waste, has grown a value estimated at twenty millions of dollars, all made by this system alone. The valley is about sixty miles long by twenty wide, and is elevated above the sea about 1,200 feet. It is surrounded by mountains, some of which are lofty and picturesque. The surface is as even as a sheet of water, but with an average incline of about ten feet per mile. It is perfectly adapted for irrigation.

The largest canal system on the south side of the Gila is the Consolidated, under the ownership of the Consolidated Canal Company. It originated with the Mesa Canal, which was

founded in that section about 1878, by a number of early settlers. As first constructed, it was about eleven miles in length, and irrigated about 2,500 acres. It was gradually extended to meet the wants of new settlers, until it finally, in 1890, became fully organized, and was baptized with its present name. The head of the Mesa Canal was enlarged by dredging until the capacity reached 40,000 miner's inches. As it now is, the company irrigates over 110,000 acres of most excellent land, and embraces the old canals known as Mesa, Tempe, Utah, and San Francisco, Highland, Eureka, etc.

Just north of Mesa City the main canal comes to an abrupt termination in an immense timber lock, constructed in the strongest manner possible, and put up to stay. In this great lock there are three sets of gates facing to the east, west and south, from which ditches run out across the almost perfectly level plain.

The eastern branch is the main canal of the company, and has a capacity of 15,000 miner's inches of water. One branch of it runs westward between the Salt River and Gila Valley, which divides in turn upon reaching the slope of the Salt River mountains, one arm flowing toward the Gila to irrigate the lands about Kyrene Station, and the other following the northern slope of the hills.

The western branch has a capacity of about 20,000 miner's inches, but is used principally as a feeder for the Tempe and Utah canals. It runs but two miles before it empties into the Tempe Canal, which lies thirty-five feet below the edge of the mesa. A wall of solid masonry has been constructed at this fall, which affords great horse power for the propulsion of heavy machinery. The grade from the floodgates to the mesa edge is three feet to the mile. The branches of the Tempe Canal, three in number, irrigate an immense extent of territory.

For a distance of several miles the Mesa Canal traverses the bed of an ancient Aztec ditch, some twenty feet wide, which saved the original builders considerable money, as it was constructed through solid rock.

The annual charge for water under the Consolidated Canal system is only one dollar per acre, the water being delivered directly upon the land for which it is intended. Taking it all in all, it is the cheapest water or irrigation sys-

tem in the country, caused by an abundance of water, the remarkable fertility of the soil under its canals, and the great number of consumers.

Some two and a half miles southwest of the city of Phoenix, the canal of the Farmers' Irrigation company, with a capacity of 15,000 miner's inches, or 250,000,000 gallons of daily flow, takes its water from the north bank of the Salt River, three miles west of Phoenix, feeding, with its hundreds of ditches, as fertile a range of country as can, perhaps, be found on the habitable globe. Gradually leaving the river, its course, though westward, is more northerly until it crosses the Agua Fria River, embracing some ninety square miles of a garden spot. It is fourteen and a half miles long, and irrigates 250,000 acres, and is the third oldest canal in the Salt River Valley.

The land covered by this canal is among the choicest in this fertile valley—or rather, sloping plain. In this sparsely settled region, strange as it may seem, land can be purchased at fifteen to twenty dollars an acre, which in a better known country would readily bring ten times the amount, and be considered cheap, much of it having been taken up by poor settlers, who would sell half their holdings to enable them to fully develop, at once, the remainder. The soil is a rich alluvial, from ten to fifteen feet deep, and capable of producing oranges, lemons, figs, grapes, cereals of all kinds, and sending its products to market three weeks to a month earlier than the most favored spots in California.

Among those who have signalized their faith in the future of the irrigation systems of Arizona are the members of the Rillito Canal Company, which was incorporated in 1892 for the purpose of the development of water upon the Rillito River. It was about 1884 when this enterprise was first started; at that time a ditch was dug upon the Fort Lowell Reservation, beginning about three miles east of its western boundary and made to carry water to the lands of Messrs. Schwenker and Roland, both owners of 160 acres, lying adjacent to the reservation, and near the foothills, northeast from Tucson. These men each owned one-half of the ditch and used the water on their respective lands. After the death of Mr. Roland in 1892, his land, as well as that of Mr. Schwenker, passed by purchase into the possession of the Rillito Canal Company.

This company, immediately upon the purchase of the Schwenker and Roland ditch, set about a much larger development of water, with the intention also of carrying it across the Rillito River and reaching a fertile mesa of several thousand acres, which spreads out south of the river and near Tucson. To accomplish this purpose it was found necessary to carry the water of the canal from one bank of the Rillito River to the other. This was accomplished by the use of an inverted siphon, made of California redwood properly beveled, banded and buried under the river-bed. It was built to a hydraulic grade of 1 in 514, and at its lowest point of curvature was supplied with a gate valve and pipe for flushing in case of sediment or sand collecting during certain seasons of the year. The siphon was placed at right angles to the river. It was 450 feet in length and 4 feet 5 inches in diameter. At its eastern end it was supplied with a large forebay entering the siphon. This was provided with a suitable sandbox and gate, which opened into a spillway cut diagonally to the river, and emptied into it, at a point some distance lower down and at a lower level.

It is the first enterprise of its kind in Arizona for irrigating purposes, and for that reason is worthy of note in this history. The company has recently made several other purchases of land in the vicinity, and purpose to utilize a large amount of the water developed upon its own land. It will lease small tracts of land, with water, to worthy settlers.

The South Gila Canal Company is pronounced by competent engineers to be one of the greatest and most successful water storage enterprises in the world. The source of supply is the Gila River. The dam under construction across that river is 1,400 feet in length and 50 feet in height, with a breadth at the bottom of 106 feet. The construction of this dam was a work upon which the best of engineering skill was displayed. Into the bedrock, which consists of a species of cement, four rows of 10x10 piles were driven as far as possible. Between these is solid rock laid in the best cement. In this manner the work extended to a height of twenty feet. Above this, blocks of stone, 6 feet in length, 18 inches thick and three feet wide, were used to continue the structure, the spaces being filled with asphaltum, so that the whole became one solid and impervi-

ous mass or monolith, which is capable of withstanding any pressure which may be brought against it. This, however, was only a beginning of the great work which the company carried out. They increased the height of the superstructure to 110 feet, with a length across the stream of 1,800 feet. The great capacity of water storage which was thus afforded outrivals anything of the kind now in existence.

The main canal is over 70 miles long, with a mean width of 40 feet, and an average flow of 6 feet depth of water, and covers 161,000 acres of land, 18,000 acres of river bottom, and 143,000 acres mesa or upland, all of the finest quality.

The first 12 miles of the canal are a continuous reservoir covering 3,000 acres, with 11 feet depth of water to draw from. The head of the canal is at the west end or outlet of the Oatman Cañon, on the Gila River, in Maricopa County. Its outlet into the river for waste water is at the extreme point of the Mohawk mountains in Yuma County, a distance from the head, in an air line, of about 50 miles. Opposite Texas Hill Station, on the Southern Pacific Railway, it is 20 miles distant from the river, with a smooth, level plain intervening, all of which is irrigable from the canal and its laterals. The railway runs 20 miles through the lands, covered by the canal dividing it nearly in the center, thus equalizing the distance from the road in a manner unequalled by any other enterprise on the Pacific Coast.

The transportation facilities afforded are among the most enviable possessions of this region. While it is a fact worthy of recognition that every well and properly organized irrigation enterprise has been successful upon the Pacific Coast, it may be well here to state some of the peculiar advantages which attach to the South Gila Canal.

One great feature is, that the lands are all Government lands, and may be entered by actual settlers in quantities not exceeding 320 acres as desert land, or 160 acres as homestead and 160 acres desert, but under one or both acts not to exceed 320 acres.

The annual charge for water has been fixed by the company to encourage the rapid development and cultivation of all land under the canal, and so far as in its power lies to prevent speculative monopoly in the lands under the canal and its water.

First, the owner of land and water will have to pay 50 cents per acre for each and every acre he or she owns, whether the land is cultivated or lies fallow. This price is perpetual for uncultivated land. The first year the rental for all cultivated land will be 75 cents per acre; the second, \$1 per acre; the third, \$1.25 per acre, and the fourth, \$1.50 per acre, at which price it shall remain until the end of the seventh year, after which, in the discretion of the company, it may be raised to a price not exceeding \$2.50 per acre, above which it can never be raised. Beginning with a fixed charge of 50 cents for uncultivated land, and 75 cents for cultivated, we ascend to a maximum of \$1.50 at the beginning of the fourth year, at which figure it is to remain until the end of the seventh year.

There can be no question that with such advantages every acre of land subject to the South Gila Canal will momentarily, where water touches it, become a valuable possession, vying with those in some parts of California. There, in Riverside, for instance, irrigable orange land is worth in the market \$1,000 per acre. The wonderful, though undeveloped, resources of this section have brought foreign capital hither for investment, and a number of wealthy Englishmen were among the chief promoters of the South Gila Canal.

The honor of originating the Rio Verde irrigation enterprise* belongs to the Hon. Augustus C. Sheldon, formerly a practicing lawyer of Minneapolis, Minnesota. In the year 1888 he became interested in the subject of irrigation, and its wonderful possibilities under favorable conditions, in the creation of wealth and the development of human happiness. Early in the succeeding year he visited the valley of the Salt River in search of an unoccupied field for an irrigation enterprise of the first rank. He examined one after another of the locations generally considered the most promising, but found none among them equal to the ideal he had conceived.

Meanwhile his mind was constantly recurring to the Verde River as a source of irrigation water supply. The old settlers told him it was one of the two "all summer" rivers in the southwestern country. He frequently heard of the purity and sweetness of its waters, and of the

*By John Knox Doolittle.



George Proskuge

6,000 square miles of which it was the drainage outlet. He saw lying unused thousands upon thousands of acres of the most fertile lands surrounding the then irrigated portion of the Salt River Valley, and beautifully situated for irrigation at somewhat higher levels, if only a water supply could be found for them.

About this time Col. Benjamin W. Thompson, of Minneapolis, Capt. Prosper P. Parker and Samuel C. Symonds became interested with Mr. Sheldon in the project of finding or making a way by which the waters of the Rio Verde could be distributed upon the more elevated portions of the Salt River Valley. After numerous preliminary investigations it was determined to attempt to run a practicable canal line from a point in the Verde River about a mile above the mouth of Camp (or Chilson's) Creek down the western edge of the Verde Valley, and crossing the divide west of Mount McDowell into the valley of the Salt River.

It was an earnest party which undertook this almost hopeless task. That it was an effort to accomplish the impossible, was the universal verdict. Appreciation of the importance of success, and its far-reaching consequences if attained, lent solemnity to the occasion, when, on a Saturday evening in March, 1889, the party arrived at the mouth of Chilson's Creek determined to solve the problem, if solution were within the range of human effort. It did not seem like an ordinary undertaking, or an ordinary occasion. By common consent, though none of the party were churchmen, it seemed unfitting that so important a work should be initiated upon the Sabbath. So Sunday was devoted to sacred rest. The achieved success of the Rio Verde enterprise would seem to indicate the smile of Providence upon a reverence for Christian institutions. The company are now (August, 1896) building their diversion dam at the exact location selected on the ensuing Monday.

J. K. Doolittle, Esq., formerly of Minneapolis, became officially connected with the company as its secretary and attorney January 1, 1892, and since October of that year has given its affairs his undivided attention. Donald W. Campbell, of Denver, Colorado, a hydraulic engineer of wide experience and reputation, became the company's consulting engineer in De-

ember, 1891, and plans for construction have been formulated under his guidance and supervision. The company's official list is as follows: Augustus C. Sheldon, president; Alonzo H. Linton, vice-president; John K. Doolittle, secretary and attorney; Frank L. Conkey, treasurer; Donald W. Campbell, consulting engineer. Its capital stock is \$3,600,000, and its fixed charges are represented by \$2,400,000 of five per cent. twenty-year bonds, of which \$2,000,000 have been sold to European capitalists.

The Rio Verde Canal Company was probably the first in Arizona to definitely formulate and plan a water storage enterprise of great magnitude for irrigation purposes. The company was organized in 1891 primarily for the purpose of storing the waters of the Verde River and serving them upon the higher lands of the Salt and Gila valleys. In all preliminary work the management has been content to make haste slowly. From July, 1891, to March, 1893, except during the hot months of the summer of 1892, a force of engineers numbering from 13 to 35 men was constantly kept in the field. It has been the special care of the officers in charge, by exhaustive surveys on various possible lines, locations and plans, the examination and careful study of the extent of rainfall and topography of all tributary water-sheds, and the site, capacity and comparative cost of available storage reservoirs, and by the investigation of all the material local conditions affecting the cost of construction and the efficiency and permanence of the system, to avoid hazard to the ultimate success of the enterprise by construction upon half-formed plans. More than \$75,000 was expended in these preliminary investigations prior to the commencement of construction.

The main source of water supply for this enterprise is the Verde River. This stream drains 6,000 miles of mountainous country, with an average rainfall of from 18 to 22 inches, and the water supply is ample beyond question. The main storage reservoir will fill an extensive basin in the Verde Valley, 3,402 acres in extent at the contour of 2,052 feet above sea level, and with a capacity at this contour of sufficient water to cover 205,000 acres a foot deep. The Horseshoe Reservoir, as this storage site is designated, is located at the geographical center of the Territory.

The Rio Verde Canal Company's irrigation system, when completed according to present plans, will consist, in addition to the several reservoirs, and the diversion dam, of 140 miles of main canal, extending from the point of diversion on the Verde River at a point 34 miles northeast from Phoenix, and running in a general southwesterly direction to a point 56 miles west from that city, with all necessary laterals, flumes, conduits, and other necessary hydraulic works. The completed system will eventually irrigate 400,000 acres of land and will cost between three and four millions of dollars. The reservoir area and capacity, as now planned and calculated, are as follows, to-wit:

"Horseshoe." Area 3,402 acres; capacity 205,000 acre feet.

"New River." Area 3,416 acres; capacity 133,503 acre feet.

"Number Three." Area 1,000 acres; capacity 10,000 acre feet.

"Number Four." Area 2,493 acres; capacity 68,093 acre feet.

Total area, 10,311 acres; total capacity, 416,596 acre feet.

An acre foot is sufficient water to cover one acre one foot deep, equivalent to 43,560 cubic feet.

During the year 1893, the construction of this enterprise was retarded by general financial conditions. In the spring of 1894 construction was commenced and some canal built. On the 5th day of June, 1894, a contract was entered into for the building of the dam of the Horseshoe Reservoir to the capacity of 205,000 acre feet, and the building of the diversion dam and 98.4 miles of main canal. This has been designated as "initial construction." Subsequent events seemed to render an amendment of this contract desirable, and, on the 19th day of February, 1895, a supplemental contract was entered into, which, by agreement of all parties, has been assigned to the Minnesota and Arizona Construction Company, who are now engaged pursuant thereto, in building the company's initial enterprise. The construction company is composed of the members of the former strong contracting firms of Langdon, Linton & Co., of Minneapolis, and D. Grant & Co., of Faribault, in the State of Minnesota, and the enterprise is on a strong financial footing.

The impounding dam of the Horseshoe Reservoir is located in Section 2, Township 7 N., Range 6 E., near the boundary between Yavapai and Maricopa counties. The river at this point makes a bend to the east in the shape of a horseshoe. At the toe, the river passes between high and nearly perpendicular rocky walls on either side. The mountain on the east rises quite rapidly to the height of over 700 feet, and the butte on the west to the height of over 250 feet. Extending from this westerly butte for a half or three quarters of a mile is a rocky plateau 150 feet above the level of low water. This plateau is to be utilized as a spillway, over which the flood waters can be turned when the reservoir is full, thus leaving the dam always in still water, and separated from the overflow by the mountain at its westerly end. The dam is to be built of granite, quarried from the abutting mountains, about 300 feet long at the bottom, 1,200 feet long at the top, and 250 feet "up and down" the stream at the water line. In lieu of a masonry water tower, the engineers have adopted a tunnel something over 700 feet long and 12 feet in diameter, with vertical shaft in the native rock. The tunnel enters the mountain about 400 feet above the westerly end of the dam and is to be utilized during construction, to carry off the water of the stream. After the dam is completed the tunnel with vertical shaft will be used as a receptacle for the "draw-off" conduits.

As the water impounded in the reservoir shall be needed for the irrigation of the lands along the canal, it will be turned into the river-bed and allowed to run down the stream to the diversion dam in Section 17, Township 5 N., Range 7 E. This will be a granite structure 80 feet in height, built into the rocky walls of the cañon on either side, and into the bedrock on the bottom, so as to control the entire flow of the stream. It will be supplied with a spillway of 600 feet, hewn out of the solid rock.

The perfected plans for the canal provide for varying grades, widths and cross-sections, according to the situation and character of the material to be excavated. It will, on initial construction, for more than 50 miles, have a maximum capacity of 1,200 cubic feet of water per second of time, equivalent to 60,000 miner's inches.

The tract of country to be irrigated by "Rio Verde" upon initial construction may be generally described as the northerly and more elevated portion of the gently sloping plain extending north from the Salt and Gila rivers to the "foothills." It rises from the river at an average grade of from eight to twelve feet to the mile, and is dotted here and there with "buttes" or little mountains. These lands lie upon a curving line, 60 miles in length, and have an average breadth of about seven miles. They skirt the present irrigated and cultivated portion of the Salt River Valley, of which the city of Phoenix forms the center, and surround it on the northeast, north and west. For the growth of citrus and deciduous fruits, vegetables, alfalfa and cereals, these lands are undoubtedly equal to the best land in the United States. Such is the universal opinion of the cultivators of the soil in the immediate vicinity. They are finely situated and so smooth that the cost of leveling and of irrigating them is by natural conditions reduced to a minimum. The lands to be irrigated upon initial construction are located as follows:

In the Verde Valley, 15,000 acres.

Between McDowell Divide and the Agua Fria, 110,000 acres.

Westerly of the Agua Fria, 95,000 acres.

Total, 220,000 acres.

One of the important public benefits from the construction of this enterprise will be the water power to be developed. According to the report of Donald W. Campbell, the company's consulting engineer, the company will be able to avail itself of a fine water power east of the Agua Fria, produced by the fall of all the water of the canal from an aggregate height of 62 feet. At Calderwood Butte, 25 miles northwest of Phoenix, the canal will be carried across the Agua Fria, utilizing at that point a waterfall of over 45 feet net. At the southeast flank of the White Tank mountains, another water power is to be utilized, with a net fall of 70 feet. These several falls will produce effective power equal to 6,117 horse power.

The importance to the surrounding country of this item of available mechanical energy can hardly be overestimated. In view of the great advance in the economical transmission of electricity for considerable distances, it can hardly

be doubted that the water power produced by this enterprise will, in the near future, solve the problem of cheap light, fuel and mechanical power for manufacturing and transportation purposes in the city of Phoenix and the surrounding villages and cities.

Work was commenced by the construction company on the 9th day of April, 1895. Thus far some 30 miles of the canal have been completed. The contractors have had large experience in building railroads and public works in the northwest, and are surprised at the ease with which their northern men and horses take hold of work through the hot weather of the Arizona summer. The heat has no more depressing influence than is usual in Minnesota. Construction work upon the Horseshoe Reservoir was actually commenced on the 10th day of July, 1895. The tunnel has been completed, and the construction of the dam proper is now (August, 1896) well advanced. The contractors express their ability to complete the whole work early in 1897.

When the Rio Verde Canal Company commenced operations all the lands which it proposed to irrigate were, with unimportant exceptions, vacant unappropriated government lands. The management soon perceived that any successful attempt to profitably utilize the waters of the Verde River for irrigation purposes must include the promotion of the settlement and occupation of these lands by entrymen who should become their customers for the water, from the time the company should be ready to serve the same. Therefore, though the canal company has no power under its charter, and no desire to own or control the lands to be irrigated, it has been compelled, in order to successfully develop its own business, to direct a large portion of its energy to the encouragement of the settlement and entry of the lands which it proposes to water. An irrigation company, without consumers who will use the water and pay the canal company for its services, is like a railroad without passengers or freight traffic. It can neither pay running expenses or fixed charges. The policy of the Rio Verde Company in this particular was dictated by the demands of capital that it should demonstrate its ability to cover the lands with water users, as a condition precedent to an investment in its

bonds. Some of the most conspicuous failures in irrigation enterprises have been produced by the failure to appreciate the necessity of the cultivation of the soil to the success of an irrigation company. Unless the water server can show a certain income from its legitimate business, its management cannot expect that money owners will invest in its securities.

The income of an irrigation company is ordinarily measured, and the amount thereof demonstrated, by its sale of water right contracts. These embody the conditions of water service, and the terms of payment therefor. The covenants entered into by the company and the prices and terms of payment are not the same in all cases. They are determined largely by the peculiar conditions in each case. The contract itself is often spoken of in common parlance as a "water right."

In the Rio Verde Canal Company's water right, the company grants to the purchaser "the perpetual right to have, demand, receive and use—a quantity of water reasonably necessary for the proper irrigation of the land (to which it is attached), by such methods as shall be found most practicable, and in the consumption of water most economical, and for the watering of live stock and for domestic purposes thereon." The company also covenants against overselling its capacity, and that it will deliver, and measure, the water at the boundary of each man's land. The right to receive water is by the contract inseparably and proportionately united to the land to which the water right is attached, and to each and every parcel thereof, and is made transferable only in connection with the land. The consumers are entitled to the delivery upon demand of an aggregate amount of two acre feet of water for each acre irrigated in each year. If the land owner uses any water, in any year, he must pay for at least one acre foot for each acre irrigated. After the second year of operation the owner must pay 50 cents per acre per year as a maintenance charge for lands owned by him upon which no water is demanded or served. The maximum yearly water rate is fixed for the first two years of operation, at five cents, for each 1,800 cubic feet of water served; for the third and fourth years at six cents for each 1,800 cubic feet of water served, and so on. During and after the

eleventh year the maximum yearly water rate is fixed at ten cents for each 1,800 cubic feet of water served, which rate can never be increased. It is believed that under the equitable provisions of this contract the company will be able from the beginning of water service, to command a liberal patronage from actual settlers upon lands tributary to its canal. The following quotation from the company's prospectus, embodies an advanced policy, which cannot fail to promote its own business interests, and in a still greater measure the welfare of the public:

"Forty acres of these lands, irrigated and properly planted and cultivated, will return a larger net profit with less labor, than the best 160 acre rain-belt farm. Small holdings mean dense population, rapid development, adjacent village community centers, early and convenient school and church privileges, assured transportation facilities, better markets and rapid increase in property values. It is, therefore, the settled policy of the company, as rapidly as practicable to encourage the subdivision of the lands under its system into small holdings, so as to make homes for the largest number of actual settlers and home-makers, the purpose being to secure the greatest good to the greatest number, and the Government land to actual settlers."

This company began the sale of its water rights at the price of \$10 per acre, and as sales progressed the price was advanced from time to time. According to the last report all sales have been made on the following terms: \$1 per acre cash at the time of purchase, and \$1 per acre each year thereafter, with interest on deferred payments from the time the company shall be ready to serve water, at the rate of 8 per cent. per annum, payable annually. The acreage and prices of water rights sold and outstanding to the date of that report (April 1, 1896) are as follows:

17,041.22 acres at \$10 per acre,	\$170,412.20.
4,161.35 acres, at \$12.50 per acre,	\$52,016.88.
2,800 acres, at \$13.50 per acre,	\$37,800.
47,986.21 acres, at \$15 per acre,	\$719,793.15.
4,881.33 acres, at \$16 per acre,	\$78,101.28.
9,040 acres, at \$17 per acre,	\$153,680.
2,680 acres, at \$18 per acre,	\$48,240.
640 acres, at \$19.50 per acre,	\$12,480.
Total—89,230.11 acres.	Purchase price,
	\$1,272,523.51.

CHAPTER XII.*

SCHOOLS OF ARIZONA—ESTABLISHMENT OF THE COMMON SCHOOL SYSTEM—MEANS FOR ITS MAINTENANCE—COUNTY AND DISTRICT BOARDS—METHOD AND RATE OF TAXATION—BOARD OF EXAMINERS—TEACHERS' INSTITUTES—KINDERGARTEN SCHOOLS—ARBOR DAY—HIGH SCHOOLS—REPORTS OF OFFICIALS—STATISTICS—KINDRED EDUCATIONAL ASSOCIATIONS—ENROLLMENT AND ATTENDANCE—UNIVERSITY OF ARIZONA—ITS BRANCHES—THE TERRITORIAL NORMAL SCHOOL—EDUCATION OF INDIAN YOUTH — THE REFORM SCHOOL.

The first law providing for a public school system in Arizona was passed by the fourth Legislative Assembly in 1867. This act provided for the establishment of a Territorial University and Common Schools. No steps were taken, however, to establish a university under that law, but the necessity for common schools was recognized and several schools were soon after organized.

The plan of organization from the beginning was after the plan of the district system, but was very crude and imperfect in its details. The first act provided that the Board of Supervisors of each county should have the power to establish school districts in any village or settlement with a resident population of not less than 100 persons, and covering an extent of country of not more than four square miles. Such district to be organized upon the application of any number of legal voters asking for the organization of the same. The Board of Supervisors of the county exercised the duties now delegated to the district boards of trustees.

In 1868 an amended law was passed by which the Board of Supervisors of each county was made a board of education for that county, and it was made the duty of the various boards of education to recommend to the Legislature such

changes of the Territorial school laws as seemed for the best interests of the schools, to make an annual report to the Legislature, to select a list of text books for the different branches usually taught in common schools, and they were not allowed to form any new school district under this law unless within the area comprising the proposed new district there lived at least 20 children between the ages of four and twenty-one.

A county superintendent was provided for by this law, and each district organized by electing a director, a clerk, and a treasurer. There was no Territorial system of schools up to this time. In 1871 another law was passed which provided for a Territorial Board of Education, consisting of the secretary of the Territory, the superintendent of public instruction, and the Territorial treasurer. The governor was made ex-officio superintendent of public instruction. By the provisions of this act the probate judge of the county was made ex-officio county superintendent of schools, and the County Board of Education, consisting of the Board of Supervisors, was done away with, and the government and management of the district was vested in the District Board of Trustees. Under the Act of 1868, the funds for school purposes were raised by each district by a vote of the people resident therein. For buildings and furniture a tax not to exceed one-half of one per cent. might

*So much of this chapter as relates to the Public School System was prepared by Prof. F. J. Netherton.

be levied, and a similar amount could also be levied for teachers' salaries, on the assessed valuation of the property in the district.

By the Act of 1871 a Territorial tax of 10 cents upon each \$100 valuation of taxable property was levied and directed to be collected and paid into the Territorial treasury as a special fund for school purposes, and the County Board of Supervisors was authorized to levy, in addition to this, a county school tax not to exceed 50 cents on each \$100 valuation of taxable property in said county. The Territorial money was to be apportioned to the various counties and the county moneys to the various districts, based upon the average attendance after school had been in session three months.

By the Act of 1875 the Territorial tax was raised from 10 to 15 cents and the county tax was fixed at 35 cents on each \$100 valuation. All school moneys under this law were paid into the Territorial or county treasuries to the credit of the school fund, while under the former law each district had a treasurer of its own. By this act a County Board of Examiners was created, to consist of the County School Superintendent and two persons to be appointed by the governor.

Up to 1879 the governor of the Territory was ex-officio superintendent of public instruction, but in that year the Legislature segregated those two offices and provided for a superintendent of public instruction, to be appointed by the governor. It also dropped the secretary of the Territory from the Board of Education and added the governor, thus making the Territorial Board of Education to consist of the governor, superintendent of public instruction and Territorial treasurer. It was made the duty of the superintendent of public instruction to visit each county in the Territory at least once a year for the purpose of visiting schools, consulting county superintendents, of lecturing and addressing public assemblages on subjects pertaining to the public schools. The provision of the law relating to the county school tax was changed, and fixed at not less than 50 nor more than 80 cents on the \$100 valuation.

Not until 1883 did the Legislature pass a law providing for holding county teachers' institutes. By the provisions of this law any county having ten or more school districts shall an-

nually hold a County Teachers' Institute, or two or more counties may unite and hold a joint county institute, if the county superintendents deem it advisable to do so.

In 1885 a Territorial Board of Examiners was created, to consist of the superintendent of public instruction, and two persons appointed by him. It is the duty of this board to review orders of the county boards of examiners, to grant Territorial certificates, to prepare the quarterly examination questions, and to adopt rules and regulations for the government of the county boards of examiners.

By act of the same Legislature the method of apportioning the school money was changed and apportioned upon the number of children of school age in the district. This law was in effect for ten years, but the last Legislature changed back to the original system of apportioning the money on the average attendance. In 1891 an act was passed providing for the establishment of kindergarten schools, and the Friday following the 1st day of February was designated as Arbor Day, and it was made the duty of the teachers of the various schools to hold such exercise as will stimulate the minds of the children toward the benefits of the preservation and perpetuation of our forests and the growing of timber, and to encourage the planting, protection and preservation of trees and shrubs, such planting to be attended with appropriate and attractive ceremonies.

By this time, owing to the rapidly increasing population in nearly every section of the Territory, the necessity for greater facilities for raising money for building and equipping school houses was recognized, and a law was passed to authorize school districts to issue bonds to build school-houses and to liquidate outstanding indebtedness, said bonds to be issued upon a vote of the majority of the qualified electors of the district.

The last Legislature, that of 1895, passed a high school law, which provides that any number of common school districts may, by vote of the residents therein, unite for the purpose of maintaining a high school, said school to be supported by a direct levy upon the assessed valuation of the property in the high school district. In 1885 the law under which the Ter-

ritorial University was established was passed. By an act passed in 1893 the Territorial Board of Education was increased to five members, by adding the principal of the Normal School and the chancellor of the University.

Thus has the school system of Arizona been developed from the very imperfect and inadequate law passed in 1867, until now we have a thoroughly organized public school system, with a Territorial Board of Education, a Territorial Board of Examiners, and a Territorial superintendent of public instruction in charge of the Territorial system, a county superintendent of schools and a County Board of Examiners, to look after the county organization, and District Boards of Trustees to govern the district organization. A liberal levy is made for the support of the schools, and all children between the ages of 6 and 18 years are admitted.

After graduating from the common schools the high school doors are opened at home, and from the high schools the student can step into the University and the Normal School, thus having the advantage of a complete educational system, from the kindergarten department of the common schools up to and through the Territorial University.

The first report of the condition and progress of the schools by any Territorial superintendent was made by ex-Gov. Safford in 1873. By that report we find that the total receipts for school purposes in the Territory for the years 1873 and 1874 were \$22,833.32, while the disbursements for the same period amounted to \$20,211.46. During the same period \$8,950 were invested in the construction and furnishing of school houses.

The census of 1874 shows a school population of 2,584 children between the ages of 4 and 21 years of age, and an attendance in the public schools of 343, under the instruction of nine teachers. One hundred and ninety-six children were also enrolled in private institutions.

The last report showing the condition and progress of the schools, as made by Superintendent F. J. Netherton in 1895, shows a very satisfactory increase in every respect. There were received for school purposes, from all sources, during the years 1893 and 1894, the sum of \$471,679.50, and the expenditures for the same period amounted to \$397,884.30. The

valuation of school property was estimated at \$405,446.32. The school census of last year shows a school population (children between the ages of 6 and 18) of 15,916, with a total enrollment in the public schools of 11,319, with about 750 enrolled in sectarian schools and nearly as many more in private institutions. There were 293 teachers employed at an average salary of \$71.30 per month.

The Normal School has grown from a mere handful of students to an institution of 125 students. For several years only one teacher was employed, and now four are hardly sufficient to meet the demands made upon them. A large three-story building, costing in the neighborhood of \$50,000, gives accommodation to all who apply for admission.

The University of Arizona occupies a beautiful two-story structure, constructed at an expense to the Territory of over \$35,000, and is equipped with a faculty of competent specialists in all its departments, and has an attendance of about 100 students, the attendance having doubled during the last year.

The educational interests of the Territory have been aided during the last two years by the organization of educational associations.

Chief among these is the Arizona Teachers' Association, which was organized by the teachers of the Territory in December, 1892, and which has done much to arouse an interest in educational matters, not only among the teachers themselves, but among the patrons of the schools. The Arizona Historical Society was organized in February, 1895, and the Arizona Antiquarian Society and the Summer School of Science were organized through the influence of the Arizona Teachers' Association in December, 1895. Thus have the educational interests of Arizona grown during the last 28 years.

The history of the University of Arizona begins with the appropriation of public lands made by Congress in 1881, donating 72,000 acres to each of several territories for the support of an institution of learning.

The superintendent of public instruction made a selection of the lands for Arizona in 1882, but as no immediate revenue was available, nothing more was done, except to encourage a sentiment in favor of higher education by a few earnest friends until 1885, when the Legislature of the

Territory made an appropriation of \$25,000 to found an institution of learning, which should be known as the University of Arizona, and located it at or near Tucson.

The establishing act provided for the appoint-

ment of Wood, Hon. C. M. Strauss, of Tucson; Hon. J. W. Anderson, of Florence. Ex-officio by virtue of office: Hon. R. L. Long, superintendent of education, of Phoenix; Hon. J. A. Bayard, secretary of Territory, of Prescott.

THE FOLLOWING FIGURES, SUBMITTED BY PROF. F. J. NETHERTON, SUPERINTENDENT OF PUBLIC INSTRUCTION, SHOW THE CONDITION OF THE SCHOOLS IN THE VARIOUS COUNTIES ON JULY 1, 1895, AS COMPARED WITH JULY 1, 1894:

County.	Number of teachers		Number of school districts.		Number of boys enrolled.		Number of girls enrolled.		Total enrollment.		Number of children of school age at last census.		Average length of term.		Average salary paid to teachers.	
	1894	1895	1894	1895	1894	1895	1894	1895	1894	1895	1894	1895	1894	1895	1894	1895
	<i>Months</i>															
Apache	33	17	21	10	603	405	579	346	1,182	751	1,626	435	5.6	5.1	\$71.24	\$66.79
Cochise	25	26	18	18	543	512	420	430	963	942	1,312	1,193	6.7	6.3	80.08	76.42
Coconino	9	10	6	7	187	198	189	196	376	394	467	.....	6.6	6.8	90.71	85.50
Gila	20	16	17	16	258	223	207	184	465	407	507	402	5	5.2	64.25	69.66
Graham	22	25	21	17	602	678	583	635	1,185	1,313	2,122	2,244	5.6	6	63.20	56.60
Maricopa	67	80	42	44	1,643	1,659	1,860	1,529	3,503	3,188	3,797	3,672	6.7	6.5	75.81	70.00
Mohave	12	14	12	13	88	104	106	114	194	218	277	249	6.8	6.1	73.00	72.67
Navajo (α)	.....	17	.....	14	.....	321	.....	337	.....	658	.....	610	.....	5	.....	57.60
Pinal	13	14	8	8	274	277	278	252	552	529	868	794	6.8	5	80.00	80.00
Pima	39	40	25	24	960	921	807	748	1,767	1,669	3,407	3,521	5.7	6	73.41	69.39
Yavapai	41	47	37	42	400	540	387	510	787	1,050	1,238	1,386	6	6	71.00	73.03
Yuma	7	8	6	6	170	188	108	143	278	331	581	605	6.3	6.6	82.00	82.50
Total	288	314	213	219	5,728	6,026	5,524	5,424	11,252	11,450	16,202	15,201	6.2	6.7	74.06	71.68

County.	Number of teachers examined.		Number receiving certificates.		Rate of school tax levied on each \$100.		Total amount paid in salaries.		Total amount expended — all sources.		Valuation of school property.	
	1894	1895	1894	1895	1894	1895	1894	1895	1894	1895	1894	1895
	<i>Cents.</i>											
Apache	19	2	8	2	50	70	\$12,185.50	\$ 6,040.00	\$14,950.61	\$ 7,476.02	\$ 11,682.00	\$ 9,945.00
Cochise	9	14	7	14	50	50	14,119.00	13,832.89	17,529.30	18,032.60	29,192.00	20,299.00
Coconino	7	5	5	4	30	30	5,551.47	6,785.00	7,168.02	23,586.37	20,535.00	30,165.00
Gila	10	7	7	5	65	75	6,720.00	5,446.97	7,824.85	6,101.32	3,875.00	4,245.00
Graham	12	12	12	12	50	50	8,116.28	8,782.98	10,181.45	11,183.63	13,255.00	13,600.90
Maricopa	56	56	35	34	50	45	34,689.16	32,799.50	45,023.72	47,371.96	168,098.00	173,400.00
Mohave	3	2	3	2	50	.....	5,899.52	6,065.83	7,614.33	8,063.25	5,175.00	4,817.00
Navajo (α)	.....	3	.....	1	.....	70	.....	6,120.00	.....	11,887.94	.....	2,211.30
Pinal	3	3	3	3	.....	75	7,403.75	6,078.75	9,171.61	9,326.90	20,290.50	20,290.50
Pima	17	14	10	10	60	60	20,374.75	18,263.40	25,300.45	23,944.54	75,848.82	75,848.82
Yavapai	16	13	16	12	50	50	19,382.55	22,031.05	24,855.98	26,045.48	49,495.00	48,655.00
Yuma	4	2	3	1	55	.....	4,104.50	5,045.00	6,419.70	8,337.88	11,000.00	11,000.00
Total	.....	.....	.....	.....	.....	.....	138,546.48	137,291.37	176,040.02	201,357.89	405,446.32	415,132.02

α Not created till 1895; formerly a part of Apache County.

ment of a board of regents by the governor of the Territory. In compliance with this act, the following named gentlemen were appointed: Hon. W. B. Horton, of San Carlos; Hon. J. S. Mansfield; Hon. M. C. Samaniego, Hon. J. S.

The board formally organized November 27, 1886, and elected Dr. J. C. Handy, of Tucson, chancellor of the University and president of the board; Chas. M. Strauss, secretary, and M. C. Samaniego, treasurer. The members of



Wm. J. House

the board began at once to hold regular meetings to devise plans for carrying out the work intrusted to them.

In the spring of 1887, a site was selected just outside the city limits, on a rolling mesa, some seventy-five feet higher than the town, consisting of some forty acres of land, which was generously donated by three of Tucson's public-spirited citizens, Messrs. E. B. Gifford, B. C. Parker and W. S. Read. In June the services of Mr. J. M. Créighton, architect, of Phoenix, were secured, to prepare plans and specifications for a building, and the contract for the erection of the same was awarded to Mr. M. J. Sullivan, of Tucson, for \$31,969, in September. In June and August of this year, Messrs. G. J. Roskruge, of Tucson, and R. Harrison, of La Noria, became members of the board through appointment to fill vacancies caused by resignations.

Capt. A. E. Miltimore, quartermaster United States Army, who was stationed at Tucson at this time, a gentleman who has taken a warm interest in the development of the Territory, volunteered to act as superintendent of construction without compensation, and his services were gladly accepted by the board.

Judge J. S. Wood acted as president *pro tem.* of the board from December, 1887, to May, 1889, when Surveyor-General Royal A. Johnson was elected chancellor of the University and president of the board. Mr. S. M. Franklin became a member in July, 1888, and Mr. John M. Ormsby in April, 1889, appointed to fill vacancies caused by the resignations. Judge J. S. Wood and Messrs. M. C. Samaniego and R. Harrison resigned in May, and the places were filled by the appointment of Messrs. Herbert Brown and Robert T. Miller, both of Tucson, and W. R. Stone, of Florence.

Owing to pressure of other duties, Capt. A. E. Miltimore was compelled to resign the position of superintendent of construction in May, 1889, much to the regret of members of the board, which they expressed in a resolution spread upon the record. Gen. Johnson assumed the duties of the position. Mr. M. G. Strauss resigned as secretary in June, and was succeeded by John M. Ormsby.

In July the board established the Agricultural College as a department of the University, and appointed Mr. S. M. Franklin professor of

agriculture and director of experiment stations, to comply with the law for establishing experiment stations.

Mr. Brown resigned in October, 1889, and was succeeded by Dr. F. H. Goodwin, of Tucson. Gen. Johnson resigned in November, and Mr. Merrill P. Freeman was elected to the double position of chancellor and president of the board.

Mr. Ormsby was made treasurer in April, 1890, and resigned in July, when the care of the funds was transferred to the care of the Santa Cruz Valley Bank. During this time the University building was being erected, delayed more or less by lack of means to complete it.

In 1889 the Territorial Legislature appropriated a tax of three-fourths of a mill on one hundred dollars, assessed valuation in the Territory, for the equipment and support of the University, changed in 1892 to one-half mill, and from this source \$60,212.25 have been received up to April 1, 1892.

During the year 1890, with other institutions of similar character, the University became entitled to special appropriations made by Congress for the support of agricultural experiment stations and agricultural colleges.

The first enactment of the colleges, known as the "Morrill Bill," was passed by Congress in 1862, appropriating 30,000 acres of the public lands to each state for each congressional representation, for the support of an agricultural and mechanical college. No funds from this source are available until the Territory becomes a state.

The second enactment of 1887 appropriates \$15,000 per annum to each State and Territory for the support of an agricultural experiment station, where agricultural colleges have been established under the first act, the money to be expended under the direction of the trustees of the colleges.

To secure the use of this fund, the board established the agricultural college and the experiment station, and, with the aid of the governor of the Territory, took steps to secure the funds.

After considerable work on the part of those interested, legislation was secured which entitled Arizona, New Mexico and Utah to the privilege accorded to the states, and each received \$10,-

000 for experiment stations for the year ending June 30, 1890, since which time they have secured the full amount annually.

In 1890 Congress made a further appropriation to supplement the "Morrill Bill" for the support of the agricultural colleges, commencing with the year ending June 30, 1890, \$15,000 for the first year, and an annual increase of the amount of such appropriation thereafter for ten years by an additional sum of one thousand dollars over the preceding year until it shall amount to \$25,000 annually, this sum to be expended only for instruction with special reference to industrial application. One-fifth the first year's appropriation and five per cent. thereafter of the experiment station fund may be expended in buildings, but none of the college fund, it being intended that the several states should supply land and buildings. As soon as the money from these funds was assured, the board took steps to complete the organization of the University and open it to its students.

The establishing act of the Legislature made provision for five schools in the University: First—Department of Science, Literature and the Arts. Second—Department of Theory and Practice and Elementary Instruction. Third—Department of Agriculture. Fourth—Normal Department. Fifth—Department of Mineralogy and the School of Mines. It was thought best to open the University with but two schools for the present—the School of Agriculture and the School of Mines—and make the equipment in these departments as complete as possible.

In August, 1890, Mr. S. M. Franklin resigned the position of professor of agriculture and director of stations, which position he had accepted simply for temporary organization and without compensation, and the board of regents proceeded to elect members of the faculty. The Legislature of 1892 made some changes in the statutes pertaining to the University, changing the number of the appointed members of the board to four, and reducing the three-fourths mill tax for the support of the University to one-half mill.

Of the moneys received from the Territory, some \$66,000 have been expended in buildings, and the remainder in improvements, additions, fitting up of University grounds, compensation and expenses of the members of the board of re-

gents. The appropriation from the General Government for the University has been expended in equipment of laboratories, apparatus, machinery for school of mines, and salaries of faculty; the experiment station fund in equipment of University, Phoenix, Tempe and Yuma experiment stations, for apparatus, expenses, printing and salaries of members of the staff and other employes. The University was opened to students October 1, 1891, and the first session ended June 2, 1892.

The several departments of the institution are independent colleges of equivalent rank, which together constitute the University, and the board has formally placed the responsible management of each in the hands of a director, who is charged with the duty of organizing, equipping and conducting the work of the college. Each director, by approval of the board, lays out the plan of his college, selects his instructors and other assistants, acting as dean of his faculty, and generally as the executive head of the college which he directs. He procures the necessary equipment, lays out work for others, and exercises the functions of president in his particular sphere. The University Council is made up of the directors of all the colleges, one of whom is annually chosen chairman or dean of the University faculty. The council has jurisdiction in matters of general executive character, affecting University policy, and especially in matters affecting the assignment of work which is equivalent to two or more colleges. By this arrangement duplication of work is avoided.

The University faculty is composed of all the directors, professors and acting professors in the different colleges. This body (to which assistant professors and instructors are admitted without voting powers) is charged with the discipline and routine work relating to the students, much the same as in other institutions of learning. The student body comprises several classes, occupying somewhat diverse positions as regards their relation to each other, but all amenable to the direction of the University faculty.

A. Undergraduate students may be either:
1. Regular—In each college there are regular courses leading to degrees. Students pursuing such courses are classed as regulars. All questions pertaining to their entrance, class standing, discipline, and the like, are adjudicated by the

University faculty; or 2. Special—Special students are those who, for any reason, may be pursuing particular lines of study, either under the advice and supervision of the University faculty, or of its committees, or under the care of one of the colleges or its directors. These students are also subject to the regulations of the general faculty.

B. Post-graduate students, graduates of the University of Arizona or of institutions of equal rank, are eligible to special privileges of study, subject always to the control of the general faculty. Certain of these, upon successful competition, may be chosen as fellows, who receive a moderate compensation, while pursuing special post-graduate study. Fellows will be required to assist to a limited degree in the instruction of the lower classes.

Students must pass a thorough examination in the common school branches, be not less than sixteen years of age, and furnish a reference as to good character, if required. Tuition is free. The student pays a matriculation fee of five dollars upon entering, but is at no further expense except for material used in the laboratories, and for books. For those students who do not have facilities at home to prepare them for entering the regular classes of the University, a preparatory class has been established. At first students were obliged to find homes in the city of Tucson, which lies in easy walking distance of the University, but a dormitory has now been built on the grounds where board is furnished at cost to those who prefer the dormitory to boarding with families.

The course in the school of agriculture requires four years' work or its equivalent, and while designed to give especial prominence to the study of the sciences that pertain to agriculture, it constitutes a general education, embracing, as it does, work in mathematics, English, French, German and Spanish, and the natural sciences.

The study of chemistry, botany, horticulture, and the use of water in irrigation, receives special attention, and the class-room drill is supplemented by laboratory and field work practice.

In addition to the prescribed work of thirty-five weeks in the University, students are required to spend three weeks at the experiment stations and on the fruit farms of the Territory during the year, studying and practicing the de-

tails of experimental and farm work, and irrigation, under the supervision of members of the faculty.

Facilities are provided for instruction and practice in the several branches of agriculture and horticulture, and in surveying, leveling, general arrangements of farms, road-making, planning and constructing buildings and fences, care of machinery, laying out canals and ditches, measurement of water, etc.

The school is supplied with well-equipped chemical, botanical and entomological laboratories, and a full set of engineering instruments, including those especially designed for irrigation and meteorological work.

Provision is made for two regular courses leading to the degree of B. S. (bachelor of science), C. E. (civil engineer) and I. E. (irrigation engineer).

In addition to the regular courses of study, facilities are provided for those wishing instruction and practice for a few weeks in surveying, leveling, laying out places, planting, budding, grafting, etc., work which requires skill and special training and some knowledge of which is almost indispensable to many whose time will not permit taking a college course.

The agricultural experiment station is a department of the school of agriculture, and the members of the faculty of the school have been selected with reference to the work of investigation as well as instruction. Four stations have been established in different parts of the Territory, and an extensive variety of fruits and other plants are being tested to determine their economic value. The experiment station is making an exhaustive examination of the irrigation waters used in the Territory, and of the soils of the farming country. Bulletins are issued quarterly, giving results of work, and sent free to any applicant.

The school of mines has a twofold claim upon the attention of citizens of Arizona, especially those who are interested in the mining industries. It seeks to instruct and investigate in its particular lines in much the same manner as this work is performed in the American colleges and experiment stations devoted to agriculture. To these ends, such an equipment has been secured as may best serve the purpose of testing mineral products and mining methods not alone for stu-

dents' use, but also for investigating practical problems which require solution in order to make the most of the natural resources of the Territory.

Provision is made for a faculty comprising professors in mining and meteorology, geology mineralogy, physics and applied mathematics, mechanics and industrial drawing, and other specialties. Besides, these, two of the professors in the school of agriculture are members of the faculty of the school of mines.

In its educational aspect, the school of mines presents opportunities for students which are second to none elsewhere offered. Two courses of study leading to degrees have been established, with higher degrees for advanced standing. Four years successful work entitles graduates to degrees in either mining or metallurgy, according as one or other lines has been selected in the later years of the course. The advanced degrees are mining engineer (M. E.) and metallurgical engineer (Met. E.) The training is rigidly practical, without neglect of the groundwork of principles which are essential to a thorough knowledge of the art and science of mining. Laboratory and field work is given great prominence, and every student is made to handle the tools and operate the machinery with which his own results are to be reached. Provision is also made for special students, who can devote but limited time to particular subjects. For the general public, a series of lectures upon topics connected with mining and the working of ores is given.

The scope of investigation for the benefit of the mining industry is limited only by available funds, within the channels of most advantage to the people at large. Testing laboratories are provided, in which ores are continually being treated upon a working scale.

The members of the faculty are selected with special reference to their fitness to carry on this important work, and residents of Arizona wishing simple tests to determine the presence or absence of valuable metals, may send specimens and receive a report without any charge. The Southern Pacific Railroad has given special rates of freight on large or small lots (one ton or less) shipped to the "Director of the School of Mines" for treatment.

The Territorial Normal School is situated at

Tempe, in Maricopa County, and was founded in 1885, for the purpose of training home talent in the latest and best methods of imparting instruction to the youth. The government of the Normal School is under the control of a board of directors, consisting of the superintendent of public instruction, and four members appointed by the governor. It is considered one of the departments of the University. A curriculum similar to that in other normal schools was prepared, covering a period of three years of study before graduation. The success of this institution is in keeping with the spirit and intelligence of the citizens. In 1893 the Legislature levied a tax to create a building fund to be used in erecting a new normal school building. It was estimated at first that the structure would cost \$46,500. As designed, it was to be three stories high, fireproof, the first story of brown stone and the second and third of pressed brick. The eighteenth Legislature doubled the tax levy for this building. It is a beautiful structure, just finished, the finest and best equipped public building in the Territory. The attendance in 1891 was 34.6; in 1892, was 51.7; 1893, about 80; 1894 about 100; 1895 about 125. To complete the buildings there will be required by the latest estimates a total of \$46,665. Contracts for the stone work to the top of the water table were let for \$6,889. Already the school is famous throughout the Territory.

The Indian school at Phoenix was opened September, 1891, with a capacity of 150 pupils. Having been successfully managed, it has grown rapidly, and the Congress of 1895-96 increased the number of pupils appropriated for from 150 to 250. While the appropriation is for only 250 the superintendent of the school during the last month of September, 1895, enrolled 364 pupils, a number largely in excess of the comfortable capacity of the school. In order to increase the efficiency and usefulness of the school he recommends the erection of additional buildings, which will give him ample accommodations for between four and five hundred pupils. That there is a necessity for increased accommodations is evidenced in the turning away from the school by Superintendent Hall of several hundred applicants since the opening of the school term, September, 1895.

A large school for the Indians of the South-

west and Arizona specially, appears to be a necessity, and the most feasible plan for developing this idea lies along the lines recommended by Superintendent Hall. The location of this school is a most admirable one, so far as the Indian population to be drawn from and the facilities for transporting the pupils to the school are concerned. It has also a well-established plant, ample grounds, comfortable buildings, and all the necessary adjuncts for a successful career. The country contiguous and contributory to it contains an Indian population as follows: Pimas 4,000; Maricopas 200; Papagos 3,500; Apaches, etc., under the San Carlos Agency, 5,000, a total of 12,700; out of which 2,500 can be estimated as of the proper school age. The balance of Arizona has about 21,000 Indians, from which, if necessary, patronage could be drawn for the school, and that at a comparatively small expense. One of the largest items of expenditure in the conduct of a non-reservation school is the collection and transportation of pupils, and in this instance this item would be reduced to as near a minimum as possible. The Pimas, Maricopas, and Papagos are especially interested in the school, and from them alone sufficient pupils could be obtained to fill up its quota.

With the capacity of the school increased to the number suggested by Superintendent Hall it could be readily filled, and it is therefore desirable that this shall be done, provided the appropriation involved will not interfere with the regular appropriations estimated for to maintain Indian schools.

An excellent institution known as the Indian School has been in successful operation about six years in Tucson under the able direction of the Rev. Howard Billman. The school is located about a mile northeast of Tucson and within a quarter of a mile of the Arizona University, and was first opened in 1888. The buildings of the institution were erected at a cost of \$30,000, and, in addition to the grounds, a large farm is owned in the Santa Cruz Valley, on which the boys are taught farming. The school is open to boys and girls, the latter being taught house-

keeping and sewing in addition to a general education. There were in 1894 about 200 or 250 pupils in attendance, supplied from the Papago, Pima and Maricopa tribes. These Indian children are taken in hand from the age of 12 years and upward, and have given evidence of ready adaptation to the requirements of civilization. Under the direction of Mr. Billman the school has made remarkable progress. The records show that at the end of the first day ten Indian children had been in attendance. The quarterly report of March, 1888, showed an enrollment of thirty-one. The year closed with thirty in attendance. Charles E. Walker was acting superintendent. In September, 1889, seventy-eight Indian children were enrolled. The progress of the school has been rapid and the success attending the efforts of the able teachers is an encouragement for the establishment of other educational institutions for Indian youth.

By an act of the seventeenth Territorial Legislature in 1892-93, a reform school was founded and located in Coconino County for the confinement, discipline, education and employment of juvenile offenders, and its government was vested in a board of three trustees, to be appointed by the governor, with the advice and consent of the legislative council. A tax of half a mill on each dollar of assessed property was ordered levied annually to meet the expense of constructing the necessary buildings, and equipping the same; and the board of trustees was authorized to select the location, which they did at Flagstaff. In 1894 work on the buildings was commenced on a tract of one hundred and thirty acres, which had been donated to the school. The building was completed in 1895, and cost about \$20,000. It is a creditable structure. School has not yet been opened therein, but a commencement will soon be made.

Sectarian schools are maintained by the Methodist Episcopal Church South, the Catholics, and the Mormons. The total enrollment in these institutions will not exceed 700, however. The cost of their maintenance is from \$7,500 to \$10,000 annually.

CHAPTER XIII.

ORGANIZATION AND GOVERNMENT—THE OLD SPANISH OWNERSHIP—THE LOUISIANA PURCHASE—
FRENCH AND SPANISH CONTESTS—ARIZONA AS A PART OF NEW MEXICO—TREATY OF GUA-
DALUPE HIDALGO—EXTENT AND VALUE OF THE NEW ACQUISITION—GOVERNMENT
EXPLORATIONS—CREATION AND ORGANIZATION OF ARIZONA TERRITORY—
LOCATION OF THE CAPITAL—FIRST OFFICERS OF THE TERRITORY—
FORMATION OF THE COUNTIES—CHANGES OF THE
CAPITAL—PROCEEDINGS OF THE TERRITORIAL
LEGISLATURE — SUBSEQUENT OFFI-
CIALS OF THE TERRITORY—
PRESENT GOVERNMENT.

In the year 1800 Spain was in possession of, or claimed ownership over, all the territory south of the United States, now comprising Florida, Alabama, Mississippi, Louisiana and the Louisiana Purchase, also the territory embraced in the Texas annexation of 1845, and the Mexican cession by the treaty of Guadalupe Hidalgo. October 1, 1800, after alliance, Spain, by the secret treaty of San Ildefonso, ceded the Province of Louisiana back to France, with no restrictions as to limits, but with her ancient boundaries as they were when France, in 1762, ceded the province to Spain.

This treaty was kept secret for many years. As soon as President Jefferson learned of it, he at once set about obtaining at least a free right of way of the Mississippi. At this time very little was known of the area, resources or physical characteristics of the great country west of the Mississippi. The whole territory was occupied by roving bands of Indians of the most savage and warlike description. There were a few straggling settlements or trading posts in the Red River country, New Mexico, and on the Pacific Coast. The densest ignorance prevailed in regard to the territory. These posts were occupied by Spanish, English, Russian and a few by Americans.

In 1712, Antoine de Crozat received a grant from Louis XIV of the privilege of trading in the country. He was "given the right to dig all sorts of mines, veins and minerals throughout the whole extent of the country of Louisiana, paying as in lieu a fifth part of the gold and silver which the said Sieur Crozat shall transport to France." He was also permitted to search for "precious stones and pearls," and was to pay a fifth part to Louis. The grant was to be forfeited in case Crozat ceased work for a period of three years. How well he succeeded is not known, though he finally surrendered the grant to the crown, and abandoned the colony in 1717. In the same year the grant was made to the Company of the West, afterward the Mississippi Commercial Company, on which was based the well-known John Laws' Mississippi Scheme. This was an utter failure, and ten or fifteen years subsequently the grant was surrendered. That portion of the Province of Louisiana lying east of the Mississippi, including the city of New Orleans, was, in 1762-63, ceded by France to Spain. That portion lying west of the Mississippi River, including what is now known as Idaho, Montana, Wyoming, Oregon and Washington, had already been ceded by the king of France to the king of Spain, in a letter of delivery to Monsieur L'Abbadie, Director-General.

In 1800, by the treaty of San Ildefonso, the Province of Louisiana was transferred back to France by Spain. There had been almost constant trouble between the United States and the Spanish authorities during the period from 1795 to 1800.

In 1803 France, then under the "First Consul," Napoleon Bonaparte, sold to the United States what became and still is known as the "Louisiana Purchase." October 23, 1803, Congress passed an act to enable the president to take possession of this vast territory, and President Jefferson at once proceeded to occupy and take actual possession of the province. But, singular as it may seem, the delivery was not made to the commissioner on the part of France until November 30 of the same year, when it was received from the commissioner on the part of Spain. This was only twenty days prior to its transfer by France to the commissioners on the part of the United States. Anticipating any possible trouble, President Jefferson had the militia from the States of Ohio, Kentucky and Tennessee congregate at Natchez, but no occasion arose for their services. William C. C. Claiborne was appointed Provisional Governor.

It was not until January 16, 1804, that Gen. James Wilkinson, in command of the United States troops, notified the War Department that he had not "until this day" received the delivery of the possession in Upper Louisiana. He had become quite uneasy at the delay of the French and Spanish troops in vacating the province, and complained to the War Department of it. Owing to subsequent acts growing out of rival commercial schemes, the United States and France were hardly on speaking terms. These differences between the two republics were, however, settled by a convention, September 30, 1808. Napoleon, at this date, was still First Consul of France.

In this way the United States succeeded to the title of Spain for the entire province, including the whole country from the Pacific Coast, which now forms the coast line of Oregon and Washington Territory, sweeping down southeasterly, and including Arkansas, Missouri, Iowa, Minnesota, Montana, Idaho, Wyoming, Dakota, Colorado and Nebraska.

The boundaries of the province of Louisiana, as stated by Napoleon, were very indefinite, the treaty itself being couched in terms of "studied

ambiguity." This imbroglia was still further complicated by the stirring events that occurred on the Florida border during our war with England and the reprisals made by Gen. Jackson for the repeated infractions of neutrality by the Spanish authorities. The United States, however, determinedly disregarded the claims of Spain in connection with certain indefinite portions of the boundary, and insisted upon the country, as we have described it. The net cost of the Louisiana Purchase was \$23,529,353. It embraced 756,961,280 acres, which fixes the price per acre at three and three-fifths cents. This rate is much lower than any cession or purchase made by the United States, with the exception of the Alaska Purchase, which cost a fraction less than two cents per acre. The Gadsden Purchase cost \$10,000,000. As to its great fertility, and considering the vast commerce that is transacted throughout the purchase, the province of Louisiana will stand alone as a remarkably well-conducted Yankee bargain.

The area conveyed by this purchase embraced 2,300 square miles in Alabama, 3,600 in Mississippi, 41,346 in Louisiana, 52,202 in Arkansas, 65,370 in Missouri, 73,542 in Kansas, 55,045 in Iowa, 57,531 in Minnesota, west of the Mississippi River, 75,995 in Nebraska, 57,000 in Colorado, 95,274 in Oregon, 150,932 in the Dakotas, 69,994 in Washington, 143,776 in Montana, 86,294 in Idaho, 83,563 in Wyoming, and 68,991 in Indian Territory, lying in what are now known as fifteen States and one Territory, and giving a total of 1,182,752 square miles.

For many years before, the existence of one or more large rivers west of the great water-shed of the Rocky mountains was considered very probable by geographers, including Thomas Jefferson, afterward president of the United States. Search for this supposititious river was vigorously prosecuted by various explorers and others.

The period which elapsed from the first Anglo-Saxon voyages to the Pacific Coast to the discovery of gold forms one of the most interesting chapters in our history. The solitude and primitive order of the vast territory of Alaska, Washington, Oregon and California were utterly unbroken, save by an occasional adventurer; and California was as little known to the world as the fabled garden of Eden. Its solitude was only broken by an occasional hunter and trapper.

The first exploring party was that of Lewis and Clarke. The party consisted of Meriwether Lewis, Captain, U. S. A., First Regiment Infantry (formerly Mr. Jefferson's secretary); William Clarke, First Lieutenant, U. S. A.; John Ordway, Nathaniel Prior, and Patrick Gass, Sergeants, U. S. A.; Chas. Floyd, William Bratton, John Colter, John Collins, Pier Gruzatte, Robert Frazier, Joseph Fields, George Gibson, Silas Goodrich, Hugh Hall, Richard Worthington, Thomas P. Howard, Peter Wiser, John Baptiste Le Page, Francis Labniche, Hugh M'Neal, John Potts, John Shields, George Shannon, John B. Thompson, William Werner, Alexander Willard, Richard Windsor, Joseph Whitehouse, John Newman, George Drewyer or Drulyard, and Tousaint Chabono (the last two interpreters), the wife of the interpreter Chabono, a Snake squaw and her child, and "York," a colored servant to Capt. Clarke, who died at Richmond, Virginia, in the fall of 1879. President Jefferson himself prepared the written instructions for Capt. Lewis. The party in boats entered the Missouri River May 4, 1804.

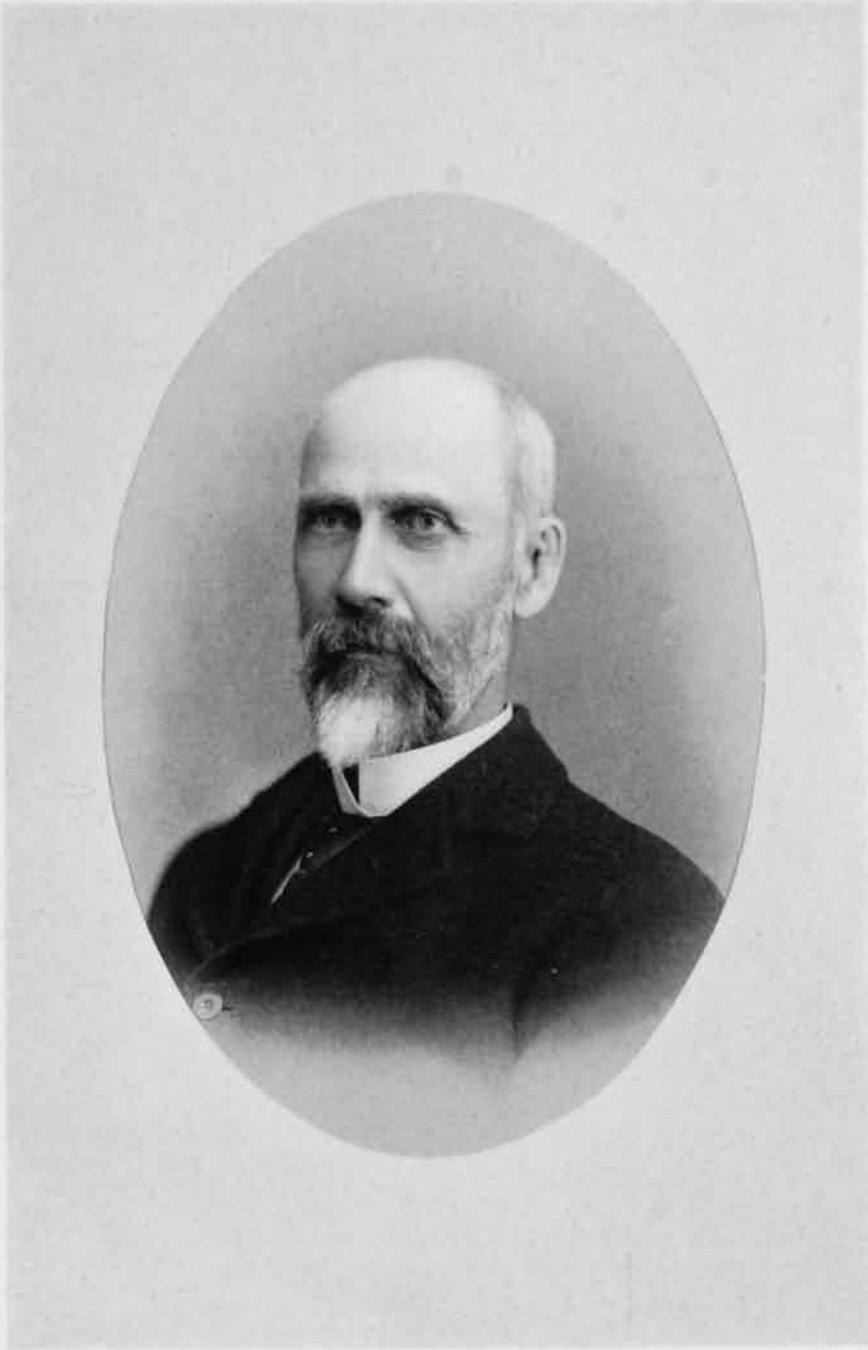
In the year 1810 a new stimulus was given to the commercial interests of the Pacific Coast. John Jacob Astor, of New York, in connection with Wilson P. Hunt, of New Jersey, and others, organized the Pacific Fur Company. In September, 1810, the ship *Tonquin*, with the stores, officers, employés, etc., of this company, sailed from New York, and arrived at the Columbia on the 24th of March, 1811, and established themselves on the southern bank near the mouth, which they named after the founder of the company, Astoria. Astor and Hunt admitted into the company Messrs. McDougal, McKay and Robert and David Stewart, who, at the head of eleven clerks, thirteen Canadian voyagers, and five mechanics, entered upon a most lively and profitable fur trade.

The next most important exploration by United States Government was the Wilkes Expedition. This fleet consisted of the United States ship *Vincennes*, United States ship *Peacock*, United States ship *Relief*, United States brig *Porpoise*, tender *Sea-Gull*, and tender *Flying-Fish*. This fleet, well equipped, and manned with seamen and scientific men, sailed on its mission August 18, 1838; and arrived on April 28, 1841, off Cape Disappointment, near the mouth of the Columbia

River, but, owing to the roughness of the bar, and not knowing the channel, Wilkes headed north, and on the 11th of May entered the Straits of Fuca. From here the expedition continued down the coast, and thence extended its operations to the South Pacific, returning home by China and the Cape of Good Hope.

The solicitude of the Government to ascertain more concerning the region in the vicinity of the Columbia River being settled up with Americans, caused a commission to be issued to John C. Fremont, to explore the Rocky mountains in search of an available pass to the Columbia. In furtherance of this object, Fremont, at the head of a party fitted out for this expedition, left Washington on the 2d of May, 1842; and, after a six months' campaign, in which he extended his explorations no farther than the Rocky mountains, he, on the 29th of October, returned and reported the result of his observations, which were so favorably received by Congress that a second expedition was fitted out, with directions to explore not only a route through the Rocky mountains, but through the greater part of Oregon and California. Fremont was again appointed to command this expedition, consisting of thirty-nine men, which left the Missouri River on their western tour in May, 1843. They reached the Rio Virgen River, a tributary to the Colorado. Indians appeared in bands on the hills, but did not come into camp. For several days they continued up the river, the bottoms of which were thickly overgrown with various kinds of brush; and the sandy soil was absolutely covered with the tracks of Diggers, who followed stealthily, like a band of wolves; and they had no opportunity to leave behind, even for a few hours, the tired animals, in order that they might be brought into camp after a little repose. A horse or mule left behind was taken off in a moment. On either side the valley is bounded by ranges of mountains, everywhere high, rocky and broken. The caravan road was lost and scattered in the sandy country, and they had been following an Indian trail up the river. The hunters the next day were sent out to reconnoiter, and in the meantime they moved about a mile farther up, where they found a good little patch of grass. In a few hours the hunters returned, having found a convenient ford in the river and discovered the Spanish trail on the other side.

For fifty years prior to the war with Mexico,



A. C. Sheldon

in 1846-47, there were few important events in Spanish Arizona. An Indian outbreak in 1802, the Mexican Revolution of 1822, and the Apache uprising of 1827, were the leading events. The latter ended Spanish or Mexican rule in Arizona. Tubac was really abandoned in 1840, although the Government troops found a Mexican force there in 1846-47, and the Boundary Commission found about thirty soldiers there in 1850. Several ranchees were held only by sufferance of the Indians. Mining was substantially suspended. Tubac and Tucson were protected from complete devastation by small companies of soldiers. Mexican authority north of Tucson and west of Rio Grande existed in name only. Only two important points were occupied in a business way—one on the Gila, where the Pima and Maricopa villages still exist, and the other at Papogueria, where the Papagos maintained a struggle against the Apaches, whom they usually defeated.

The Apache Indian, superior in strength to the Mexican, had gradually extirpated almost every trace of civilization, and roamed, uninterrupted and unmolested, sole possessor of what was once a thriving and popular Spanish province. Thus it remained until its acquisition by the Americans.

That portion of Arizona lying north of the Gila River and all of the Territory of New Mexico, together with a considerable area that was added to Colorado, Utah and Nevada, was ceded to the United States by the treaty of Guadalupe-Hidalgo, signed February 2, 1848, at the close of the Mexican War. The country was then formally turned over to the United States by the Mexican authorities; American troops took possession of Tucson and Tubac; the Mexican colors were lowered, the stars and stripes hoisted in their place, and the authority of the Great Republic established where Spaniard and Mexican held sway for more than two hundred years.

By act of Congress, approved September 9, 1850, New Mexico was defined and made a Territory. "Provided, it may be divided into two or more Territories, and Provided, that when admitted as a State it shall be with or without slavery, as its constitution may provide." New Mexico was estimated to contain at that time (including Arizona) 100,000 Mexicans, 25,000 Indians and 25,000 Americans.

That part of Arizona lying south of the Gila River was obtained by purchase from the Govern-

ment of Mexico, under the treaty made by James Gadsden, on the part of the United States, at Mexico, December 30, 1853; and extends west from 109 degrees meridian of longitude to the 115th degree, and north from 31 degrees 20 seconds of north latitude to the Gila River.

The price paid for this piece of land, embracing some 40,000 square miles, was \$10,000,000. It was generally considered a barren desert and not worth purchasing at any price, but subsequent discoveries of gold have made it a valuable acquisition. But it would have been of more value if the original idea of Gadsden of securing the port of Guaymas and control of the gulf had been carried out. But the region was practically unknown to the American people. "There is not a reason to doubt," says Hinton, "that the original idea of the acquisition formed a point in the scheme for establishing a Southern Confederacy, which was a vigorous conception in many minds at that time."

Not a single American inhabitant was said to have been in the entire bounds of Arizona in 1847. Before its separate territorial organization, the only really American settlements within the present lines were some mining camps on the western edge of Mohave County, in the Hualupais, Peacock and Cerbat mountains. In addition to these were a few Americans, chiefly mining managers, engineers and employes, who, from 1858 to 1861, and again in 1863-64, were in and about Tucson, Tubac and elsewhere. All else, and there was little else outside of officials and troops, were Mexicans and Indians, variously estimated at from 10,000 to 25,000 souls.

A joint commission appointed by the United States and Mexican Governments began a survey of the boundary between the two nations in the summer of 1849. The work occupied several years and was of great benefit in giving a knowledge of the character of the country along that line and its resources. The first commissioner appointed was John B. Weller, and Andrew B. Gray, a well-known engineer, was made surveyor. Maj. W. H. Emory, Capt. E. L. F. Hardcastle, and Lieut. E. W. Whipple. United States Engineer Corps, were detailed for the scientific and field work.

The commission first assembled at San Diego, California, and in February, 1850, finding it almost impossible to advance beyond the Colorado, be-

cause of the difficulties of outfitting, an adjournment was held till November of the same year. Col. Fremont was soon after substituted for Mr. Weller, but did not enter on the duties of his position, because of his election from California to the United States Senate. J. D. Bartlett, Esq., of Providence, Rhode Island, was commissioned in June, 1850, and entered at once on the active discharge of the required work. Among those connected with the commission was its secretary, Dr. James H. Webb, of Boston, afterward well known to the country for the part he took some five years later in organizing the Free State Emigration to Kansas, as the Secretary of the New England Emigrant Aid Society. Lieut. J. G. Strain, United States Navy, was also a member. He will be remembered because of his untimely death while conducting an exploration of the Panama Isthmus. Andrew B. Gray remained as surveyor. He afterward conducted the first railroad exploration on the thirty-second parallel. Capt. Edward Barry, a Mexican War volunteer, took charge of the mechanics and laborers. The final boundary survey was completed by Maj. Emory and Lieut. Michler, in 1855. Col. J. C. Cremony, a well-known San Francisco gentleman, and author of "Life Among the Apaches," who afterward served with the California column of volunteers that, under Gen. J. H. Carleton, in 1862-63, reoccupied Arizona for the Union during the Civil War, was employed as interpreter. George Thurber, whose name is known as a scientist, was the botanist of the commission, and Theodore F. Moss acted as geologist and mining engineer. Among other names, since better known to the country, who served with the commission, are those of Gen. Ambrose E. Burnside, afterward United States Senator, and Col. Michler, of the Engineer Corps. On the Mexican Commission, or connected therewith, now familiar to Anglo-American ears, was that of Lieut. Dias, afterward President of the Mexican Republic.

Much difference of opinion prevails concerning the derivation and the meaning of the word "Arizona," the most probable being either *ari*, few or small, and *zoni*, fountain, or *arida*, dry, and *zona*, zone. Either one conveys a correct idea, as the fountains are both small and few, and, generally speaking, it is an arid land. By this it is not intended to say that it is without water or

verdure, for that would be very far from the truth, but there are large areas devoid of water, and almost so of verdure, and the generally received impression of the landscape is that of a blistered, sun-scorched country. Hundreds of thousands of acres in bodies are sandy and dry, upon which glistens the alkali in the sunshine. The most probable theory of the use of the name is that it is a corruption of "Arizuma," first applied to the country by the early Spanish explorers. Some maintain that the word is of Pima origin, and means "Little Creek;" others that it refers to the traditionary maiden queen who once ruled over all the Pima nation. Before it was conferred on the whole Territory it was borne by a mountain near the celebrated Planchas de Plata, on the southern boundary of the Territory.

An old Aztec tradition says: "The earth is the offspring of the sky. Long prior to the present race of men, the earth was peopled by a race of giants who in time died off, leaving the earth uninhabited. After a long time, a celestial virgin, a child of one of the thirteen great deities who rule all things, came down to the earth, and, being well pleased, remained for a long time its sole inhabitant. Once when in a deep sleep, a drop of dew from heaven fell on her, and she conceived and bore two children, a son and a daughter, from whom have sprung all the people of the earth. The name of this celestial virgin was Arizuma, the beautiful, or sun-beloved maiden."

The Mohave language, which is by far the most perfect and complete of any of the Indian dialects of the country, has two words of nearly the same meaning.

Arizona remained as part of New Mexico attached to Doña Ana County until 1863. On the last day of December, 1854, a memorial to Congress was introduced in the Legislature of New Mexico by the representative from Doña Ana County, praying for the organization of the Territory into a separate political division. The name first chosen was "Pimeria," but the one afterward adopted was "Arizona." These first attempts to secure a Territorial government proved failures, and it was not until nearly ten years later that the object was attained, and the act received the President's signature. In 1857, an act to organize the Territory was introduced in Congress, but failed. Senator Gwin, of California, introduced a bill in the Senate to organize the Territory. Mr.

Green, of Missouri, in 1860 introduced a bill to provide a "temporary government for the Territory of Arizuma," which also failed. In 1860, Sylvester Mowry was appointed to go to Washington and urge the passage of the bill, but political jealousies and the breaking out of the Civil War postponed the matter. But the efforts of Mowry—his lectures on the resources of Arizona—awakened an interest in this section which eventually secured the passage of the Act of Organization and Separation from New Mexico.

The act establishing the Territory of Arizona was approved by the President on the 24th of February, 1863. Section 1 of the act described the boundaries as follows:

"All that portion of the present Territory of New Mexico situated west of a line running due south from the point where the southwest corner of the Territory of Colorado joins the northern boundary of the Territory of New Mexico. to the Southern boundary line of said Territory of New Mexico be, and the same is hereby erected into a temporary government by the name of the Territory of Arizona."

This section also provided that Congress might at any time divide the Territory or change the boundaries. The second section made provision for the appointment of Territorial officers, and extended to Arizona all the laws and enactments of the Territory of New Mexico not inconsistent with the provisions of the act, until they should be repealed or amended by future legislation.

Section 3 enacted "that there shall neither be slavery nor involuntary servitude in the said Territory otherwise than in the punishment of crimes, whereof the parties shall have been duly convicted; and all acts, either of Congress or of the Territory of New Mexico, establishing, regulating, or in any way recognizing the relation of master and slave in said Territory, are hereby repealed."

The Territory thus organized was estimated to contain at that time 126,141 square miles. The Territory was formally organized by the territorial officers at Navajo Springs, forty miles west of Zuni, December 29, 1863. The officers there took the oath of office.

By Act of February 24, 1866, the territory that now forms the southwest corner of Nevada, and which lies west of the mouth of the Grand Cañon, and to the north and west of the Black Boulder,

Virgin and Iceberg cañons of the Río Colorado, was added to Nevada. It contains 12,225 square miles and reduced Arizona to its present area.

The capital was first located twenty-two miles north of Prescott, by proclamation of the Governor, at Fort Whipple, which had been erected by order of Gen. Carleton for protection of the miners then working the placers of Sierra Prieta.

The civil officers appointed to conduct the affairs of the new Territory entered on their duties at Navajo Springs, forty miles west of Zuni, the twenty-ninth day of December, 1863, amidst a general rejoicing, the firing of guns, and addresses. Thus was inaugurated the Territorial government of Arizona. The "government" remained at the Springs but a short time, and then moved westward and established itself at Prescott. The capital was removed to Tucson in 1867, but in January, 1877, was again returned to Prescott. In 18— it was permanently located at Phoenix.

Governor Goodwin issued a proclamation for the organization of the Territorial Government, and Hon. R. C. McCormick, then Secretary of the Territory, in conformity therewith, delivered the following formal address at Navajo Springs:

"Gentlemen: As the properly qualified officer, it becomes my duty to inaugurate the proceedings of the day. After a long and trying journey we have arrived within the limits of the Territory of Arizona. These broad plains and hills form a part of the district over which, as the representatives of the United States, we are to establish a civil government. Happily, although claimed by those now in hostility to the Federal arms, we take possession of the Territory without resort to military force. The flag which I hoist in token of my authority, is no new and untried banner. For nearly a century it has been the recognized, the honored, the loved emblem of law and liberty. From Canada to Mexico, from the Atlantic to the Pacific, millions of strong arms are raised in its defense, and above the efforts of all foreign or domestic foes, it is destined to live untarnished and transcendent."

The first officers of Territory were as follows: Governor, John N. Goodwin,* of Maine:

*John A. Gurley, of Ohio, was first appointed governor, but died before taking possession of his office.

secretary, Richard C. McCormick, of New York; chief justice, Wm. F. Turner, of Iowa; associate justices, William T. Howell, of Michigan, and Joseph P. Allyn, of Connecticut; district attorney, Almon Gage, of New York; surveyor-general, Levi Bashford, of Wisconsin; marshal, Milton B. Duffield, of California; superintendent Indian affairs, Charles D. Poston, of Kentucky.

The population of the Territory at its organization was roughly estimated at 20,000. The number of Indians was put down at from 45,000 to 58,000. About half of these were set down as friendly to the whites; the other half hostile. But all these estimates were found to be wide of the mark, as shown by the first census taken thereafter. Since the surrender of the Apaches to Gen. Crook, however, the population has rapidly increased, and the whole Territory is now in a prosperous condition.

The first session of the Legislature of Arizona Territory was held the fourth day of October, 1864. At that session the Territory was divided into four counties—Pima, Yuma, Mohave and Yavapai. In 1871, the Legislature organized the county of Maricopa out of Yavapai County. In 1875, the county of Pinal was organized out of Pima, Maricopa and Yavapai. In 1879, the county of Apache was organized out of Yavapai County. In 1881, the county of Gila was organized out of portions of Pinal and Maricopa. In 1881, Graham County out of Pima and Apache. In 1881, Cochise was organized from Pima County. Coconino was organized in 1893 and Navajo in 1895.

There are now twelve counties, as follows: Apache, Cochise, Coconino, Gila, Graham, Maricopa, Mohave, Navajo, Pima, Pinal, Yavapai and Yuma.

The members of the Legislature were as follows: Council—Mark Aldrich, Coles Bashford, Henry A. Bigelow, Patrick H. Dunne, Robert W. Groom, George W. Leihy, Francisco S. Leon, José M. Redondo and King S. Woolsey. House—Nathan B. Appel, Thomas J. Bidwell, John M. Baggs, Luis G. Bouchet, John G. Capron, J. M. Elias, James Garvin, James S. Giles, Gregory P. Harte, Norman S. Higgins, George M. Holaday, Gilbert W. Hopkins, Henry D. Jackson, W. Claude Jones, Jackson McCrackin, Daniel H. Stickney, Edward D. Tuttle and William Walter.

The officers of the Council were: President,

Coles Bashford; secretary, Almon Gage, assistant secretary, Edmund W. Wells, Jr.; chaplain, Henry W. Fleury; translator and interpreter, W. Claude Jones; sergeant-at-arms, Carlos Smith; doorkeeper, James H. Lane; messenger, Neri Osborne; watchman, Thomas J. Johnson.

The officers of the House were: Speaker, W. Claude Jones; chief clerk, James Anderson; assistant clerk, Clayton M. Ralstin; chaplain, Henry W. Fleury; translator and interpreter, W. Claude Jones; sergeant-at-arms, John C. Dunn; doorkeeper, Robert F. Piatt; messenger, John B. Osborne; watchman, Alex. McLaughlin.

Acts were passed for the formation of the Territory into four counties, as stated before, for the promotion of education, for the organization of companies of rangers, for the appropriation of money to cover public expenditures, for the incorporation of the Arizona Railway Company, etc., etc.

The second session of the Legislature convened at Prescott, on the sixth day of December, 1865. An act was passed to create the county of Pah-Ute, from the county of Mohave. An act creating a Board of Supervisors in the several counties of the Territory. A memorial regarding the death of Abraham Lincoln. In relation to placer mining and mines. In relation to liens.

The officers of the Territory were: Governor, John N. Goodwin; secretary, Richard C. McCormick; assistant secretary, Henry W. Fleury; chief justice, William F. Turner; associate justice, Henry T. Backus; associate justice, Joseph P. Allyn; district attorney, Almon Gage; surveyor-general, John A. Clarke; United States marshal, Milton B. Duffield; superintendent Indian affairs, George W. Leihy.

The members of the Legislature were:

Yavapai County.—Council, King S. Woolsey, Robert W. Groom, Henry A. Bigelow; House, Jackson McCracken, James S. Giles, Daniel Ellis, James O. Robertson. Mohave County.—Council, William H. Hardy; House, Octavius D. Gass, C. W. C. Rowell. Yuma County.—Council, Manuel Ravenna; House, Peter Doll, Alexander McKey, William K. Henninger. Pima County.—Council, Coles Bashford, Francisco S. Leon, Patrick H. Dunne; House, Daniel H. Stickney.

The officers of the Council were: President, Henry A. Bigelow, secretary, James Anderson; assistant secretary, Marcus D. Dobbins; trans-

lator and interpreter, Alex. McKey; sergeant-at-arms, Thos. J. Bidwell; doorkeeper, John H. Dickson; messenger, Thaddeus Buckman; watchman, John R. Masterson.

The officers of the House were: Speaker, James S. Giles; chief clerk, James E. McCaffrey; assistant clerk, Edmund W. Wells, Jr.; translator and interpreter, Alexander McKey; sergeant-at-arms, William G. Poindexter; doorkeeper, John J. Backus; messenger, John W. Osborne; watchman, Robert F. Piatt.

The third session was held in Prescott, beginning on the third day of October, 1866.

Among other acts passed at this session was one to create the office of Territorial Auditor; one to provide for the civil expenses of the Territorial Government; one concerning roads and highways, and one to create the office of District Attorney:

The officers of the Territory, in 1866, were: Governor, Richard C. McCormick; secretary, James P. T. Carter; assistant secretary, Henry W. Fleury; chief justice, William F. Turner; associate justice, Henry T. Backus; associate justice, Joseph P. Allen; surveyor-general, John A. Clark; United States marshal, Edward Phelps; superintendent Indian affairs, George W. Leihy;* attorney-general, Coles Bashford; adjutant-general, William H. Garvin; auditor, James Grant; treasurer, John T. Alsap; delegate to Congress, John N. Goodwin.

The members of the Legislature were:

Yavapai County.—Council, W. Simmons, Daniel S. Lount, Lewis A. Stevens; House, John B. Slack, Daniel Ellis, Hannibal Sybert, William S. Little, Underwood C. Barnett. Mohave County.—Council, William H. Hardy; House, Alonzo E. Davis. Pah-Ute County.—Council, Octavius D. Gass; House, Royal J. Cutler. Yuma County.—Council, Alexander McKey; House, Marcus D. Dobbins, Robert F. Piatt, William H. Thomas. Pima County.—Council, Mark Aldrich, Mortimer R. Platt, Henry Jenkins; House, Granville H. Oury, William J. Osborn, Henry McC. Ward, James S. Douglass, Oscar Buckalew, Michael McKenna, Solomon W. Chambers, Thomas D. Hutton.

The officers of the Council were: President, Mark Aldrich; secretary, John M. Rountree; as-

sistant secretary, William Cory; translator and interpreter, Octavius D. Gass; chaplain, Charles M. Blake; sergeant-at-arms, A. John Moore; doorkeeper, Julius Sanders; messenger, Neri F. Osborn; watchman, Thomas W. Simmons; engrossing clerk, Lafayette Place; enrolling clerk, Joseph C. Lennon.

The officers of House were: Speaker, Granville H. Oury; chief clerk, James S. Giles; assistant clerk, Ralph Shelton; translator and interpreter, Octavius D. Gass; chaplain, Charles M. Blake; sergeant-at-arms, Thomas Hodges; doorkeeper, Andrew H. Elliott; messenger, John W. Osborn; watchman, Daniel M. Bornman; engrossing clerk, Ralph Shelton; enrolling clerk, Henry Clifton.

The fourth session was held at Prescott, commencing on the fourth day of September, 1867. During this session acts were passed as follows: To authorize sheriffs to employ convicts at some kind of labor; to prevent and punish the sale of liquor to Indians; authorizing the construction of wells on desert roads; to punish vagrants, vagabonds, and suspicious persons; to prevent the improper use of deadly weapons; to permanently locate the capital at Tucson.

The officers of the territory were: Governor, Richard C. McCormick; secretary, James P. T. Carter; assistant secretary, Henry W. Fleury; chief justice, William F. Turner; associate justice, Henry T. Backus; associate justice, Harley H. Cartter; surveyor-general, Lawrens Upson; United States marshal, Edward Phelps; superintendent Indian affairs, George W. Dent; adjutant-general, William H. Garvin; auditor, James Grant; treasurer, John T. Alsap; delegate to Congress, Coles Bashford.

The members of the Legislature were: Yavapai County.—Council, John W. Simmons, Daniel S. Lount, Lewis A. Stevens; House, James S. Giles, John A. Rush, John H. Mathews, Edward J. Cook, Allen Cullumber, John T. Dare. Mohave County.—Council, William H. Hardy; House, Nathaniel S. Lewis. Pah-Ute County.—Council, Octavius D. Gass; House, Royal J. Cutler. Yuma County.—Council, Alexander McKey; House, Oliver Lindsey, B. W. Hanford, John Henion. Pima County.—Council, Daniel H. Stickney, Henry Jenkins, Mortimer R. Platt; House, Charles W. Lewis, John B. Allen, Marvin M. Richardson, Underwood C. Barnett,

* Killed by the Indians November 18, 1866.

Francis M. Hodges, Solomon W. Chambers, Philip Drachman.

The officers of the Council were: President, Octavius D. Gass; secretary, Almon Gage; assistant secretary, William H. Ford; chaplain, Charles M. Blake; sergeant-at-arms, George Lount; doorkeeper, Julius Saunders; messenger, Coles Bashford; watchman, James B. McKinnie; engrossing clerk, George W. Barnard; enrolling clerk, Joseph C. Lennon.

The officers of the House were: Speaker, Oliver Lindsey; chief clerk, Follett G. Christie; assistant clerk, Augusta Brichta; chaplain, Thomas H. Head; sergeant-at-arms, Horace E. Lindsey; doorkeeper, George W. Huff; messenger, Henry Wunderlick; watchman, Thomas Vonday; engrossing clerk, Joseph P. Bourke; enrolling clerk, Joseph Tyson.

The fifth session convened in Tucson, on the tenth day of December, 1868. During this session acts were passed to permanently locate the Territorial prison; to create the office of Attorney-General; to establish public schools in the Territory (also, a memorial in regard to artesian wells); to prevent and punish the sale of arms and ammunition to Indians.

The officers of the Territory were: Governor, Richard C. McCormick; secretary, James P. T. Carter; chief justice, William F. Turner; associate justice, Henry T. Backus; associate justice, Harley H. Cartter; surveyor-general, Sherman Day; United States marshal, Edward Phelps; superintendent Indian affairs, George W. Dent; adjutant-general, Daniel H. Stickney; auditor, Charles H. Lord; treasurer, John B. Allen; delegate to Congress, Coles Bashford.

The Legislature was as follows: Yavapai County.—Council, John G. Campbell, John T. Alsap, F. M. Chapman; House, Thomas W. Brooks, Follett G. Christie, William S. Little, John Smith, E. Lumbley, G. R. Wilson. Yuma County.—Council, Joseph K. Hooper; House, James P. Lugenbul, Thomas J. Bidwell, Oliver Lindsey. Mohave and Pah-Ute Counties.—Council, Octavius D. Gass. Mohave County.—House, U. C. Doolittle. Pah-Ute County.—House, Andrew S. Gibbons. Pima County.—Council, Estevan Ochoa, Daniel H. Stickney, Alexander McKay, Henry Jenkins*; House, Jesus M. Elias, Francis H. Goodwin, Hiram S. Stevens, John

*Died during session, November 20, 1868.

Owen, Robert M. Crandall, John Anderson, Sol. W. Chambers.

The officers of the Council were: President, John T. Alsap; secretary, G. W. Pierce; assistant secretary, A. W. Haskell; chaplain, A. B. Salpointe; sergeant-at-arms, M. M. McKenna; doorkeeper, James Speedy; messenger, M. Ramirez; watchman, W. G. Knight; engrossing clerk, L. M. Jacobs; enrolling clerk, B. M. Jacobs.

The officers of the House were: Speaker, Thomas J. Bidwell; chief clerk, James E. McCaffry; assistant clerk, Charles H. Naylor; sergeant-at-arms, Reuben Jones; doorkeeper, William C. Furguson; watchman, Abraham Lyon; engrossing clerk, L. D. McCormick; enrolling clerk, Clark W. Culver; messenger, Feliciano Montano.

The sixth session was held at Tucson, beginning the eleventh day of January, 1871.

At this session the act creating the county of Pah-Ute out of the county of Mohave was repealed. Acts were passed to create the county of Maricopa; to fix the time of holding the general elections for the Territory; to provide revenue for the Territory of Arizona, and counties thereof; concerning divorces; to provide for a revision and printing of the laws.

The officers of the Territory, in 1871, were: Governor, A. P. K. Safford; secretary, Coles Bashford; chief justice, John Titus; associate justice, Isham Reavis; associate justice, C. A. Tweed; district attorney, C. W. C. Rowell; surveyor-general, John Wasson; marshal, I. Q. Dickason; superintendent Indian affairs, Herman Bendell; collector internal revenue, Thomas Cordis; assessor internal revenue, H. A. Bigelow; United States depositary, C. H. Lord; department collector customs, James E. Baker; register land office, W. J. Berry; recorder land office, George Lount; delegate to Congress, R. C. McCormick; adjutant-general, Samuel Hughes; auditor, Charles H. Lord, treasurer, John B. Allen; attorney-general, James E. McCaffrey.

The Legislature was: Yavapai County.—Council, John T. Alsap, Harley H. Cartter, Andrew J. Marmaduke; House, J. H. Fitzgerald, John L. Taylor, William J. O'Neil, G. A. Wilson, Joseph Melvin, James L. Mercer. Yuma

[Note.—The sessions of the Legislature were changed, in 1868, from yearly sessions, held in December, to biennial sessions, held in January, and the one next following the change was held in 1871.]

County.—Council, John H. Phillips; House, Marcus D. Dobbins, C. H. Brinley, Thomas J. Bidwell. Pima County.—Council, Hiram S. Stevens, Daniel H. Stickney, Estevan Ochoa, Francisco S. Leon; House, J. W. Anderson, F. H. Goodwin, William Morgan, W. L. Fowler, Ramon Romano, Juan Elias, Rees Smith.

Mohave and Pah-Ute counties seen not to have been represented.

The officers of the Council were: President, Daniel H. Stickney* (succeeded by Harley H. Cartter); secretary, John Anderson; assistant secretary, William J. Osborn; Chaplain, Antonio Jouvencean; sergeant-at-arms, John W. Owen; doorkeeper, Martin Sweeney; messenger, Martin Hinds; watchman, William Kelley; watchman, William H. Reed; engrossing clerk, Joseph A. Byers; enrolling clerk, Henry Smithson.

The officers of the House were: Speaker, Marcus D. Dobbins; chief clerk, William J. Boyd†; chief clerk, James E. McCaffrey; assistant clerk, James E. McCaffrey; assistant clerk, John H. Purcell; chaplain, Peter Bernal; sergeant-at-arms, David Gibson; doorkeeper, Samuel C. Whipple; messenger, George H. Tinker; watchman, William G. Knight; engrossing clerk, Solomon W. Chambers; enrolling clerk, Charles H. Naylor.

The seventh session was held in Tucson, beginning on the sixth day of January, 1873.

During this session, acts were passed to provide for obtaining the statistics of the Territory; to appropriate money for educational purposes; to encourage the sinking of artesian wells; to provide for the incorporation of religious, social and benevolent societies.

The officers of the Territory, in 1873, were: Governor, A. P. K. Safford; secretary, Coles Bashford; chief justice, John Titus; associate justice, C. A. Tweed; associate justice, De Forest Porter; district attorney, James E. McCaffrey; surveyor-general, John Wasson; United States marshal, I. Q. Dickason; superintendent Indian affairs, Herman Bendell; collector internal revenue, Thomas Cordis; assessor internal revenue, H. A. Bigelow; United States depository, C. H. Lord; department collector customs, J. W. Hopkins; register land office, W. N. Kelley; re-

order land office, George Lount; adjutant-general, J. S. Vosberg; auditor, A. C. Benedict; treasurer, John B. Allen; attorney-general, James E. McCaffrey; delegate to Congress, R. C. McCormick.

The Legislature was: Yavapai County.—Council, A. O. Noyes, J. P. Hargrave; House, John H. Behan, William Cole, Fred Henry, Thomas Stonehouse, Henry Wickenburg. Yuma County.—Council, Thomas J. Bidwell; House, C. W. C. Rowell, J. M. Redondo, C. H. Brinley. Yavapai and Maricopa County.—Council, King S. Woolsey. Maricopa County.—House, G. H. Oury. Yuma and Mohave County.—Council, W. F. Henning; House, George Gleason. Pima County.—Council, H. S. Stevens, Mark Aldrich, Juan Elias, Levi Ruggles; House, John B. Allen, William C. Davis, Lionel M. Jacobs, J. S. Vosberg, F. M. Larkin, John Montgomery, John T. Smith, John W. Sweeney.

The officers of the Council were: President, J. P. Hargrave; secretary, J. T. Alsap; assistant secretary, William J. Osborn; chaplain, Rev. G. A. Reeder; sergeant-at-arms, J. S. Douglass; doorkeeper, Cerelio S. Leon; messenger, Master J. Holt; watchman, W. C. Ferguson; engrossing clerk, A. Caballero; enrollment clerk, A. Brichta.

The officers of the House were: Speaker, G. H. Oury; chief clerk, Hyler Ott; assistant clerk, William Wood; chaplain, Rev. Antonio Jouvencean; sergeant-at-arms, Edwin Preble; doorkeeper, John McCann; page, Elmore E. Rowell; watchman, John Dobbs; engrossing clerk, Wm. Ohnesorgen; enrolling clerk, Jacob L. Cohn.

The eighth session was held in Tucson beginning on the fourth day of January, 1875. At this session, acts were passed to create the county of Pinal; to encourage the sinking of artesian wells; to provide for care of indigent persons; to tax the net proceeds of mines; to permanently locate the Territorial seat of Government at Tucson; to establish public schools in the Territory of Arizona.

The officers of the Territory were: Governor, A. P. K. Safford; secretary, Coles Bashford; chief justice, E. F. Dunne; associate justice, C. A. Tweed; associate justice, De Forest Porter; district attorney, James E. McCaffrey; surveyor-general, John Wasson; marshal, F. H. Goodwin; collector internal revenue, Thomas Cordis; United States depository, C. H. Lord; depart-

*Daniel H. Stickney died before the end of the session, and Harley H. Cartter was elected President of the Council.

†William J. Boyd resigned, and James E. McCaffrey was made chief clerk, and John H. Purcell, assistant.

ment collector customs, J. W. Hopkins; register land office, W. N. Kelley; recorder land office, George Lount; register land office, Levi Ruggles; recorder land office, M. L. Stiles; delegate to Congress, Hiram S. Stevens; adjutant-general, J. S. Vosberg; auditor, A. C. Benedict; treasurer, P. R. Tully.

The Legislature was: Yavapai County.—Council, J. P. Hargrave, John G. Campbell, L. S. Stevens; House, C. P. Head, Hugo Richards, A. L. Moeller, Levi Bashford, W. J. O'Neil, Gideon Brooke. Maricopa County.—Council, King S. Woolsey; House, John T. Alsap, Granville H. Oury. Mohave County.—Council, A. E. Davis; House, S. W. Wood. Yuma County.—Council, J. M. Redondo; House, H. Goldberg, Samuel Purdy, Jr., R. B. Kelley. Pima County.—Council, William Zeckendorf, S. R. De Long, P. R. Brady; House, F. M. Griffin, John Montgomery, George H. Stevens, Alphonso Rickman, S. H. Drachman, J. M. Elias.

The officers of the Council were: President, King S. Woolsey; chief clerk, E. S. Penwell; assistant clerk, C. F. Cote; sergeant-at-arms, W. J. Tompkins; doorkeeper, John Castillo; messenger, Antonio Van Alstine; watchman, Robert Frazier; engrossing clerk, J. H. C. Waltemoth; enrolling clerk, A. Brichta.

The officers of the House were: Speaker, J. T. Alsap; chief clerk, Andrew Cronley; assistant clerk, S. W. Carpenter; sergeant-at-arms, Joseph Phyl; doorkeeper, Robert Plumridge; page, Ignatio Ortiz; watchman, Henry Gifford; engrossing clerk, C. W. Culver; enrolling clerk, C. H. Naylor.

The ninth session was held in Tucson, beginning on the first day of January, 1877. Acts were passed to permanently locate the Territorial seat of government at Prescott, Yavapai County; to authorize the Governor to raise a company of volunteers to protect the settlers against hostile Indians; to provide for the civil expenses of the Territorial Government; to provide for a revision and publication of the laws of the Territory of Arizona.

The officers of the Territory were: Governor, A. P. K. Safford; secretary, John P. Hoyt; chief justice, C. G. W. French; associate justice, C. A. Tweed; associate justice, De Forest Porter; district attorney, E. B. Pomeroy; surveyor-general, John Wasson; United States marshal, W. W.

Stondefer; collector internal revenue, Thomas Cordis; United States depositary, C. H. Lord; department collector of customs, J. W. Hopkins; register land office, W. N. Kelley; recorder land office, George Lount; register land office, C. D. Poston; recorder land office, M. L. Styles; adjutant-general, C. E. Curtis; auditor, J. S. Vosberg; treasurer, P. R. Tully; delegate to Congress, H. S. Stevens.

Members of the Legislature were: Yavapai County.—Council, John A. Rush, George D. Kendall, Lewis A. Stevens, Andrew L. Moeller; House, W. W. Hutchinson, C. B. Foster, S. C. Miller, G. Hathaway, Hugo Richards, John H. Marion, Wm. S. Head, Ed. G. Peck. Maricopa County.—Council, King S. Woolsey; House, J. A. Parker, M. H. Calderwood. Yuma County.—Council, J. M. Redondo; House, J. W. Dorrington. Pinal County.—Council, Levi Ruggles; House, George Scott. Pima County.—Council, F. H. Goodman, F. G. Hughes; House, D. A. Bennett, Wm. Ohnesorgen, Estevan Ochoa, M. G. Samaniego, George H. Stevens. Mohave County.—House, James P. Bull.

The officers of the Council were: President, King S. Woolsey; chief clerk, John T. Alsap; assistant clerk, Hylor Ott; sergeant-at-arms, B. A. Hussey; doorkeeper, E. D. Wood; messenger, Sterling R. Wood; watchman, John Ammerman; engrossing clerk, Mary Stevens Maxey; enrolling clerk, Ida McIvor Stevens.

The officers of the House were: Speaker, M. H. Calderwood; chief clerk, Andrew Cronley; assistant clerk, Thomas J. Drum; sergeant-at-arms, John H. Behan; doorkeeper, W. D. Fenter; messenger, Horace B. Appel; watchman, John Dobbs; engrossing clerk, G. W. Jones; enrolling clerk, Arthur Borton.

The tenth session was held in Prescott, beginning on the sixth day of January, 1879. Among the sixty-five acts passed at this session were the following: To provide a sinking fund for the redemption of Territorial prison bonds; to restrict gambling; to establish public schools in the Territory of Arizona; to fix the time for holding the district courts; to create the county of Apache.

The officers of Territory were: Governor, John C. Fremont; secretary, John J. Gosper; chief justice, C. G. W. French; associate justice, De Forest Porter; associate justice, Charles Silent; district attorney, E. B. Pomeroy; surveyor-



Thos. D. Satterwhite

general, John Wasson; marshal, C. P. Dake; collector internal revenue, Thomas Cordis; United States depository, C. H. Lord; department collector customs, J. W. Hopkins; register land office, W. N. Kelley; receiver, George Lount; delegate to Congress, John G. Campbell; adjutant-general, William Bashford; auditor, E. P. Clark; treasurer, T. J. Butler.

Members of the Legislature were: Yavapai County.—Council, C. C. Bean, W. S. Head, W. A. Rowe, E. W. Wells; House, W. M. Buffum, John Davis, Thomas Fitch, Pat. Hamilton, P. McAteer, E. R. Nicoles, J. A. Park, James Stinson. Maricopa County.—Council, E. H. Gray; House, John T. Alsap, J. D. Rumburg. Yuma County.—Council, F. D. Welcome; House, Samuel Purdy, Jr. Pinal County.—Council, P. Thomas; House, W. K. Meade. Pima County.—Council, F. G. Hughes, J. M. Kirkpatrick; House, A. E. Fay, C. P. Leitch, James Speedy, M. W. Stewart, Walter L. Vail. Mohave County.—House, John H. Behan.

The officers of the Council were: President, F. G. Hughes; chief clerk, Hinson Thomas; assistant clerk, Neri Osborn; sergeant-at-arms, J. E. McDowell; doorkeeper, Henry Krowell; page, Sterling R. Wood; watchman, O. F. McCarty; engrossing and enrolling clerk, Hattie Sprinkle.

The officers of the House were: Speaker, M. W. Stewart; chief clerk, B. A. Fickas; assistant clerk, C. M. Marshall; sergeant-at-arms, G. W. Carpenter; doorkeeper and assistant sergeant-at-arms, Thomas Steen; pages, Manuel Padillo, Henry Thibido; watchman, J. E. Brown; engrossing and enrolling clerk, Mattie Tucker; assistant and enrolling clerk, Miss Parker.

The eleventh session was held in Prescott, beginning January 3, 1881. At this session, among other acts, were the following: To create the county of Cochise; to create the county of Gila; to create the county of Graham; to prevent the destruction of fish; to incorporate the city of Phoenix; to incorporate the city of Prescott; to incorporate the city of Tombstone; to encourage mining; to create the office of Territorial Geologist; to provide for the taking the census of the several counties in the Territory.

The officers of Territory, in 1881, were: Governor, John C. Fremont; secretary, John J. Gosper; chief justice, C. G. W. French; associate justice, De Forest Porter; associate justice, W. H.

Stillwell; district attorney, E. B. Pomeroy; surveyor-general, John Wasson; marshal, C. P. Dake; collector internal revenue, Thomas Cordis; United States depository, C. H. Lord; department collector customs, J. W. Hopkins; register land office, W. N. Kelley; recorder land office, George Lount; register land office, Henry Cousins; recorder land office, J. G. Daily; delegate to Congress, G. H. Oury; adjutant-general, Clark Churchill; auditor, E. P. Clark; treasurer, T. J. Butler.

The Legislature was: Pima County.—Council, B. H. Hereford, B. A. Fickas, Geo. H. Stevens, W. K. Meade, H. G. Rollins; House, H. M. Woods, J. K. Rodgers, M. G. Samaniego, John Roman, John McCaffety, Thos. Dunbar, E. H. Smith, John Haynes, E. B. Gifford, M. S. Snyder, M. K. Lurty. Pinal County.—Council, J. W. Anderson; House, D. Robb, A. J. Doran. Yavapai County.—Council, M. Masterson; House, Geo. E. Erown, R. B. Steadman, L. Wollenburg. Yuma County.—Council, J. W. Dorrington; House, G. W. Norton, I. F. Knapp. Apache County.—Council, S. Barth; House, J. Barton, G. R. York. Maricopa County.—Council, A. C. Baker, R. S. Thomas; House, W. Sahrp, P. J. Bolan, J. R. McCormack. Mohave County.—Council, A. Cornwall; House, D. Southwick.

The officers of the Council were: President, Murat Masterson; chief clerk, Jos. C. Perry; assistant clerk, Neri Osborn; sergeant-at-arms, Henry Krowell; assistant sergeant-at-arms, T. J. Morgan; doorkeeper, C. J. Franklin; pages, E. K. Ellis, Chas. Parker; watchman, D. Dwyer; engrossing and enrolling clerk, Mattie Tucker; assistant enrolling clerk, Carrie Wilkins; journal clerk, Georgia McClintock.

The officers of the House were: Speaker, J. F. Knapp; chief clerk, Richard Rule; assistant clerk, Frank Murphy; sergeant-at-arms, John H. Marion; assistant-at-arms, D. C. Steadman; pages, A. W. Robinson, Claud Cook; watchman, F. Delaney; engrossing and enrolling clerk, Angie Mitchell; assistant enrolling clerk, Ida Burnett; journal clerk, A. D. Snedeker.

The twelfth session was held in Prescott, beginning the eighth day of January, 1883. At this sessions acts were passed requiring every road overseer to put up at the forks of every highway and every crossing of county roads within his road district, a guide or fingerboard to protect

landmarks; to establish a public school system; to prohibit the keeping of opium dens; to encourage the cultivation of cotton; to re-incorporate the city of Tucson; to prevent the cutting and shipping of timber beyond the limits of the Territory.

The officers of the Territory, in 1883, were: Governor, F. A. Tritle; secretary, H. M. Van Arman; assistant secretary, H. P. Garthwaite; treasurer, T. J. Butler; auditor, E. P. Clark; attorney-general, Clark Churchill; surveyor-general, J. W. Robbins; adjutant-general, M. H. Sherman; superintendent public instruction, W. B. Horton; chief justice, Sumner Howard; associate justice, D. H. Pinney; associate justice, W. F. Fitzgerald; United States marshal, Z. L. Tidball; United States court commissioner, Wm. H. McGrew; United States district attorney, J. A. Zabriskie; collector internal revenue, S. W. Fisher; department collector internal revenue, R. J. Butler; register land office, T. Wing; recorder land office, Alex. W. De Long.

Members of the Legislature were: Cochise County.—Council, E. H. Wiley; House, W. H. Savage, D. K. Wardwell, J. F. Duncan. Cochise and Graham Counties.—Council, P. J. Bolan; House (Graham County), A. Solomon, D. Snyder. Yavapai County.—Council, E. W. Wells, M. Goldwater, Murat Masterson, F. K. Ainsworth; House, C. A. Randall, A. Allen, R. McCallum, R. Connell, E. H. Gobin, John Ellis, Charles Taylor, W. A. Rowe. Gila County.—House, William Graves. Apache County.—Council, H. E. Lacy; House, C. A. Franklin. Maricopa County.—Council, A. D. Lemon; House, J. P. Holcomb, S. F. Webb. Mohave and Yuma Counties.—Council, L. S. Welton; House (Mohave County), L. J. Lassell; House (Yuma County), J. W. Dorrington. Pima County.—Council, J. F. Knapp, F. G. Hughes; House, R. C. Brown, E. B. Gifford, Moyer Wicks, J. H. Fawcett. Pinal and Pima Counties.—Council, J. W. Davis; House (Pinal County), J. W. Anderson.

The officers of the Council were: President, Edwin H. Wiley; chief clerk, J. H. Carpenter; sergeant-at-arms, James Speedy; watchman, J. S. Furnas; engrossing and enrolling clerk, Samuel Furman; messenger, C. L. Cook; chaplain, E. G. Fowler.

The officers of the House were: Speaker,

Winthrop A. Rowe; chief clerk, A. E. Fay; sergeant-at-arms, Warren J. Pace; watchman, Joe Curtis; engrossing and enrolling clerk, C. Douglass Brown; messenger, M. Archibald; chaplain, W. S. Truett.

In 1885 the officers were: Governor, F. A. Tritle; secretary, H. M. Van Arman; chief justice, Sumner Howard; associate justice, Daniel H. Pinney; associate justice, W. G. Fitzgerald; United States district attorney, J. A. Zabriskie; United States marshal, Z. L. Tidball; surveyor-general, Royal A. Johnson; register land office, Thos. Wing; register land office, B. M. Thomas; recorder land office, Chester Thomas; recorder land office, Daniel H. Wallace; delegate in Congress, C. C. Bean; attorney-general, Clark Churchill; adjutant-general, M. H. Sherman; auditor, E. P. Clark; treasurer, T. J. Butler.

The officers of thirteenth Legislative Assembly were: Council—President, F. K. Ainsworth; chief clerk, A. E. Fay; assistant chief clerk, R. Z. Pryke; sergeant-at-arms, Patrick Hamilton; enrolling and engrossing clerk, W. S. Hodges; watchman, John Roberts; messenger, John Robinson; chaplain, Nathan Guthrie. House—Speaker, H. G. Rollins; chief clerk, Morris Goldwater; assistant chief clerk, Z. H. Carpenter; enrolling and engrossing clerk, F. Ingoldsby; sergeant-at-arms, W. A. Cuddy; watchman, J. P. Burnett; messenger, John Reilly; chaplain, J. M. Greene.

The members of the Council were: Apache County, E. S. Stover; Cochise County, W. A. Harwood; Gila County, Alonzo Bailey; Graham County, W. G. Bridwell; Maricopa County, R. B. Todd; Mohave County, John Howell; Pima County, R. N. Leatherwood; Pinal County, Thos. Weedon; Yavapai County, W. G. Stewart; Yuma County, J. W. Dorrington; Northern District, F. K. Ainsworth; Southern District, C. C. Stephens.

The members of the House were: Apache County, I. D. Houck, Luther Martin; Cochise County, W. F. Frame, T. T. Hunter, W. F. Nichols, Hugh Percy, D. K. Wardwell; Gila County, W. C. Watkins; Graham County, James Sias; Maricopa County, J. S. Armstrong, De Forest Porter; Mohave County, Wm. Imus; Pima County, E. W. Aram, G. W. Brown, S. M. Franklin, E. W. Risley, H. G. Rollins; Pinal County, Levy Ruggles; Yavapai County, D. I. Brannen,

J. A. Brown, R. Connell, L. P. Nash, W. H. Robbins; Yuma County, S. Purdy.

In 1887 the officers were: Governor, C. M. Zulick; secretary, Jas. A. Bayard; chief justice, Jas. H. Wright; associate justice, W. W. Porter; associate justice, W. H. Barnes; United States district attorney, O. T. Rouse; United States marshal, W. K. Meade; surveyor-general, John Hise; register land office, J. L. Camp; recorder land office, D. J. Sullivan; register land office, A. D. Duff; recorder land office, F. W. Smith; delegate to Congress, M. A. Smith; attorney-general, Briggs Goodrich; adjutant-general, J. F. Meador; auditor, John J. Hawkins; treasurer, C. B. Foster.

The officers of the fourteenth Legislative Assembly were as follows: Council—President, A. Cornwall; chief clerk, Chas. Driscoll; enrolling and engrossing clerk, J. J. Stein; sergeant-at-arms, Wash. French; watchman, James Butler; messenger, Crook Marion; chaplain, J. G. Eberhart. House—Speaker, Samuel F. Webb; chief clerk, Richard Rule; enrolling and engrossing clerk, J. S. Taylor; sergeant-at-arms, C. F. Kathrens; watchman, Thos. Pierson; messenger, Harry Brown; chaplain, J. C. Houghton.

The members of the Council were: Apache County, J. H. Breed; Cochise County, L. W. Blinn; Gila County, P. C. Robertson; Graham County, Geo. H. Stevens; Maricopa, L. H. Goodrich; Pima County, Chas. R. Drake; Pinal County, J. W. Anderson; Yavapai County, C. B. Foster; Yuma County, Isaac Lyons; Northern District, A. Cornwall; Southern District, W. C. Watkins.

The members of the House were: Apache County, James Scott, J. Q. Adamson; Cochise County, J. M. Bracewell, M. Gray, F. W. Heyne, B. L. Peel, Scott White; Gila County, E. J. Trippe; Graham County, D. H. Wing; Maricopa County, J. Y. T. Smith, Samuel F. Webb; Mohave County, P. F. Collins; Pima County, A. A. Bean, R. N. Leatherwood, A. McKay, J. B. Scott, C. R. Wores; Pinal County, A. J. Doran; Yavapai County, H. T. Andrews, W. H. Ashurst, O. C. Felton, J. J. Fisher, A. G. Oliver; Yuma County, Chas. Baker.

In 1889 the Territorial officers were as follows: Governor, Lewis Wolfley; secretary, N. O. Murphy; attorney-general, Clark Churchill; adjutant-

general, Wm. O. O'Neill; auditor, Thomas Hughes; treasurer, J. Y. T. Smith; commissioner of immigration, John A. Black; superintendent of public instruction, Geo. W. Cheyney.

The officers of the fifteenth Legislative Assembly were: Council—President, Chas. R. Drake; chief clerk, J. H. Carpenter; enrolling and engrossing clerk, W. D. Shearer; sergeant-at-arms, Wm. A. Linn; watchman, J. M. More; messenger, D. L. Hughes; chaplain, R. A. Windes. House—Speaker, J. Y. T. Smith; chief clerk, F. S. Ingalls; enrolling and engrossing clerk, John E. Brown; sergeant-at-arms, Geo. W. Chapman; watchman, John Dobbs; messenger, Crook Marion; chaplain, R. W. Pearson.

The members of the Council were: Apache County, E. J. Simpson; Gila County, G. F. Peters; Maricopa County, S. F. Webb; Mohave County, W. H. Hardy; Pima County, Chas. R. Drake; Pinal County, R. E. Sloan; Cochise County, Geo. W. Cheyney; Graham County, Burt Dunlap; Yuma County, J. W. Dorrington; Yavapai County, J. M. W. Moore; Northern District, L. H. Orme; Southern District, G. W. Hoadly.

The members of the House were: Apache County, J. A. Johnson, Charles Flinn; Maricopa County, J. C. Jordan, J. Y. T. Smith; Mohave County, Thos. Halleck; Pima County, J. J. Chatham, Louis Martin, J. S. O'Brien, H. B. Tenney, H. D. Underwood; Graham County, Geo. H. Stevens; Cochise County, Geo. H. Dailey, Grant Hicks, John O. Robbins, J. O. Stanford, Alex. Wight; Gila County, J. C. Jones; Yuma County, Samuel Purdy; Yavapai County, C. D. Brown, J. L. Fisher, J. V. Rhoades, F. L. Rogers, Geo. P. Thornton.

In 1891 the Territorial officers were: Governor, John N. Irwin; secretary, N. O. Murphy; treasurer, Wm. Christy; auditor, Thomas Hughes; attorney general, Wm. Herring; adjutant general, E. S. Gill.

The officers of the sixteenth Legislative Assembly were: Council—President, F. G. Hughes; chief clerk, C. M. Strauss; enrolling and engrossing clerk, Fred. Newell; sergeant-at-arms, C. W. Culver; watchman, Thos. Pearson; messenger, F. A. Stroud; chaplain, D. F. Fuller. House—Speaker, C. S. Clark; chief clerk, Chas. F. Hoff; enrolling and engrossing clerk, J. B. Taylor; sergeant-at-arms, J. E. Boyd; watchman, M. An-

girre; messenger, Willie Dunbar; chaplain, G. L. Pearson.

The members of the Council were: Apache County, E. J. Simpson; Gila County, G. T. Peter; Maricopa County, C. M. Zulick; Mohave County, F. S. Dennis; Pima County, F. G. Hughes; Pinal County, A. J. Doran; Cochise County, J. V. Vickers; Graham County, P. M. Thurmond; Yuma County, A. Frank; Yavapai County, J. C. Herndon; Northern District, Harris Baldwin; Southern District, P. R. Brady.

The members of the House were: Apache County, Frank Hart, J. T. Lesueur; Cochise County, C. S. Clark, S. M. Burr, F. W. Heyne, Thos. Dunbar, J. H. Tevis; Gila County, R. B. Moore; Graham County, D. Gough; Maricopa County, T. E. Farish, L. H. Chalmers; Mohave County, M. C. Copeland; Pima County, M. G. Samaniego, Thos. Driscoll, C. C. Suter, Geo. Pusch, Gus A. Hoff; Pinal County, J. B. Allen; Yuma County, C. H. Brinley; Yavapai County, J. W. Dougherty, J. J. Fisher, S. C. Mott, J. A. Vail, M. A. Freeze.

In 1893 the Territorial officers were as follows: Governor, L. C. Hughes; secretary, N. A. Morford; treasurer, J. A. Fleming; auditor, H. C. Boone; attorney-general, F. J. Heney; adjutant-general, Ed. Schwartz; superintendent of public instruction, F. J. Netherton.

The officers of the seventeenth Legislative Assembly were: Council—President, T. G. Norris; chief clerk, H. C. Boone; enrolling and engrossing clerk, W. C. Foster; sergeant-at-arms, W. T. McNelloy; watchman, W. D. Ganzhorn; messenger, Floyd Stroud; chaplain, W. E. Vaughn. House—Speaker, Frank Baxter; chief clerk, M. Gervais; enrolling and engrossing clerk, J. S. Taylor; sergeant-at-arms, W. C. Truman; watchman, Isaac Barth; messenger, Albert Behan; chaplain, Jean Vane.

The members of the Council were: Apache County, J. A. Hubbell; Coconino County, F. R. Nellis; Gila County, E. J. Edwards; Maricopa County, W. T. Smith; Mohave County, F. S. Dennis; Pima County, W. M. Lovell; Pinal County, A. J. Doran; Cochise County, Geo. W. Cheyney; Graham County, C. M. Shannon; Yuma County, M. J. Nugent; Yavapai County, J. J. Hawkins; at large, T. G. Norris.

The members of the House were: Apache County, R. C. Dryden, Luther Martin; Coco-

nino County, H. D. Ross; Cochise County, A. C. Wright, James Reilly, M. Gray; Gila County, G. W. P. Hunt; Graham County, Geo. Skinner, A. D. Brewer; Maricopa County, Frank Baxter, H. C. Rogers, J. A. Marshall, M. E. Hurley; Mohave County, David Southwick; Pima County, C. F. Schumaker, Chas. Mehan; R. N. Leatherwood, J. W. Bruce; Pinal County, T. C. Graham, W. T. Day; Yavapai County, S. P. Behan, D. A. Burke, J. D. Cook; Yuma County, D. M. Field.

In 1895 the officers of the Territory were as follows: Governor, L. C. Hughes;* secretary, Charles M. Bruce; assistant secretary, F. B. Devereux; treasurer, P. J. Cole; deputy treasurer, D. A. Abrams; auditor, C. P. Leitch; attorney-general, T. D. Satterwhite; deputy attorney-general, L. H. Chalmers; adjutant-general, Ed. Schwartz; superintendent of public instruction, F. J. Netherton.

The officers of the eighteenth Legislative Assembly were as follows: Council—President, A. J. Doran; chief clerk, Chas. F. Hoff; enrolling and engrossing clerk, A. R. Edwards; sergeant-at-arms, J. J. Frasier; watchman, Frank Martinez; messenger, C. W. Williams; chaplain, Rev. G. L. Pearson. House of Representatives—Speaker, J. H. Carpenter; chief clerk, C. D. Reppy; enrolling and engrossing clerk, L. B. Hayes; sergeant-at-arms, M. H. Calderwood; watchman, I. L. Ayers; messenger, Roy Street; chaplain, W. L. Albright.

The members of the eighteenth Legislative Assembly were as follows: Council—Apache County, F. T. Aspinwall; Cochise County, B. A. Packard; Coconino County, E. J. Babbitt; Gila County, E. J. Edwards; Graham County, Bert Dunlap; Maricopa County, Henry E. Kemp; Mohave County, Wm. H. Lake; Pima County, J. B. Scott; Pinal County, Thos. Davis; Yavapai County, John S. Jones; Yuma County, M. J. Nugent; at large, A. J. Doran.

House of Representatives—Apache County, Geo. H. Crosby, Will C. Barnes; Cochise County, A. C. Wright, C. L. Cummings, H. C. Herrick; Coconino County, E. F. Greenlaw; Gila County, G. W. P. Hunt; Graham County, Joseph Fish, Geo. W. Skinner; Maricopa County, A. E. Hinton; J. A. Marshall, Niels Petersen, Perry Wild-

* Removed from office March 30, 1896, and B. J. Franklin was appointed to fill the vacancy.

man; Mohave County, O. D. M. Gaddis; Pima County, M. W. Bernard, H. K. Chenoweth, James Finley, M. G. Samaniego; Pinal County, Thos. E. Baker, M. R. Moore; Yavapai County, Thos. H. Brown, G. W. Hull, J. C. Martin; Yuma County, J. H. Carpenter.

Judicial Department.—Supreme Court.—Chief justice, A. C. Baker, Phoenix. Associate justices, J. D. Bethune, Tucson; Owen T. Rouse, Florence; John J. Hawkins, Prescott; clerk, J. L. B. Alexander, Phoenix. District Court, first judicial district.—Judge, J. D. Bethune, Tucson. Clerks, A. J. Halbert, Tucson; Scott White, Tombstone. Commissioners, D. G. Chalmers, Tucson; J. S. Taylor, Nogales; E. A. Nichols, Willcox; James F. Duncan, Tombstone; J. W. Wright, Bisbee. District Court, second judicial district.—Judge, Owen T. Rouse, Florence. Clerks, Thomas F. Weedon, Florence; Alonzo Bailey, Globe; B. B. Adams, Solomonsville. Commissioners, O. N. Creswell, Globe; Thomas F. Weedon, Florence; George Hyatt, Solomonsville. District Court, third judicial district.—Judge, A. C. Baker. Clerks, J. E. Walker, Phoenix; Charles H. Williams, Yuma. Commissioners, J. W. Crenshaw, Phoenix; John R. Marable, Yuma. District Court, fourth judicial district.—Judge, John J. Hawkins. Clerks, Andrew J. Herndon, Prescott; L. O. Cowan, Kingman; John Vories, Flagstaff; Alfred Ruiz, St. Johns. Commissioners, H. T. Andrews, Prescott; John Vories, Flagstaff; William G. Blakeley, Kingman; F. J. Walton, Holbrook. United States district attorney, E. E. Ellingwood, Tucson. United States marshal's office, district of Arizona.—Marshal, W. K. Meade, Tucson; deputy marshals, S. A. Bartelson, Florence; W. R. Campbell, Winslow; Alexander Ezekiel, Tucson; J. R. Lowry, Prescott; Frank Morrell, Williams; J. K. Murphy, Phoenix; George A. Olney, Solomonsville; John W. Slankard, Phoenix; Charles Smith, Bisbee; R. M. Templeton, Yuma; J. H. Thompson, Globe; Scott White, Tombstone. United States surveyor-general's office.—Surveyor-general, Levi H. Manning; chief clerk, George J. Roskruege, Tucson; public land clerk, William B. Brown, Tucson; draftsmen, Charles von Erxleben and James H. Martineau; mineral clerk, August A. Lysight. United States land office, Tucson.—Register, Eugene J. Trippel, Yuma; receiver, Edward R. Monk, Will-

cox; clerk, Lucy J. Freis, Tucson. United States land office, Prescott.—Receiver, Jake Marks, chief clerk, C. W. O'Sullivan.

United States Internal Revenue—District of New Mexico, including Arizona.—Collector, C. M. Shannon, Santa Fe, New Mexico; chief clerk, Florence A. Hughes, Santa Fe, New Mexico; deputy, first division, Charles L. Betterton, Santa Fe, New Mexico; deputy, second division, William Burns, Albuquerque, New Mexico; deputy, third division, Benjamin J. Crawford, Tucson, Arizona; gaugers, Robert Harvey, Santa Fe, New Mexico; William T. McCreight, Albuquerque, New Mexico.

United States Customs Service, District of Arizona.—Collector of customs, Sam F. Webb, Nogales; special deputy collector, Frank M. King, Nogales; clerks, S. M. Aguirre, F. J. Duffy, Nogales; assayer, F. J. Heyne, Nogales; inspectors, R. H. Reynolds, H. Hanna, J. P. Welsh, R. M. Catlett, G. W. Webb, J. M. Miller, S. W. Finley; inspectors—Nogales, E. Hanna; Buenos Ayres, J. F. Kellner, P. J. Hobson; Yuma, J. L. Powell, William Dunbar. Deputy collector, Edwin Mayes, Yuma.

United States Indian Agencies.—Pima Agency, J. Roe Young, agent, Sacaton; Colorado River Agency, Charles E. Davis, Parker; Navajo Agency, Lieut. E. H. Plummer, acting agent, Fort Defiance; San Carlos Agency, Capt. Albert L. Myer, acting agent, San Carlos.

National Guard of Arizona.—Staff of the Governor and commander-in-chief: Adjt.-Gen. Ed. Schwartz (ex officio quartermaster and chief of ordnance), Phoenix; surgeon-general, Col. Scott Helm, Phoenix; judge-advocate-general, Col. Joseph Campbell, Phoenix; inspector of small-arms practice, Maj. H. F. Robinson, Phoenix; special aid-de-camp, Capt. John T. Hughes, Tucson; chaplain, Capt. Winfield Scott, Phoenix. First Regiment, headquarters Tucson.—Colonel, John H. Martin, Tucson; lieutenant-colonel, A. J. Doran, Florence; majors, S. Hochderffer, R. Allyn Lewis, Phoenix, and John A. Black, Tucson; adjutant, First Lieut. B. W. Tichenor, Tucson; quartermaster, First Lieut. Geo. W. Cheyney, Tombstone; commissary, First Lieut. J. H. Carpenter, Yuma; surgeon, Maj. George E. Goodfellow, Tucson; assistant surgeons, Capt. D. J. Brannen, Flagstaff, and First Lieut. Charles H. Jones, Tempe. Company A, Globe, Capt. James

Wiler. Company B, Phoenix, Capt. J. J. Wickham. Company C, Tempe, Capt. W. E. Mullin. Company D, Tucson, Capt. Philip Contzen. Company E, Mesa City, Mesa, Capt. R. H. Brown. Company F, Tucson, Capt. J. M. Trayer. Company H, Yuma, Capt. F. S. Ingalls. Company I, Flagstaff, Capt. Hochderffer. Company K, St. Johns, Capt. Walter Scott.

Board of Loan Commissioners.—Governor, Louis C. Hughes, Tucson; territorial secretary, Charles M. Bruce, Phoenix; territorial auditor, C. F. Leitch, Phoenix. E. E. Jordan, secretary board, Phoenix.

Board of Equalization.—C. P. Leitch, third judicial district; Morris Goldwater, fourth judicial district; H. C. Boone, second judicial district; H. D. Underwood, first judicial district. Secretary of board, A. M. Franklin, Phoenix.

Board of Control.—L. C. Hughes, governor; C. P. Leitch, auditor; Myron H. McCord, citizen member. Clerk board, Ed. Schwartz, Phoenix.

Directors of the Insane Asylum.—Ira B. Hamblin, resident physician and superintendent, Phoenix; Mrs. L. L. Hamblin, matron, Phoenix; Eugene Hackett, steward, Phoenix.

Live Stock Sanitary Commission.—Colin Cameron, chairman of board, Pima County; F. O. Richmand, veterinary surgeon and ex officio secretary; M. E. Hurley, Maricopa County; Price Behan, Yavapai County.

Board of Education of Normal School.—Rev. Daniel Kloss, president; F. J. Netherton, secretary; P. J. Cole, treasurer; J. T. Moriarty, J. F. Wilson, Prescott.

Territorial Board of Immigration Commissioners.—William H. Hattich, Cochise County, Tombstone; Herbert Brown, Pima County, Tucson; George H. Kelly, Graham County, Solomonsville; A. H. Hackney, Gila County, Globe; John W. Dorrington, Yuma County, Yuma; Anson H. Smith, Mohave County, Kingman; Orick Jackson, Yavapai County, Prescott; F. W. Wallace, Navajo County, Winslow; T. C. Jordan, Maricopa County, Phoenix; C. M. Funston, Coconino County, Flagstaff.

Officers of the Territorial Prison.—Thomas Gates, superintendent; M. F. Shaw, assistant superintendent; Harry McKean, secretary; P. G. Cotter, prison physician, Yuma.

Regents of the University.—Rev. Howard Billman, chancellor; J. G. Hilzinger, secretary; S. M.

Franklin, treasurer; Gov. L. C. Hughes, ex officio member; F. J. Netherton, ex officio member; E. R. Monk, member.

Fish and Game Commissioner.—Edward Schwartz, Phoenix.

Sheep Inspectors.—W. H. Campbell, Navajo; Colin Cameron, Pima; Philip Clark, Pima; John A. Croken, W. H. Gibbons, Apache County.

Board of Registration of Dentistry.—A. A. Doherty, Nogales; Joseph Hardy, Phoenix; E. C. Hyde, Phoenix; H. C. Jessop, Phoenix; F. A. Odermatt, Tucson.

Quarantine Health Officer.—Dr. George E. Goodfellow, Tucson.

COUNTY OFFICERS.

Apache County.—L. J. Brown, chairman board of supervisors, Nutrioso; W. H. Gibbons, member board of supervisors, St. Johns; Gustave Decker, member; N. Gonzales, clerk board of supervisors, St. Johns; Willard Farr, probate judge and ex officio school superintendent, St. Johns; W. H. Burbage, district attorney, St. Johns; N. Gonzales, county recorder, St. Johns; James Scott, sheriff and ex officio assessor; Albert F. Patter, treasurer and ex officio tax collector, St. Johns.

Cochise County.—J. S. Williams, chairman board of supervisors, Bisbee; A. M. Gilmore, member board; John Montgomery, member of board; W. A. Howell, clerk of the board, Tombstone; C. S. Fly, sheriff, Tombstone; J. V. Vickers, treasurer and ex officio tax collector, Tombstone; A. Wentworth, recorder, Tombstone; George W. Swain, district attorney, Tombstone; W. S. Bradley, probate judge and ex officio county school superintendent; H. G. Howe, surveyor; Tombstone; J. H. Wright, assessor, Willcox.

Coconino County.—A. A. Dutton, chairman board of supervisors, Flagstaff; C. H. Schultz, supervisor, Flagstaff; F. R. Mellus, supervisor, Williams; C. A. Bush, clerk of board of supervisors, Flagstaff; R. H. Cameron, sheriff, Flagstaff; A. T. Cornish, treasurer, Flagstaff; N. G. Dayton, probate judge, Flagstaff; C. A. Bush, recorder, Flagstaff; J. E. Jones, district attorney; Oscar Gibson, clerk of district court.

Gila County.—Edward H. Cook, chairman board of supervisors, Globe; David Devore, B. F. Stewart, members of the board of supervisors; Mills Van Wagener, probate judge, ex officio

county school superintendent; J. W. Wentworth, district attorney, Globe; J. H. Thompson, sheriff and assessor, Globe; H. C. Hitchcock, treasurer and tax collector; G. M. Allison, recorder and clerk board of supervisors; O. N. Creswell, clerk of district court; Alex. G. Pendleton, surveyor.

Graham County.—Henry Hill, chairman board of supervisors, Clifton; F. W. Hayes, member board of supervisors, Fort Grant; A. H. Bennett, member board, Safford; Manuel Leon, clerk, Solomonsville; W. L. Smith, district clerk, Solomonsville; Arthur A. Wright, sheriff, Solomonsville; H. L. Smith, chief deputy sheriff; Wiley E. Jones, district attorney, Solomonsville; Frank Dysart, treasurer, Solomonsville; Manuel Leon, recorder; B. B. Adams, clerk district court, Solomonsville; George Cluff, probate judge, Solomonsville; George Hyatt, court commissioner.

Maricopa County.—J. T. Priest, chairman board of supervisors, Tempe; W. L. George, member, Phoenix; W. A. Kimball, Mesa; W. I. Cox, clerk board of supervisors; Lin Orme, sheriff; D. L. Murray, treasurer and ex officio tax collector; J. W. Kincaid, recorder; Jerry Millay, district attorney; J. E. Walker, clerk district court; Lewis Jordan and C. H. Knapp, deputy clerks; J. L. B. Alexander, clerk supreme court; C. W. Crouse, probate judge and ex officio county school superintendent.

Mohave County.—William Grant, chairman board of supervisors, Hackberry; William Frost, member of board, Pima; John M. Johnson, member of board, Pima; L. O. Cowan, clerk, Pima; John M. Murphy, district attorney, Pima; Harvey Hubbs, treasurer, Pima; L. O. Cowan, county recorder, Kingman; J. E. Perry, probate judge, Kingman; James Roseborough, sheriff, Kingman.

Navajo County.—E. A. Sawyer, treasurer, Winslow; F. W. Nelson, recorder, Winslow; J. H. Willice, supervisor, Winslow; J. H. Bowman, supervisor, Winslow; J. H. Breed, super-

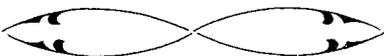
visor, Winslow; E. H. Webb, surveyor, Winslow; C. H. Owens, sheriff, Winslow; W. M. Perrill, district attorney, Winslow; F. M. Zuck, probate judge, Winslow.

Pima County.—James Finley, chairman board of supervisors, La Osa; Z. T. Vail, Vail's Ranch; C. S. Shoemaker, Tucson; Fred G. Hughes, clerk of the board; John S. Woods, probate judge, Tucson; William M. Lovell, district attorney, Tucson; Robert N. Leatherwood, sheriff, Tucson; R. A. Johnson, treasurer, Tucson; C. A. Shibell, recorder, Tucson; Henry Levin, assessor, Tucson; — Constance, surveyor, Tucson.

Pinal County.—A. S. Barker, chairman board of supervisors; Charles T. Bennett, member; William N. Lannigan, member; Jose M. Ochoa, clerk; D. C. Stevens, probate judge; F. M. Doane, district attorney; J. M. Ochoa, recorder; W. C. Truman, sheriff; Thomas Weedon, clerk district court; E. O. Stratton, treasurer; W. H. Merrill, surveyor.

Yavapai County.—J. W. Smith, Thomas Roach and John Wood, supervisors; Charles Akers, clerk of board; Charles P. Hicks, probate judge; Gov. F. A. Tritle, county recorder; F. A. Tritle, Jr., deputy recorder; M. O. Archibald, deputy recorder; J. M. Watts, deputy recorder; H. R. Tritle, deputy recorder; Robert E. Morrison, district attorney; George C. Ruffner, sheriff; J. P. Dillon, under-sheriff; John Hartin, county treasurer; H. H. Carter, assessor; A. J. Herndon, clerk of the court; William Wilkerson, deputy clerk of the court.

Yuma County.—B. A. Harazthy, chairman board of supervisors; G. Gondolfo, supervisor; A. Modesti, supervisor; Mel Greenleaf, sheriff; William B. Hodges, deputy sheriff; C. H. Brinley, clerk district court; A. Frank, probate judge and ex officio county superintendent of schools; M. L. Pool, recorder and clerk of board of supervisors; Sam Purdy, district attorney; O. F. Townsend, surveyor; L. N. Moller, county physician.



CHAPTER XIV.

PUBLIC INSTITUTIONS—GENERAL VIEW OF CIVILIZATION IN ARIZONA—THE ORIGIN AND MANAGEMENT OF THE TERRITORIAL PRISON—ITS PRESENT STATUS—AMAZING EXTENT OF THE LIQUOR TRAFFIC—PRIVATE AND SPANISH LAND CLAIMS—OLD STAGE LINES—THE GREAT RAILWAYS—THE LEADING FRATERNAL ORGANIZATIONS—RETRENCHMENT OF THE PUBLIC SERVICE—FINANCES—INDEBTEDNESS—LAND OFFICES—ASSESSMENT—TAXATION—SUNDRY APPROPRIATIONS—POPULATION—TERRITORIAL INSANE ASYLUM—THE CAPITOL SITE—CONVENTION IN THE INTERESTS OF STATEHOOD—THE SILVER QUESTION—POLITICS AND ELECTIONS—GRAND LODGE OF GOOD TEMPLARS—RELIGIOUS INSTITUTIONS—TERRITORIAL PRESS AND PRESS ASSOCIATIONS—THE JUDICIARY.

The Territory of Arizona is already noted for its observance of morality and law, and for the remarkable progress made in recent years in material prosperity. Its citizens have come from all quarters of the globe, bringing with them the best intelligence which their several nations could exhibit. As a result in no part of the earth are there found people more daring, enterprising, enduring, moral or intelligent. This fact was early manifested by the establishment of superior courts, schools, churches and industries. One of the first things the pioneers did was to find out in detail the resources of the Territory. It was thoroughly examined, its wonderful scenery admired, its marvelous mines located, its soil and grasses studied, its water supply measured, its climate considered, and its possibilities forecast. The result is now a great commonwealth, ready for statehood. Several of its public institutions merit special sketches.

The Territorial prison was projected in 1877, is situated at Yuma, and since its first reception of criminals, it has been a source of grievous expense to the Territory. Superintendent Gates recently reported that the statistics of the institution since the start have shown that three-fourths of the inmates are confined as the result of drunkenness, and as the expense per capita

is very high, an avoidance of this useless burden is eagerly sought. The institution was established late in 1877, and the first bonds—\$15,000 worth—were issued May 1, 1879, and the second issue to the same amount—\$15,000—took place March 1, 1880. Long before this, however, Congress passed, on January 22, 1867, an act which provided that the net internal revenue collected in the Territory during the fiscal years ending June 30, 1867, 1868 and 1869, should be applied to the erection of a Territorial penitentiary, the amount so appropriated not to exceed \$40,000. Gov. Hughes noted in 1893 that not one dollar had thus been applied, notwithstanding the appropriation, and notwithstanding that the internal revenue had been promptly and regularly collected. As a matter of history the prison has cost the Territory as much as all the other public institutions combined. To a large extent this is due to the fact that no well-directed effort has been made to make convict labor help sustain the burden of expense. In 1893-94 Congress, upon the recommendation of the Territorial governor, passed an act appropriating and setting apart 2,500 acres adjoining the prison, for a farm upon which convicts could be required to work. Considerable work has already been done upon the farm, and in the end it is hoped that the convicts



J. M. SWETNAM.

will be enabled to sustain themselves. From time to time additions have been made to the buildings, until now the institution, in size at least, is a credit to Arizona.

The average cost per capita per day for maintaining the prison was:

	Cents.
For the year ended June 30, 1892.....	96.5
For the year ended June 30, 1893.....	93.95
For the year ended June 30, 1894.....	88.
For the year ended June 30, 1895.....	72.

It will be observed there has been a constant decrease in the cost of this institution, although there has been an increase of inmates. There was a reduction of \$10,754.60 in the gross expenditures for the years 1894 and 1895, as compared with 1892 and 1893. This, with the amount received from the United States for the maintenance of Indian prisoners at this institution—\$16,886.93 (which by act of the Legislature has been placed to the credit of the prison)—makes a total gain to the institution for the past year of \$27,641.53. The improvements made on the prison buildings and farm, estimating the value of the labor employed at prevailing rates of wages paid for labor, amount to \$8,000.

Of the prison farm 80 acres have been cleared, fenced, and put under cultivation, which will in the future produce an abundance of vegetables for the prison and a surplus for the markets. It is the purpose as rapidly as possible to put 2,000 acres under cultivation, from which will be furnished all the beef and pork, as well as vegetables for the inmates of the prison; and, as the farm is located in an almost frostless belt, vegetables of all kinds, which will be sold in the Eastern markets, can be successfully raised during every month of the winter season. This proposition is plain and practicable, and, with a large number of the inmates of the prison constantly employed, it is confidently believed it will result in making the institution more than self-sustaining, and the tilling of the soil will do much toward making better men of the unfortunate convicts and in preparing them for their liberty and restoration to society. During the year 1894-95 there were received 192 prisoners, and 154 were discharged.

One of the most salutary laws passed by the last Legislature was the parole law, which con-

fers upon the governor the power to parole inmates of the Territorial prison, the governor to fix conditions of the parole. Under this law several convicts are outside of the prison walls. Among other rules or terms of parole established are that the paroled shall abstain from the use of all intoxicating drinks, shall render service to the Territory at some of its public institutions equivalent to the cost of his maintenance in the prison; value of the labor, if any, performed by them within the prison walls to be deducted. Thus the Territory is reimbursed in part for the cost of maintaining its inmates. Should the paroled be serving sentence for larceny, then he must, in addition to reimbursing the Territory, first reimburse the party wronged in the value of the property taken, if within the range of his ability to do so. The violation of any of the terms of his parole subjects him to re-arrest and return to the prison the same as if he were an escaped prisoner. Thus far the system is giving the most satisfactory results.

From the report of C. M. Shannon, internal revenue collector of the district of Arizona and New Mexico, it appears that there are in Arizona Territory 635 saloons, 7 wholesale liquor houses, and 18 wholesale and retail malt dealers, which paid a revenue of \$16,294.62 to the United States for the year 1894-95. This statement shows a reduction during the last twelve months of 37 saloons, and 3 wholesale liquor houses. It also appears from the financial statement of the Territorial treasurer that the Territory has not had to face a deficit of from \$30,000 to \$50,000, as in the years previous to 1894, but its expenditure has been less than its income to the amount of \$50,485.79, in which amount the public debt has been decreased. This is significant, and furnishes food for reflection.

The average number of inmates of the Territorial insane asylum for the year is 106, and the average number of the inmates of the Territorial prison was 180. Superintendent Gates, of the prison, states that "the statistics of the prison show that fully three-fourths of the inmates are confined as the result of intemperance." More than one-half of the inmates of the insane asylum are the victims of strong drink. Hence it appears that 75 per cent. of the cost of the Territorial prison and 50 per cent. of the cost of the insane asylum comes from strong drink. The

cost of maintaining these two institutions is the largest part of the Territorial expense. A conservative estimate shows that over 60 per cent. of the cost of maintaining the government of each county in the Territory comes directly or indirectly from the liquor traffic. A large number of the criminal cases in the United States courts of the Territory are from the selling of liquor to Indians, which is a great source of expense to the Federal Government. E. E. Ellingwood, United States district attorney for Arizona, says: "There were terminated during the fiscal year 1895, 95 criminal cases. Of these 30 were old cases dismissed, and of those tried there were 53 convictions and 12 acquittals. July 1 there were pending 38 cases, new and old, most of the cases being for the selling of liquor to Indians and smuggling."

The cost of the United States criminal courts in this Territory arises principally from the selling of whisky to Indians and smuggling in mes-cal, a Mexican intoxicating drink. Hence it appears that the cost of Territorial and Federal courts arises principally from strong drink, and in the latter in its sale to Indians. Their war spirit is subdued, but whisky will revive it or sink them to the lowest depth of vagabondage, and this at a great cost to the Territory and the Federal Government. A large majority of the criminal cases of the United States courts in the Territory and the greater part of the expense to the Federal Government for maintaining the courts comes from the traffic in strong drink. While whisky was the direct cause of Indian wars in the past in this Territory, now, with the Indians subdued, it is the most threatening menace to their civilization; and, when it is considered that there are 37,000 Indians in this Territory, the danger of the liquor traffic to both the Indians and the whites can be partially realized. How shall this great danger, this heavy burden, this ever-threatening evil be checked, curtailed, or removed? As long as Arizona remains a Territory, Congress must help or there will be no relief.

The Court of Private Land Claims, created by Congress to hear and determine title to land grants or private land claims originating, as alleged, from the Spanish Crown or the Mexican Government, has made most satisfactory progress. The names and areas of the grants situated

in Arizona and tried by the court from the time of its organization up to July 1, 1895, are as follows:

	Acres.
Los Nogales de Elias.....	32,763.00
San Jose de Sonoita.....	12,147.00
Babacomari.....	128,000.00
San Rafael del Valle.....	20,034.62
El Soporí.....	141,721.60
Tumacacori, Calabazas, and Huebabi.....	73,246.70
La Canoa.....	46,696.20
San Bernardino.....	13,746.00
Peralta.....	12,467,456.00
Aribac.....	20,400.00
Algodones.....	22,000.00

Making a total acreage of.... 12,978,211.71

The Algodones grant was confirmed; the Nogales de Elias, San Jose de Sonoita, Babacomari, San Rafael del Valle, Tumacacori, Calabazas, Huebabi, and Peralta grants were rejected, and the Saporí, Canoa, San Bernardino, and Aribac grants have been taken under advisement. Of the total area of the Peralta grant, about 2,000,000 acres are situated in the Territory of New Mexico. There still remains to be tried in Arizona the San Rafael de Zanja, Tres Alamos, San Juan de las Boquillas y Nogales, Agua Prieta, Buena Vista, and Reyes Pacheco grants.

The court will convene at Tucson on November 11, 1895, at which time the cases held under advisement will be heard and the remaining cases in Arizona disposed of. No doubt all of these cases will have to be finally determined by the United States Supreme Court, several of them now being before it for final adjudication. The final settlement of the title of these large areas of land is of vital importance to contesting claimants, the Territory, and those seeking homes in our midst, and until a final adjudication is had little or no progress will be made in the reclamation and development of these lands.

The old stagecoaches of the West will ever be famed in song and story for the romance of wild and thrilling interest surrounding them. They were perfect in their way, both for mail and passenger service, and extended across Arizona in all directions, and, of course, do to this day, notwithstanding the encroachments of the railroads. But now they are tame affairs, when compared with those which ran armed to the teeth through

the most dangerous portions of the hostile Indian country. Then a skirmish with desperate Indian bands was an every-day occurrence, and occasionally the whole party was overpowered and put to death; or perhaps the coach would be "held up" by a few determined outlaws or desperadoes, the guards and horses shot, the mail and express ransacked, and the passengers robbed of all their valuables, after being compelled to stand in a line, with their hands above their heads, at the muzzles of a few deadly rifles in the hands of villainous looking men, at whose word or pleasure the life of any person was not worth a moment's purchase. The days of the Indians are about over for such deviltry, but the desperado for years to come will be heard from.

The Southern Pacific Railroad was built across Southern Arizona in 1878, and the Atlantic and Pacific across the northern part in 1883. These two opened the way for all the branch lines that have since been built. Many others have been projected into all the wonderful valleys of the Territory, to its rich mines, to its vast forest areas, and to its great coal fields. It will be but a short time until the entire Territory will be opened up to quick communication with outside districts.

There are now (June, 1895) ten railroads in the Territory (of which nine are being operated), as follows:

	Mileage.
Southern Pacific of Arizona.....	383
Atlantic and Pacific of Arizona.....	393
New Mexico and Arizona.....	87
Arizona and New Mexico.....	56
Arizona and Southeastern (being extended)..	56
Santa Fé, Prescott and Phoenix (being extended)	197
United Verde and Pacific.....	27
Gila Valley, Globe and Northern (being extended)	62
Maricopa and Phoenix	34
Prescott and Arizona Central (not being operated)	73
 Total mileage	 1,256

The Southern Pacific passes through the southern part of the Territory, from Yuma, on the Colorado River, to the eastern boundary of Cochise County, passing through the counties of Yuma, Maricopa, Pinal, Pima and Cochise.

The Atlantic and Pacific crosses north of the center of the Territory, near the 35th parallel,

and passes through the counties of Apache, Yavapai, Coconino and Mohave.

The New Mexico and Arizona runs from Benson, on the Southern Pacific, in Cochise County, to Nogales, in Pima County, on the Mexican line.

The Prescott and Arizona Central runs from Prescott Junction, on the Atlantic and Pacific, to Prescott, and is all in Yavapai County. This road is not being operated, its business having been absorbed by the Santa Fé, Prescott and Phoenix Railroad.

The Maricopa and Phoenix runs from Maricopa, Pinal County, on the Southern Pacific Railroad, to Phoenix, Maricopa County. A branch of this road is now being constructed from Tempe to Mesa City, a distance of seven miles.

The Arizona and Southeastern runs from Bisbee to Benson, where it connects with the Southern Pacific. Eighteen miles of this road were built during the year. The road is operated by the Copper Queen Company, which supplies a large amount of its traffic.

The United Verde and Pacific runs from Clear Springs, on the line of the Santa Fé, Prescott and Phoenix, to Jerome, and was built to handle the mineral product of the district, especially the copper of the Jerome mines.

The Gila Valley, Globe and Northern is being operated from Bowie Station, on the line of the Southern Pacific Railroad, to Thomas, Graham County, and is being extended to Globe, the mining center of Gila County. It is 62 miles in length; 45 miles were constructed during the year, and when completed it will be 140 miles in length. Construction is at a standstill, awaiting the right of way through the San Carlos Indian Reservation, which should be speedily granted, as it will result in the opening of one of the richest mineral regions in the Territory, and will do much to reduce the cost of furnishing supplies for the Indians on the White Mountain Reservation, as well as furnishing a rapid means of transporting troops if the occasion should arise.

As long ago as 1879, mapmakers of Arizona were showing a contemplated line of railroad from Phoenix to Prescott, and prominent citizens were planning a railway through the mountains, following the Hasyampa River through its cañons and valleys to a point opposite the famous "Vulture Mine," then across the valley to Phoenix. About

this time the construction of the Atlantic and Pacific Railroad across the northern part of the Territory, and the Southern Pacific through the Southern portion, was absorbing almost the entire attention of capital, so far as railroad building in Arizona was concerned, and the idea of a north and south road slumbered.

In the year 1884, Gov. F. A. Tritle, associated with others, was induced to undertake the building of a road from the Atlantic and Pacific Railroad to Prescott, but the plans failed. Later, citizens of Prescott and Yavapai County gave a large subsidy to aid in the construction of this road from the Atlantic and Pacific to Prescott, contemplating carrying it still further into the mining camps and agricultural regions of the south, via Phoenix, to a connection with the Southern Pacific road.

The line to Prescott was completed, but the owners and those controlling the enterprise refused to carry out the wishes of the people, by extending the line as intended, being content with the large returns they were receiving from the road already built, and not caring to undertake the large expense necessary in building the heavy mountain road that was necessary before the valleys could be reached.

During the year 1887, Joseph Reynolds (better known as "Diamond Joe") purchased the now famous mine known as the "Congress," and immediately commenced its development. Mr. Reynolds' attention having been thus attracted to the Territory, he was quick to take in the situation, and recognized at once the importance of building a north and south road through the Territory, which would prove of great advantage to his mining interests, as well as be the means of opening up a large and valuable section of country rich in all kinds of minerals, as well as in agricultural lands. The valley of the Salt River was attracting a great deal of attention, and it was clear to Mr. Reynolds that a road connecting the agricultural and mining interests of the Territory, furnishing an outlet by the Atlantic and Pacific Road and Santa Fé system to the east, would prove exceptionally profitable when constructed, and he proceeded immediately, in conjunction with many of the leading citizens of the Territory, to provide the much needed railway facilities.

Mr. D. B. Robinson, at that time general manager of the Atlantic and Pacific road, recogniz-

ing the importance to his company and the Santa Fé System generally of having a feeder built into the rich agricultural valleys and mining districts of Arizona, urged upon his friends the advisability of assisting Mr. Reynolds in every way possible in his efforts to construct the road. His experience in the southwest was of such a character as to enable him to thoroughly appreciate the advantages of controlling the traffic of this rich territory, and he consented to join Mr. Reynolds in making a reconnaissance of the country, for the purpose of better satisfying himself as to the feasibility of the route proposed, as well as to be sure beyond question as to the traffic that could be reasonably relied upon to justify the investment.

Mr. Robinson's experience entitled him to speak positively as to the merits of the enterprise, and he unhesitatingly recommended Mr. Reynolds to undertake the great work.

The citizens of Phoenix, Maricopa County, and of the Territory generally, were anxious and ready to assist Mr. Reynolds in every way possible. The taxpayers of Maricopa County universally petitioned Congress for authority to issue bonds (to be exchanged for stock in the railway company), and an act was consequently passed, granting the prayer of the petitioners, but for reasons known only to himself, President Harrison saw fit to deprive the citizens of Arizona of the benefits and advantages they were seeking to derive, by vetoing the act above referred to, whereupon the Territorial Legislature, then in session, immediately passed an act to encourage the construction of railroads in the Territory by exempting them from taxation for a term of years under certain conditions and restrictions.

The citizens of the Territory were universally alive to the importance of encouraging the construction of this north and south road, consequently the act of the Legislature received hearty and general indorsement.

The owners of the road that had been constructed to Prescott could not be induced to extend their line, nor would they sell to Mr. Reynolds, who was ready and willing to commence the construction of the road from Prescott to Phoenix, providing any reasonable understanding could be reached whereby the owners of the Prescott road would co-operate with him.

While negotiations were pending Mr. Rey-

nolds died, and it looked for a time as though the Territory was to be deprived of the much needed railway facilities that had seemed, just prior to Mr. Reynolds' death, insured to them, but when the facts and figures that had been gathered by Mr. Reynolds were presented to Mr. E. M. Dickey and Mr. G. W. Kretzinger (who represented the estate of Mr. Reynolds), they decided to take up the work where he had left off, and together with the support that was ready in all parts of the Territory—Phoenix and Prescott in particular—see what could be done toward carrying out Mr. Reynolds' plans.

Mr. D. B. Robinson was found ready to accept the presidency of the company that was to be formed for the purpose of building the road, which fact within itself practically guaranteed the success of the enterprise; consequently, in the month of May, 1891, the Santa Fé, Prescott and Phoenix Railway Company was organized.

On June 9, 1891, the Santa Fé, Prescott and Phoenix Railway Company was duly incorporated, by the following incorporators:

Congress Gold Mining Company, Ernest M. Dickey, Frank M. Murphy, George W. Kretzinger, D. B. Robinson, William J. Murphy, N. O. Murphy, C. F. Karns, William G. Lyman, W. A. Bissell.

Negotiations were again taken up with the owners of the Prescott road, but for reasons that could never be understood by Mr. Robinson and the directory of the S. F., P. & P., nothing could be accomplished with the owners or bondholders—they would neither sell, nor build; consequently, the construction of the S. F., P. & P. was commenced, Mr. Robinson entering into a contract with Messrs. B. Lantry & Sons to do the grading.

Work was commenced at a point on the line of the Atlantic and Pacific Railroad, known as Ash Fork, the present junction, and completed to Prescott, sixty miles, under and by virtue of the act of the Legislature here referred to, and opened for operation to that point on the 21st April, 1893.

The completion of this road meant the death of what was known as "The Prescott and Arizona Central," heretofore called the "Prescott Road," and to-day nothing is left to show that such a road ever existed.

In May, 1893, Mr. Robinson having been called

to the responsible position of first vice-president of the Atchinson, Topeka and Santa Fé Railroad, found it necessary to resign the position of president of the Santa Fé, Prescott and Phoenix Railway, and Mr. F. M. Murphy was elected to fill the vacancy.

The cost of construction of the road was very heavy, owing to the mountainous country that had to be traversed, and it was only under the greatest difficulties that work was continued during the panicky times of 1892 and 1893, but through the persistent efforts of all concerned, the road was finally opened for business to Phoenix from Ash Fork, on March 11, 1895. Too much cannot be said in commendation of those having this great work in hand, including the contractors, who succeeded in carrying it to completion; this in the face of the fact that all similar work elsewhere in the United States was obliged to stop. Nearly all corporation work of whatsoever nature was waiting, but the S. F., P. & P. railroad construction went steadily on to completion, and is to-day one of the best railroads in the West, and is thoroughly equipped. It was, however, found necessary for the original promoters of the enterprise (owing to the inability of the representatives of the Reynolds' estate to carry through the work and complete the road as had been originally contemplated) to unload the principal responsibility of providing means onto the shoulders of Messrs. D. M. Ferry, N. K. Fairbank, S. J. Murphy, C. C. Bowen, and C. D. Arms—the Reynolds estate, however, still retaining a very large interest in the road, which interest has since been assumed by Mr. Jay Morton, who is at the present time a director in the company.

Already the improvement in the Territory, as a result of the building of this road, is manifest on every hand by the opening of hundreds of new mines, and universal prosperity in the Territory has been established. The movement of lumber, cattle and coal, from the mountains to the valley, and the movement of the Salt River Valley products to the northern districts of the Territory, as well as shipments of fruits of all kinds from the agricultural regions of the valley to the outside markets, St. Louis, Chicago, New York, and the markets of the world generally (and it is not uncommon to see early fruits from the Salt River Valley on sale in the California

markets), made possible by the building of this road. The S. F., P. & P. has been the means of stimulating all kinds of enterprise and furnishing employment to thousands, and it might be well to say in conclusion, that the investment is proving a profitable one, and in the near future it may be expected that the road will be extended and numerous branches constructed, which will give to Arizona as good railroad facilities as any other portion of the United States, especially so in comparison with the Western States.

It is but appropriate to add that the citizens of the Territory have from the beginning rallied around this enterprise with their patronage and support, and they look upon the Santa Fé, Prescott and Phoenix Railway (associated as it is with the Atlantic and Pacific and Santa Fé System), as their friend and co-worker in the development of the unlimited resources in this great Territory.

Much credit is due Maj. G. W. Vaughn, who was first chief engineer, and afterward vice-president and general manager during the construction of the road, who materially assisted in keeping the work going during the panic of 1892 and 1893, and to him is largely due the credit of the substantial character of the roadbed and structures of every kind. Maj. Vaughn's wide experience brought about him such men as W. A. Drake (probably one of the best railroad engineers—if not the best—in this country), and also caused him to select Mr. R. R. Coleman to supervise and take in charge the track work of the road. Mr. Coleman has probably had quite as extensive an experience in track laying as any other man in the United States. To-day it can safely be said that there is not a road in the West more substantially built than is the S. F., P. & P. No one who has an opportunity to visit the Pacific slope should miss the opportunity of visiting the Salt River Valley and enjoying the beautiful scenery to be found along this line.

The directory of the company to-day remains practically the same as when the road was under construction; some few changes have been made, however, and to-day we find the directors and officers of the company are as follows:

Directors: N. K. Fairbank, Chicago, Ill.; D. M. Ferry, Detroit, Mich.; C. C. Bowen, Detroit, Mich.; Simon J. Murphy, Detroit, Mich.; F. M. Murphy, Prescott, A. T.; Jay Morton, Chicago,

Ill.; R. McCurdy, Youngstown, Ohio; G. W. Kretzinger, Chicago, Ill., and W. C. Bashford, Prescott, Arizona.

Officers: F. M. Murphy, president and general manager; D. M. Ferry, vice-president; R. E. Wells, assistant general manager; G. W. Kretzinger, general counsel; C. C. Bowen, secretary and treasurer; Francis J. Sarmiento, auditor and assistant secretary and treasurer; George M. Sargent, general freight and passenger agent; W. A. Drake, chief engineer; O. H. Jackson, master mechanic; J. J. Wragovich, assistant auditor; A. W. Edwards, cashier; D. R. Gillis, trainmaster.

The leading fraternal societies are well represented in the Territory. Their strength and rapid growth attest the good feeling which obtains among the people. These societies are strong factors in promoting law and order. Their beneficiary features excite a strong spirit of mutual dependence among their members, and in all things strengthen and make better the communities in which they exist. This is especially noticeable in Arizona. The following is condensed from an address delivered at Prescott June 24, 1891, by Hon. Morris Goldwater, of that city, upon the twenty-fifth anniversary of the Masonic order in Arizona:

Alexander G. Abell, Very Worshipful Grand Secretary of the Grand Lodge, of California, for years, did much to promote the order in Arizona. Hon. John Howard was largely instrumental in helping to organize the first lodge in Prescott. The first recorded minutes of a meeting are without date. This, however, was in the year 1864, the secretary being Lieut. Charles Curtis, of the United States Army. This meeting was held at the house of John N. Goodwin, then governor of the Territory, Mr. Goodwin being the presiding officer. It was resolved to apply to the Grand Lodge, of California, for dispensation to open a lodge at Prescott. The name selected was Aztlan. John T. Alsop was chosen worshipful master; Joseph Ehle, senior warden, and H. Brooks, junior warden. The petition was signed by nine master masons, most of whom have been called to the Temple above. As it was necessary to have a recommendation from the nearest lodge, Joseph Lennon was selected to carry the petition to Santa Fé. At the next meeting, which is also without date, three

hundred dollars was subscribed for the purpose of procuring and furnishing a hall. Upon the return of Joseph Lennon, from Santa Fé, John N. Goodwin was chosen to present the petition to the grand master, of California. This was done April 23, 1865, and the petition was granted. Owing to the inability of Mr. Ehle to secure a demit from his lodge, H. Brooks was named senior warden and Herbert Bowers, junior warden. The first to apply for degrees was Lieut. Samuel L. Barr, a Fellowcraft Mason. The first named as affiliating members were N. L. Griffin, A. W. Adams and Ned Pierce. September 30, 1865, the first regular work was done, A. C. Noyes and J. G. Mitchell receiving the E. A. degree, and Lieut. Barr being raised to master. The first lodge funeral occurred January 2, 1866, Stephen Lea, of Oregon, being the deceased. In August, 1866, the last meeting under dispensation was held. The debts of the lodge were all paid; the books, papers and dispensation were forwarded to California by Lieut. Barr, and by

COMPARATIVE STATEMENT OF ASSESSED VALUES OF TAXABLE PROPERTY FOR 1894 AND 1895.

	1894.	1895.
Land.....	\$5,829,248.68	\$5,220,191.09
Improvements thereon...	1,603,257.50	1,345,571.97
City and town lots.....	3,003,445.50	3,481,263.16
Improvements thereon....	2,966,404.50	3,401,533.85
Cattle.....	3,064,221.90	3,449,439.35
Sheep.....	538,990.71	515,270.55
Horses.....	970,242.35	830,452.50
Mules.....	43,459.00	31,152.50
Asses.....	12,642.00	12,019.50
Goats.....	4,226.00	8,215.50
Swine.....	18,282.21	24,083.00
Railroads.....	5,651,053.62	5,169,306.59
All other property.....	3,913,022.99	4,029,822.49

vote the Grand Lodge was asked to change the name of the lodge from Aztlan to Arizona Lodge and to grant them a charter. January 21, 1867, the charter arrived, but the name of the lodge remained Aztlan, and was numbered 177. This charter was brought from San Francisco to La Paz by Charles B. Genung, and from La Paz to Prescott by Joseph R. Walker.

The following are the societies in the Territory which show an increased membership during the year 1895:

Masonic.—Grand lodge, 11 subordinate lodges; total membership, 513. Grand Chapter Royal Arch Masons, 4 subordinate chapters; total membership, 187. Grand Commandery Knights Templar, 3 subordinate commanderies; total mem-

bership, 116. Scottish Rite, Santa Rita Lodge of Perfection, No. 1, with a membership of 35.

Knights of Pythias.—Grand lodge, 12 subordinate lodges; membership 637, an increase of 82 during the year.

STATEMENT OF THE BONDED AND FLOATING DEBT OF THE TERRITORY JUNE 30, 1895.

Title of Bonds.	Date.	Time.	Rate.	Amount.
		Yrs.	Per ct.	
Yuma and Ehrenberg Wagon Road.....	Mar. 14, 1881	15	10	\$10,000.00
Insane Asylum.....	July 1, 1885	2	7	100,000.00
Wagon Road and Bridge.....	Nov. 1, 1885	15	8	12,000.00
Gila Bridge.....	May 15, 1885	15	8	15,000.00
Arizona University..	Jan. 1, 1887	20	7	25,000.00
Funding.....	Jan. 15, 1888	25	6	150,000.00
World's Fair.....	July 1, 1892	20	5	30,000.00
Funding.....	July 15, 1892	50	5	1,720,000.00
Total.....				2,062,000.00
Floating Debt (warrant).....				252,367.16
Total.....				2,314,367.16
Deduct county and city funded debt of the Territory.....				1,389,899.57
Aggregate Territorial indebtedness.....				924,467.59
Less cash on hand.....				100,328.35
Net debt of the Territory.....				824,139.24

The net Territorial debt at the close of the fiscal year ended June 30, 1894, as per my last annual report, was \$874,624.03
The present net debt, as appears from above, is 824,139.24

Showing not only a retrenchment of expenses for the year but a decrease of the Territorial debt of..... 50,485.79

BANKS AND LOAN ASSOCIATIONS.

There are eight banking institutions doing business under the laws of the Territory, with a total capital of.....\$227,515
Surplus and undivided profits..... 118,490
Five building and loan associations (only three reported), with a capital of..... 159,341
Surplus and undivided profits..... 59,009
Five national banks, with a capital of..... 400,000
Surplus and undivided profits..... 129,545

Total capital and surplus..... 1,093,900
During the year one bank went out of business, the depositors being paid in full.

Odd Fellows.—Grand lodge, 15 subordinate lodges; total membership, 639.

Ancient Order United Workmen.—Grand lodge, 14 subordinate lodges; total membership, 1,000.

Grand Army of the Republic Posts.—Total membership, 332.

Independent Order of Good Templars.—Grand lodge, 22 subordinate lodges; total membership, 950.

Railway Employes Societies.—Brotherhood of Locomotive Engineers, total membership, 209; Brotherhood of Locomotive Firemen, total membership, estimated, 210; Order of Railway Conductors, 80; Brotherhood of Railway Trainmen, 235; Order Railway Mechanics, 56.

The Women's Christian Temperance Union is organized in all of the principal settlements.

year 1891 the Territory was called to face a deficit of \$42,924.16; in 1892 a deficit of \$51,355.73; in 1893 a deficit of \$34,282.02. At the close of the fiscal year 1894 there was a surplus in the treasury of \$5,832.38, and at the close of the present fiscal year its indebtedness has been decreased \$50,485.79, by far the best exhibit made during the last fifteen years, which, in place of a deficit, is a reduction of the public debt.

Arizona's financial condition is most satisfactory. Her standing with the financiers of the

ASSESSED VALUATION, EACH YEAR, OF THE COUNTIES OF ARIZONA, FROM 1883 TO 1894, INCLUSIVE.

Counties.	1883.	1884.	1885.	1886.	1887.	1888.
Apache.....	\$1,663,761.00	\$1,083,870.00	\$1,422,450.00	\$2,854,990.94	\$2,601,905.28	\$2,569,271.80
Cochise.....	14,722,823.97	11,856,491.86	10,659,646.35	3,050,882.72	3,392,665.19	2,880,012.85
Gila.....	1,115,495.68	780,752.70	691,685.00	629,678.50	661,984.29	627,333.00
Graham.....	575,767.00	1,159,518.09	1,139,267.44	1,242,888.10	2,088,483.73	1,588,090.35
Maricopa.....	1,934,501.00	2,077,980.00	2,266,772.00	2,342,310.00	3,301,056.35	3,999,418.00
Mohave.....	1,951,529.00	1,756,753.00	1,854,079.00	1,040,780.87	1,688,656.00	2,238,078.77
Pima.....	4,896,493.62	5,295,906.72	4,282,114.83	3,449,054.53	4,670,784.39	3,813,009.54
Pinal.....	1,909,852.72	1,721,583.99	1,693,771.85	1,044,087.44	1,842,465.23	1,814,332.00
Yavapai.....	6,430,329.82	3,686,077.75	3,906,980.17	6,250,853.65	5,225,648.45	5,619,555.22
Yuma.....	806,306.20	808,831.95	765,845.80	702,391.80	779,757.20	763,913.79
Total.....	36,006,860.01	30,227,765.97	28,682,612.44	23,206,918.65	26,193,506.11	25,913,015.23
Counties.	1889.	1890.	1891.	1892.	1893.	1894.
Apache.....	(*)	\$3,710,554.43	\$2,634,288.14	\$2,220,262.58	\$1,087,048.32	\$1,934,308.40
Cochise.....	\$3,313,316.48	2,981,719.89	2,981,769.32	2,840,819.12	2,515,607.23	2,350,037.79
Coconino.....			1,975,975.98	2,190,762.74	2,314,385.69	2,002,345.26
Gila.....	1,061,263.50	1,183,472.10	1,309,233.20	1,110,036.08	1,023,874.58	887,824.40
Graham.....	1,557,076.66	1,486,169.99	1,687,797.94	1,654,408.32	1,892,002.60	1,612,972.17
Maricopa.....	4,844,801.00	5,583,214.30	5,709,864.74	6,238,325.13	7,502,156.53	8,165,584.30
Mohave.....	3,211,084.25	1,185,537.80	1,147,580.07	1,070,380.45	1,105,005.79	1,014,858.95
Pima.....	3,840,268.23	3,845,399.50	4,081,279.85	3,994,718.54	3,968,508.10	3,391,714.46
Pinal.....	1,851,450.58	1,903,401.53	1,967,974.54	1,731,630.56	1,741,967.08	1,422,566.35
Yavapai.....	6,602,885.29	5,319,426.63	4,034,137.99	3,814,684.66	3,513,840.08	3,105,476.45
Yuma.....	775,314.16	851,338.50	749,564.51	1,057,134.37	1,020,787.00	1,173,289.43
Total.....	27,057,467.15	28,050,234.73	28,279,466.28	27,923,162.55	28,486,183.00	27,061,974.96

* No returns.

There has been most satisfactory progress made on the lines of retrenchment in the public service, both Territorial and county.

The penitentiary and the insane asylum have not only been much improved, but the cost of maintenance has been reduced. During the last two years the cost of the asylum, with nearly one-third more inmates, was \$10,890 less than the two years previous.

The Territorial prison, with a larger average attendance during the two years, was maintained at \$10,764 less than the two years 1892 and 1893, and improvements valued at \$8,000 were added to the prison building by prison labor.

The progress on the lines of economy can be better appreciated when it is shown that for the

country is evidenced by the fact that a recent negotiation of all her outstanding floating indebtedness, to be funded in 5 per cent. 20-50 year bonds, has been contracted for at a higher premium than has ever been paid for Territorial securities. The funding of the Territorial floating debt under the Congressional enactment will place the Territory on a cash basis, and on and after January 1, 1896, no warrants or other evidences of indebtedness will be issued to meet current expenses of the Territory. This creditable showing is no doubt due to the fact of the retrenchments in the public service, the prompt payment of interest, and redemption of obligations of the Territory. The following statement of the Territorial treasurer shows Arizona's financial condi-

tion. While the Territory assumes the payment of all the above debt, the counties and cities pay the interest on their portion of the debt, and the last figures show the actual amount of the debt incurred for Territorial purposes.

Arizona comprises two land districts, the Gila and Prescott. The United States land office of the Gila land district is located in Tucson; the area of this district comprises 45,318 square miles, or nearly 30,000,000 acres. The Prescott land district comprises the northern part of the Terri-

teenth Legislature for the purposes of a Territorial exhibit at the World's Columbian Exposition was duly confirmed by Congress. The bonds of the Territory covering the amount were sold at a premium, and the Board of World's Fair Managers of the Territory actively engaged in the collection and preparation of articles and subjects for exhibition. The Territory made an excellent showing at Chicago.

Several years ago a very wise act of the Legislature provided for the establishment of a Terri-

THE FOLLOWING STATEMENT SHOWS THE CLASS AND VALUE OF TAXABLE PROPERTY FOR THE FISCAL YEAR ENDED JUNE 30, 1895, FURNISHED BY THE TERRITORIAL BOARD OF EQUALIZATION, THE AGGREGATE VALUE BEING \$27,518,332.49 AS AGAINST \$27,061,974.96 FOR 1894, BEING AN INCREASE OF \$456,347.53.

Counties.	Land acreage.	Value of land.	Value of improvements.	Value of city and town lots.	Value of improvements.
Apache.....	822,219.64	\$230,889.81	\$ 35,636.10	\$ 13,619.50	\$ 36,779.00
Cochise.....	22,700	64,088.25	17,920.00	93.982.50	407,248.75
Coconino.....	597,547.19	229,260.04	78,387.00	132,602.49	185,890.00
Gila.....	5,356	99,700.00	85,666.00	29,156.00	70,156.00
Graham.....	30,447.78	352,365.04	294,651.85	28,748.50	105,610.10
Maricopa.....	232,133	2,604,525.00	260,170.00	2,309,098.00	808,880.00
Mohave.....	533,231	123,434.53	74,450.00	10,266.00	55,949.00
Navajo.....	1,035,737.59	263,379.50	16,880.00	69,967.50	115,808.00
Pima.....	55,725	207,971.00	119,258.00	337,389.00	974,389.00
Pinal.....	47,174.89	376,275.50	174,048.00	57,881.00	72,663.00
Yavapai.....	340,828	361,830.00	149,990.00	309,641.00	507,717.00
Yuma.....	78,982	306,473.30	35,515.00	88,911.67	60,444.00
Total.....	3,862,282.09	5,220,191.97	1,345,571.95	3,481,263.16	3,401,533.85

Counties.	Miles of railroad.	Value of railroads.	All other property.	Total valuation county and Territory.
Apache.....	54.482	\$272,410.00	\$ 74,567.55	\$ 973,202.26
Cochise.....	175.670	862,980.00	394,258.89	2,253,704.89
Coconino.....	116.660	538,300.00	286,956.39	2,099,455.67
Gila.....			126,982.00	818,630.00
Graham.....	41	109,230.00	304,485.55	1,833,666.54
Maricopa.....	94.570	544,262.00	710,095.00	7,567,739.10
Mohave.....	108.076	540,380.00	164,204.87	1,231,099.90
Navajo.....	57.208	286,040.00	105,927.82	1,110,063.04
Pima.....	117.004	774,178.53	498,969.00	3,490,474.53
Pinal.....	79.790	477,966.17	159,148.00	1,540,764.67
Yavapai.....	60.552	265,602.89	1,117,166.00	3,494,437.89
Yuma.....	80	497,957.00	87,061.00	1,105,083.97
Total.....	985.012	5,169,306.59	4,029,822.49	27,518,322.49

tory, 68,000 square miles; the United States land office of this district is located in Prescott.

By an act of the eighteenth Legislature, in 1894-95, arrangements were made with the California Deaf, Dumb and Blind Institute for the care of those thus afflicted in this Territory, at the rate of \$300 each person per year.

In 1892-93 Congress appropriated the sum of \$10,000 to construct a levee on the south side of the Gila River to protect the town of Yuma from inundation in times of overflow.

The appropriation of \$30,000 made by the six-

terial and a Law Library, since which date there has been a steady accumulation of books.

In 1889 it was specially noted by Gov. Wolfley that there were four "stakes" of Mormons in the Territory—two in Apache County, one in Maricopa and one in Graham—and he recommended the repeal of the repealing act of disfranchisement of this people, who were known to be practicing polygamy.

In 1863, when the Territory was organized, the population, exclusive of Indians, was 581. In 1870 it had grown to 9,688; in 1880 to 40,440; in

1890 to 59,620, and now, in 1896, it is estimated at 75,000.

The Territorial Insane Asylum is located at Phoenix, and was founded by the Legislature in 1885, at which date the first bonds, to the amount of \$3,500, and bearing seven per cent. interest, were issued. They were then known as the Maricopa County Insane Asylum bonds. At first the care given the unfortunate insane was rude, but recently great improvements have been made, much needed repairs to the building being not the least in importance. Recently a specialist on this disorder has been placed in control of the asylum, and the result is manifest in better discipline and a greater percentage of assistance. A physician experienced in nervous diseases, who had for twelve years been constantly employed in an asylum for the insane, was appointed, and the result has been very encouraging. The most advanced, enlightened and modern treatment of the insane was introduced. All of the patients are now allowed the liberty of the grounds, which comprise 160 acres of orchard, farm, etc., part of each day. Many of these are given light work on the farm and about the premises, which has converted the institution into more of a home than an asylum, resulting in much more comfort to all and proving an important factor in reducing the cost of maintaining the institution, as will be seen from the following statement:

Amount expended for the maintenance of the asylum from June 1, 1891, to June 1, 1892.....	\$29,223 84	
Amount expended from June 1, 1892, to June 1, 1893.....	28,712.34	
Total expended for the biennial period...		<u>\$57,936.18</u>
Amount expended for the maintenance of the asylum from June 1, 1893, to June 1, 1894.....	25,649.54	
Amount expended from June 1, 1894, to June 1, 1895.....	25,355.14	
Total expended for the biennial period..		51,004.68
Deduct amount expended for permanent improvements during biennial period ending June 30, 1895.....		<u>3,965.30</u>
Making the running expense of the asylum for the biennial period, less amount expended for improvements.....		47,039.38
Saving over the preceding biennial period....		<u>10,896.80</u>

The daily inmates for the biennial period ending May 31, 1893, was 74, and for the period ending May 31, 1895, 106; an increase of 32. Notwithstanding this increase in the number of inmates, a saving of \$10,896.80 was effected,

which, added to the improved service and the comfort of the insane, is certainly most gratifying.

In 1889 Gov. Lewis Wolfley said in his report: "The board of commissioners of the insane asylum called on me to countersign a warrant for asylum expenses. I refused to blindly sign, and requested them to furnish me with a detailed statement and vouchers supporting the warrant; this they refused and brought a mandamus suit. The Supreme Court of the Territory sustained my right, and since that time, June last, they have entirely neglected to do their duty or even attempt to, to the very great injury and the economical running of that institution."

The capitol site commissioners appointed pursuant to act of the fifteenth Legislature, consisted of S. M. Franklin, T. D. Hammond and C. W. Johnstone. In April, 1889, they advertised for a building site and received five propositions within the limits of the conditions imposed by the Legislature. After careful deliberation they decided to accept a donation of ten acres, offered by M. E. Collins and M. H. Sherman, situated one-quarter of a mile west of the city of Phoenix. The ground was duly prepared under the direction of a competent landscape gardener. Some trouble arose over the actions of this commission and another one, consisting of G. F. Coates, C. F. Ainsworth and T. D. Hammond, was appointed and qualified, Walter Talbot succeeding Mr. Coates. This commission found that the work done by the former one was correct and so reported. The grounds are being put in excellent condition, and soon thereon will be built the capitol building.

The first capital of the Territory was located at Prescott, and remained there from 1864 to 1867; thence it was removed to Tucson, and remained until 1877; thence it went back to Prescott, and remained until 1889, when it was permanently located at Phoenix.

A Territorial convention was held in 1891 for the purpose of framing a state constitution. The convention convened September 7, 1891, and adjourned October 3, 1891. The following is a list of the members: J. F. Wilson, W. A. Rowe, Yavapai County; H. N. Alexander, T. C. Jordan, M. H. Williams, Maricopa County; W. H. Barns, F. H. Hereford, W. A. Hartt, Pima County; M. A. Smith, Wm. Herring, G. W. Cheyney, Co-

chise County; J. W. Anderson, Thos. Davis, Pinal County; A. M. Patterson, B. M. Crawford, Graham County; Art McDonald, John Hunt, Apache County; Thomas Gates, Yuma County; Foster S. Dennis, Mohave County; T. G. Norris, Coconino County; Alonzo Bailey, Gila County.

The officers of the convention were as follows: W. A. Rowe, president; A. C. Bernard, secretary; J. O. Dunbar, assistant secretary; John Hughes, page; John McCassey, sergeant-at-arms; J. W. Kincaid, doorkeeper; May McElwain, clerk.

A constitution was framed and submitted to popular vote, under which the Territory was expected to be admitted into the Union. It was provided that no change could be made in the same inside of four years and was drawn with great care by men of high ability and pure statesmanship. The people of the Territory were bitterly divided over some of its provisions, but many who entertained such opinions voted for it in the hope of gaining, by such unanimity, the admission of the Territory into the Union as a State. Nearly all were willing to waive their objections to many of its provisions, if by such concord they could secure statehood. In fact, all efforts of the statesmen of the Territory were directed to this coveted end. This constitution declared, "That the gold and silver coin of the United States shall be equally legal tender for all debts and obligations contracted in this state, any contract to the contrary notwithstanding." This plank, particularly, as well as others tending in the same direction, was strenuously opposed by the single standard capitalists of the East, who favored the repeal of the Sherman Act in Congress, and the suspension of the (then) present coinage of silver on a basis of 16 to 1. They refused to consider the admission of Arizona under a constitution that permitted the payment of debts in silver coin, or otherwise, at the option of the debtor. Consequently the bill for the admission of Arizona to statehood was tabled. There were other objections. One section continued a state of affairs by which a railroad which cost \$25,000 per mile to construct, aside from rolling stock, buildings and machinery, was taxed for less than \$7,000 per mile, while cattle which would not bring \$5 per head were taxed at a minimum of \$7. Another provided that a municipality or county

must, upon a two-thirds vote of its electors, loan its credit to any private enterprise that asked for it. Yet a canvass of Pima County, for example, revealed that two-thirds of the number of its voters and sixty-five over, were not taxed for one dollar's worth of property.

Perhaps, however, the greatest objection was to the article which was entitled, "Water and Waste Rights." Section 4 of this article provided that individuals and corporations could appropriate the water for the purpose of selling it, regardless of the usual well-known doctrine that the title to the water was in the public, and thus forever dedicated to the whole people. Section 4 created absolute ownership of water rights in corporations, as it gave them authority to control and sell such privileges. Instead of forever vesting such rights in the people this constitution came forward and gave absolute ownership to the irrigating companies. It is easy to see how the corporations, with the sugar-coated bait of statehood, thrust this constitution down the throat of people who were well aware of its injustice and want of equity. There was nothing to prevent one of the corporations, out of revenge or otherwise, from shutting off the water from the fine ranch of a settler and ruining years of toil and privation. Early in the '90's these provisions in the constitution prevented the admission of Arizona, just as now (1896) the silver question holds it in a territorial condition.

While it is vital to the prosperity of Arizona and all the other silver producing States and Territories that one of their greatest and most valuable products—silver—should be remonetized and placed upon the markets of the world, it must be conceded that the free and unlimited coinage of this metal, upon the basis of 16 to 1, will not likely take place in the near future unless the free silver advocates succeed at the election of November, 1896. If this be true, then Arizona should work hard for three objects: 1. The adoption of the double standard by this and other nations. 2. The best possible market for its silver at present. 3. The success of a national party that can control Congress in the interests of free silver. The following declaration of instructions to its delegates in the National Republican Convention of 1896 represents almost the unanimous wish of the people of Arizona, irrespective of party; in fact, the silver question is more important to the

people of the Territory than any other, not excepting either statehood or irrigation:

"We declare that it is the unanimous demand of the people of Arizona that silver should be remonetized and restored to its place in the currency of this Nation and as a money metal accorded it by the founders of the Republic. We assert that we are for the free and unlimited coinage of silver at the ratio of 16 to 1, and we hereby instruct the delegates to the National Republican Convention to use every means in their power to secure a clause in the national platform favoring the free and unlimited coinage of silver."

Similar instructions were given to the delegates of the National Democratic Convention, at Chicago, in 1896. The following extract from the Democratic platform at Chicago, in July, 1896, meets the unanimous approval of Arizonians:

"We demand the free and unlimited coinage of both silver and gold at the present ratio of 16 to 1, without waiting for the aid or consent of any other nation."

Political parties are not as well defined in Arizona as they are in the settled states. A large share of the population is made up of men of strong individuality, drifting in from all sections of the country; independent in thought as well as in action, liberal in their views, and consequently lacking the bias and prejudice often found among less observant people. Hence, as a rule, their allegiance to the orthodox political parties is more or less uncertain. Their independence in political matters is evidenced by the introduction of the Australian ballot system, which has been in vogue since 1890. While it is true that during the last twenty-three years but one delegate has been sent by the Republican party to Congress from this Territory, the Legislatures, as a rule, have been pretty equally divided. In the Legislature of 1892-93, however, the Democrats had a majority of two-thirds in both houses.

The paramount question with the people of Arizona to-day, aside from the money problem, is that of statehood. For many years the people have longed for this inalienable right guaranteed by the genius and spirit of our system of government. Territorial rule is an anomaly in a government by, of, and for the people. In 1891, by authority of the Legislature, delegates were elected to a constitutional convention. The con-

vention met and framed a constitution, which was adopted by the following vote:

Counties.	Yes.	No.	Total.	Majority.	
				For.	Against.
Apache	397	84	481	313	.....
Coconino	107	172	279	.....	65
Cochise	688	233	921	455	.....
Gila	227	209	436	18	.....
Graham	705	127	*848	578	.....
Mohave	219	58	277	161	.....
Maricopa	1,357	370	1,727	987	.....
Pinal	177	161	338	16	.....
Pima	786	202	988	584	.....
Yuma	156	115	271	41	.....
Yapavai	621	551	1,172	70	.....
Total	5,440	2,282	7,738	3,223	65

* Sixteen rejected for informalities.

Arizona has the population and the taxable property to entitle her to the right of self-government. Her people have passed through the ordeal of conquering this Territory from savagery to civilization. Less than a quarter of a century ago the entire Territory was in the hands of the Apache Indians. Now, after a struggle of many years, in which a large number of pioneers and many of their families were sacrificed, thousands of families have established homes in the mountains and valleys. In place of the warwhoop, the voices of children in the schoolhouse are heard, and on the Sabbath the churches, whose spires point heavenward, resound with the same songs of praise and devotion as ascend from the churches in the far-off Eastern States. All kinds of humanizing influences have taken hold upon the Territory—commercial, educational, reformatory and religious. The arid plain is made to yield to the industry of the farmer and is dotted with gardens and orchards everywhere. The Indian goes on his raids no more, but is gathered into the reservations, and in place of plying his trade with the scalping-knife and deadly rifle, he is engaged in tilling the soil and his children are being educated in the schools. Many of the States admitted during the last forty years had no greater population than Arizona has now, no more developed and much less undeveloped wealth, not as many schoolhouses, churches or refining agencies. The people here have trodden the wine-press of suffering in order to reach that promised hope written in the Constitution of our country—self-government. The citizens of the older States should be mindful of the fact that the people here are their people; the population which

stands to-day knocking for admission to statehood is made up of the sons and daughters, the sisters and brothers of those in every State in the Union.

It is urged by some that the Territory has a debt upon its hands. It is true, a debt of \$2,000,000, but it must be remembered that this debt, which includes Territory, counties and municipalities, is only a small part of the cost of the reclamation of this region to American civilization and all it means. The net debt of the Territory in June, 1895, was \$824,139.24. In lieu of this debt it has given to the States the sum of \$100,000,000 out of its mines alone. Could any other

kind is not in keeping with true patriotism. Apart from this, however, the statement is erroneous. Arizona to-day is doubtful; it has been doubtful for a number of years. By a careful analysis of the vote recorded at the last election, it is shown that with a reversal of less than 200 votes the same majority would have been given to the Republican party. This ought to be sufficient evidence to that party that it would have an equal show in the contest for the control of the State government. Hence there should be no objection from this source.

Again, it is claimed that Arizona is a silver Territory and that, as a State, her vote would be

THE FOLLOWING IS THE OFFICIAL VOTE FROM THE OFFICE OF THE SECRETARY OF STATE FOR DELEGATE TO CONGRESS FOR THE YEARS NAMED:

Counties.	1864.			1866.			1868.			1870.	
	John N. Goodwin	Charles D. Poston.	Joseph P. Allyn.	Coles Bashford	Charles D. Poston.	Samuel Adams.	John A. Rush.	R. C. McCormick.	Samuel Adams.	R. C. McCormick.	Peter R. Brady.
Yavapai	409	52	118	226	217	48	425	202	9	482	620
Mohave	80	56	29	27	65	89	40	23	9	51	1
Yuma	56	149	26	89	146	31	300	80	.....	738	33
Pima	162	3	203	526	89	.....	71	932	14	522	178
Pah-Ute .....	.....	.....	.....	141	1	.....	.....	.....	.....	89	.....

Counties.	1872	1874.			1876.		
	R. C. McCormick.	C. C. Bean.	Hiram S. Stevens.	John Smith.	Hiram S. Stevens.	W. H. Hardy.	G. H. Oury.
Pima	652	22	700	257	497	26	206
Pinal .....	.....	.....	.....	.....	75	3	205
Yuma	650	106	248	31	164	6	29
Mohave	349	219	31	17	26	202	57
Maricopa	262	88	159	184	32	11	251
Yavapai	609	641	304	82	400	801	259

Territory, when claiming admission, show a better record than this?

Objection has been raised to the Mormon population. This population does not exceed one-eighth of the people, and it must be added there is no more thrifty, temperate, industrious, or better disposed body of citizens in the Territory. The practice of polygamy is now unknown among them. They have done as much to bring about the prosperous conditions with which Arizona is blessed to-day as any other section of the community, especially in the reclamation of the soil by irrigation, of which they are the acknowledged masters and the pioneers in the United States.

It is likewise urged that Arizona is a strong Democratic Territory. A consideration of this

given in the interest of silver as against gold. This claim is likewise misleading. Arizona is to-day more of a gold than a silver producing Territory. Her gold production was more than treble her silver production in 1892. From the present outlook her yield of gold will be much greater than that of silver.

Arizona, with but two political parties in the field (the Democratic and Republican), is Democratic by 1,500 majority. The elections for the last ten years demonstrate this fact. The election of 1890 gave M. A. Smith, for Congress, a fraction over 3,000 majority. In 1892 this majority was reduced to 1,299. In 1894 three tickets were in the field—J. C. Herndon, Democrat; N. O. Murphy, Republican, and William O'Neil, Populist. The total vote cast was 13,427, being 1,792

more than in 1892, of which Herndon received 4,773, Murphy 5,848, and O'Neil 3,006, Murphy's plurality being 875. M. A. Smith is a resident of Cochise County, J. C. Herndon and William O'Neil of Yavapai, and N. O. Murphy of Maricopa. These facts are suggestive.

The Grand Lodge of Arizona, Independent Order of Good Templars, was instituted January 15 and 16, 1892, by Geo. B. Katzenstein, D. R. W. G. T., of California, with ten subordinate lodges represented, and a total membership of about 500. J. B. Mullen, of Tempe, was the first Grand Chief Templar, and A. P. Walbridge, of Phoenix, Grand Secretary. By the reports of the Grand Secretary for the years 1895-96, it appears that there are now twenty-one lodges, with an

The first lodge organized in the Territory was Garden Valley No. 1, in Phoenix, March 21, 1878, and the charter has never been surrendered. The lodge is still working and has a membership of 125. The lodges are distributed by counties, as follows: Maricopa 7, Yavapai 5, Pinal 3, Graham 2, Coconino, Cochise and Pima each 1.

The following extracts are from a paper recently prepared by Bishop G. H. Adams on Methodism in Arizona:

"Perhaps the first minister of our church to preach within the Territory was Rev. J. L. Dyer, of the Colorado Conference, some time in 1868. In 1872, Rev. G. H. Reeder, of Ohio, was appointed by Bishop Simpson, to this Territory. He is everywhere spoken of as a faithful and

THE FOLLOWING IS THE OFFICIAL VOTE FROM THE OFFICE OF THE SECRETARY FOR DELEGATE TO CONGRESS FOR THE YEARS NAMED.

Counties.	1880.	1882.	1884.	1886.	1888.	1892.	1894.
Apache.....	599	961	1,255	910	835	855	973
Cochise*.....		2,724	2,349	1,721	1,673	1,255	1,150
Coconino.....						874	961
Gila*.....		710	601	514	433	688	545
Graham*.....		563	1,013	844	899	915	1,212
Maricopa.....	1,012	891	1,446	1,539	1,990	2,298	3,182
Mohave.....	269	455	534	516	470	487	499
Pima.....	3,484	1,804	1,704	1,564	1,524	1,329	1,436
Pinal.....	795	672	748	789	865	541	603
Yavapai.....	1,513	2,171	2,578	2,132	2,546	2,043	2,439
Yuma.....	282	311	263	298	303	350	427
Total.....	7,954	11,262	12,491	10,827	11,538	11,635	13,427

* Not organized in 1880.

aggregate membership of about 900. The order is in a healthy, vigorous condition, and is being more firmly grounded in the Territory each year.

The Executive Committee of the Grand Lodge for the years 1896-97 are: A. P. Walbridge, P. G. C. T., Phoenix; S. S. Green, G. C. T., Phoenix; Mrs. C. T. Hirst, G. V. T., Glendale; Mrs. C. W. French, G. S. J. T., Crown King; J. Webster Johnson, G. S., Tempe; A. P. Shewman, G. T., Mesa City.

The Grand Secretary is Superintendent of the Lecture Field, also, which is a very important part of Good Templar work. During the years 1895-96 more than \$1,000 was expended in this department.

The official organ of the order is the Iowa Temperance Magazine, the Arizona department being edited by A. P. Walbridge, who has filled this responsible position since the organization of the Grand Lodge.

earnest man, who was devoted to his church and the cause of Christ.

"In 1874, Rev. D. B. Wright, of the New York Conference, came to the Territory, via Isthmus of Panama, San Francisco, and thence up the Colorado River to Ehrenburg. He remained here for five years, doing good service, and in 1880 removed to Los Angeles, where he now resides.

"One of the most laborious and dangerous experiences of our ministers was that of J. J. Weingar, who is well known here. He left his home in Kansas in June, 1877, and made the journey with his family in a wagon overland, reaching Prescott, September 18 of the same year. He suffered during the journey, both from the heat and cold, rain and drouth, and in the sparsely settled country could not always readily obtain an adequate supply of provisions. The danger from Indians was often serious, but the trip was made in

safety. Brother Weingar filled different pastorates in the Territory for over four years, but in 1881 announced his intention of retiring from the Mission, which he did, and is now living in Tempe.

"In July, 1879, I was induced by Bishop Simpson to come to Arizona. When I reached here on September, 1879, there were only four Protestant places of worship in all Arizona.

"During the year 1880 the working force in the Territory consisted of G. H. Adams, superintendent and pastor, at Prescott; J. De Wolf, Phoenix; J. J. Weingar, Globe; D. B. Wright, Pinal and Florence; W. G. Mills, Tucson, and J. P. McIntyre, Tombstone.

"In 1881, four new houses of worship were established, viz: Tombstone, Tucson, Pinal and Phoenix. At Tombstone the church was dedicated with appropriate ceremonies, May 29, 1881. Later in the year the three churches of Tucson, Pinal and Phoenix were dedicated. The crowning event of the year, however, was the formal organization of the Mission. Hitherto, the whole work had been directed and planned by the superintendent."

Bishop Adams has been in Arizona ever since he first came in 1879, and his efforts in behalf of Christianity have been felt throughout the entire Territory. He is a progressive citizen, and has done much to bring about the present high standing of morality.

While Arizona's ratio of churches and adherents thereto does not compare with those of older settled communities, it must not be forgotten that it is but a few years since this Territory was under the control of the Indian, and that a large part of the population has but recently come and established homes, and that in a measure the population is not yet molded and fixed to their new conditions; yet, notwithstanding all this, our church interests are making encouraging progress. There are more than one hundred church edifices and several denominational, educational and other institutions, which evidences the fact that our people have brought with them from their homes the teachings and religious convictions of their fathers. The strength of the various religious organizations, in June, 1895, is as follows:

Methodist Episcopal Church.—Fifteen preachers, 750 members, 1,400 Sunday-school children, 15 churches; value of churches, \$75,000; 8 par-

sonages, valued at \$16,100; value of school property, \$20,000; total value of property, \$95,000.

Episcopal Church.—Five ministers, 879 adherents, 225 communicants, 152 Sunday-school children, 6 church buildings; value of church property, \$27,875.

Methodist Episcopal Church South.—Seven ministers, 520 members, 520 Sunday-school children (increase of 126 for year), 6 churches; value of church property, \$22,500; 5 parsonages, valued at \$8,000; 2 Mexican missions—members, 115; value of church property, \$3,200.

Presbyterian Church.—Ten ministers, 550 communal members (an increase of 90 for year); Sunday-school membership, 970; value of church property, including Indian mission-school building, \$57,000.

Congregational Church.—Communicants, 213; Sunday-schools, 8; membership, 300; number of Young People's Christian Endeavor Societies, 4, with a membership of 99; total valuation of church property, \$15,000; home expenditure for 1894, \$3,210.

Baptist Church.—Ministers, 4; adherents, 635; communal membership, 275; Sunday-school children, 266; churches, 5; value of church property, \$27,875.

Christian Church.—Three ministers; 160 members; 2 churches; value of church property, \$4,500.

Catholic Church.—A presiding bishop; 17 resident priests; 10 chapels. The membership and the value of its property is greater than that of all the other churches combined. This includes four hospitals, two orphanages, and other charitable institutions under control of the church.

Mormon Church.—Ministers, 49; membership, 7,240; Sunday-school pupils, 2,601; churches, 34; value of church property, \$36,500.

There seems to be no doubt that the first newspaper published in the Territory was a small sheet called the *Arizonian*, issued at Tubac early in the spring of 1859. It was under the control, and probably under the ownership, of the Santa Rita Mining Company, of Cincinnati, Ohio, which had brought to the place an old Washington press and a small quantity of type. It was edited by a Col. Cross, who, probably, conducted the same until March 9, 1861, when it was for the time being, discontinued, the last number containing an attack on President Lincoln. It was devoted

to mining and occasionally the Democratic doctrines shone through its columns. The old press afterward passed through many hands.

The *Arizona Journal-Miner* is published daily, every evening except Sundays, and the weekly edition being published every Wednesday. The editor and proprietor is J. C. Martin, a veteran of nearly thirty years' service in newspaper work. The paper lays claim, and with apparent justice too, of being now the oldest paper in the Territory, showing an unbroken series clear back to March 9, 1864. The material with which the first issue was published was purchased in St. Louis, by Hon. R. C. McCormick, Secretary of the Territory, as he was en route to Arizona to take charge of the position. Accompanying Mr. McCormick were other Territorial officials, and on their arrival at Chino Valley the seat of government was temporarily established there, at Camp Verde, and it was there that the first issue of the *Arizona Miner* was published, on the above date. A few months later the seat of government was moved to Prescott, and with it came, also, the *Miner* where it has been located and published, without missing a single issue, ever since. The early history of Arizona is closely interwoven with the history of the paper, the vicissitudes of the early pioneers, the struggles for supremacy between the whites and Indians being recorded on its pages. In fact, the old files of the *Arizona Miner* come nearer furnishing an accurate history of the early period of the Territory than any other work.

Among those who, at different periods of its existence, presided over its destinies as editor, only a few remain. Hon. T. J. Butler, now a retired capitalist, who edited it in 1875-77, and B. H. Weaver, the latter still a resident of Prescott, are the only ones of whom any accurate knowledge is obtainable.

In August, 1885, the business, subscription list and good will of the paper was purchased by its present editor and proprietor, who was at that time the proprietor of the *Arizona Journal* established just one decade later than the *Miner* in May 1874, and the business of the two papers was consolidated under the hyphenated name of *Journal-Miner*. Its existence dates from within a few months of the first settlement in Northern Arizona, and it has kept pace with the progress of the Territory, prospering with its prosperity, faithfully

recording passing events in its news columns and advocating in its editorial columns any and all measures that would tend to promote the material interests of the country or add to the prosperity of its people, and in consequence enjoys the confidence and esteem of citizens all over Arizona, as well as a deservedly large patronage from them. The daily was first issued in December, 1873, and has proved a great source of strength to Prescott and to Yavapai County.

The *Arizona Journal* both daily and weekly, was established at Prescott in May, 1874, by the Arizona Publishing Company, and at once took a prominent place among the leading journals of the Territory. It was ably managed and edited until 1885, when it was consolidated with the *Miner* under the name *Arizona Journal-Miner*.

The daily and weekly *Arizona Citizen* was established at Tucson in October, 1870, and is therefore one of the oldest newspapers in the Territory. Its files are a history of Arizona since that date. Its strong Republican standing has done much to maintain the strength of that party in Arizona. It has always been ably, yes, brilliantly, edited and judiciously managed. Its motto is, "In business, newsy; in politics, Republican." Its job department and its book bindery are unusually complete. It is a member of the Associated Press. Its circulation is very large and extends to all portions of the Territory. It was first issued by John Wasson, with W. W. Hayward editor.

The *Arizona Sentinel* was established at Yuma in 1870, by the Sentinel Company, at the head of whom was J. W. Dorrington. For many years Judge W. M. Berry was the editor. Later George E. Tyng, succeeded him and still later, J. W. Dorrington. It has always been one of the leading journals of the Territory.

The *Phoenix Herald* was first issued February 22, 1878, by Charles McClintock & Co., with N. A. Morford editor. In October, 1879, a daily was issued in conjunction with it. From the beginning it was strongly and ably edited and wisely conducted. It is doubtful if any other newspaper of Arizona has done more to advertise to the world the resources of the great central valleys and mesas of the Territory than the *Herald*. Its news items are particularly valuable.

The *Arizona Daily and Weekly Star* published in Tucson, was founded in March, 1877, by Louis O. Hughes. It was the first Democratic journal



C. H. AKERS.

established in the Territory and was the main prop of that party in its early struggles to gain Territorial supremacy. Unquestionably, the *Star* can justly claim chief credit for placing the Democratic party in power here. It has always taken an advanced position in everything tending to the prosperity of the commonwealth. At the outset it declared the true policy for the settlement of the Indian question, *v. e.*, the removal of the Indians to some distant point far removed from their old homes and haunts. This was finally accomplished by the removal of the Chiricahua Apaches to Florida, thus bringing ultimate peace to Arizona. It stands boldly for law, order, morality, justice, and is vigorous in its attacks on the liquor traffic. It has a large circulation.

El Fronterizo is a Spanish journal published at Tucson, first issued in 1878. It is live, progressive, ably edited and wisely managed and is owned and edited by Carlos Y. Velasco. It has an excellent field in which to work and has a good circulation.

The *Arizona Gazette*, daily and weekly, was established at Phoenix in October, 1880, by C. H. McNeil & Co., and at once took rank as one of the leading newspapers of the Territory, particularly in exploiting the wonderful resources of the Salt River Valley. It is well equipped with material and brain for its useful career as one of the strongest newspapers in Arizona. Within its files is a complete history of Phoenix and, indeed, of Arizona, since the paper first started. It is an advocate of Democracy. Its owners and managers, Messrs. Johnstone and Dunbar, have the respect and confidence of the people of the Territory.

The *Arizona Silver Belt* was first issued at Globe, in Gila County, in May, 1878, and soon became the great mining journal of that part of the Territory, under the able editorship of Judge A. H. Hackney. The *Chronicle* was also founded at the same place, about 1881, by W. H. Glover.

The *Mesa Free Press* issued by Judge Morton and W. A. Shewman, is a live, progressive paper and has a good circulation.

Our Mineral Wealth was first issued at Kingman on the 14th of July, 1893, by Kean St. Charles, sole owner and manager, and was designed to advertise particularly the mineral wealth of Mohave County. It has been issued ever since, is the official paper of the county and has a circulation of about 500.

Among other early journals was the Spanish paper, *Los Dos Republicas*, at Tucson, in the '70's, by Charles H. Tully; the *Arizona Enterprise*, at Mineral Park, Florence (under T. H. Weedin), and Prescott in about 1875; the *Arizona Citizen*, under John C. Clem, at Florence, in the '70's—a branch of the *Citizen* at Tucson; the *Prescott Courier* by J. H. Mariou, in February, 1882; the *Champion*, at Flagstaff, by A. E. Fay, in 1883; the *Tombstone Epitaph*, at Tombstone, in Cochise County, by Reppy, Clum & Sorin, in 1880; the *Orion Era*, at St. Johns, in Apache County, by the St. Johns Publishing & Printing Company, in 1883; the *Apache Chief*, at St. Johns, by Geo. A. McCarter, in 1884; the *Mohave County Miner* at Mineral Park, by Smith & Hyde, in 1882; the *Arizona Methodist*, at Tucson, by George H. Adams, in 1881; *Live Stock Journal* at Tucson, by Cameron Brothers, in 1884; the *Clifton Clarion*, at Clifton, in Graham County, by D. L. Sayre & Co., in 1883; the *Arizona Mining Index*, at Tucson, by L. C. Hughes, in 1883; the *Prospector*, at Quijotoa, Pima County, by Harry Brook, in 1884; the *Benson Herald*, in Cochise County, by W. A. Nash, in 1883; the *Holbrook Times*, in Apache County, by Henry Reed & Co., in 1884; the *Pinal Drill*, issued at Pinal, in the county of the same name, early in the '80's, by J. De N. Reymert; the *La Union*, at Phoenix, by Aguierre & Cellis, in 1883; the *Sulphur Valley News* in Wilcox, Cochise County, by Montague & McFarlin, in 1884; the *Tombstone Nugget*, established about 1882; *El Mercurio* at Phoenix, by E. T. Davilla, in 1884, and others. Many of the present journals, those established recently, will be found mentioned in the chapters on the separate counties.

There were, in 1895, nine daily journals, twenty-three weekly, and three monthly publications established in the Territory. Politically, five dailies are Democratic and four Republican; thirteen of the weeklies are Democratic, eight Republican, and two independent. There are two monthly educational journals and an illustrated monthly, *The Arizona Press*, which is ably edited, strong in its advocacy of men and measures, pronounced on all questions of public concern, and loyal to the Territory and its every interest, and receives a cordial support from the people.

The Arizona Press Association was organized February 9, 1891, its first officers being: L. C.

Hughes, president; George W. Brown, first vice-president; John H. Marion, second vice-president; S. C. Bagg, third vice-president; W. L. Vail, secretary; John W. Dorrington, treasurer; N. A. Morford, Ed S. Gill and John O. Dunbar, executive committee. The association comprises the leading journalists of the Territory, who bring to their aid in the management of this organization wide experience and high literary ability.

THE JUDICIARY.*

The Judicial system of Arizona has one Supreme Court, composed of one Chief Justice and two associates, who are appointed by the President of the United States, by and with the advice and consent of the Senate. The Supreme Court is the court of last resort for the Territory. The jurisdiction of the court, the powers and duties of the judges, are similar to those of the Supreme Courts in the States. Appeals and writs of error may be taken from the Supreme Court of the Territory, to the Supreme Court of the United States, which court is the court of last resort having appellate jurisdiction over the Supreme Court of the Territory. This jurisdiction is limited as to amount involved or to the questions involved, substantially as is the limitation upon appeals for the Circuit Courts of the United States. The Territory is divided into three districts, to each of which one of the judges is assigned and where he must reside. This District Court exercises the jurisdiction of the Circuit and District Courts of the United States in the States. In each of the counties of each of the districts, there is a District Court of general *nisi prius* jurisdiction. This court administers the criminal law of the Territory, and, in addition, a general civil jurisdiction. In this court causes involving the rights of person and property are brought. There is in each county a Probate Court, which has care for the estates of deceased persons. Justices of the peace courts exercise a jurisdiction in civil causes to the amount of \$300 and misdemeanors, and they are peace officers and examining magistrates. The executive officers are a United States Marshal, who performs the duties incident to that office elsewhere; a sheriff in each county, and constables.

In the counties of the Territory there have been

*By Judge W. H. Barnes.

erected courthouses worthy of the older States, particularly at Prescott, Phoenix, Tucson and Tombstone; structures of good architectural plan and finish, admirably adapted for the convenience of the court and officers. Such is the machinery of the law. The jurisprudence of the district courts includes all causes which may come into the United States Circuit and District Courts, and all the causes that may come into the State Courts of general jurisdiction.

The peculiarity of the situation and resources of the Territory are such as to give rise to a great variety of subjects. Questions arising out of the public land laws are numerous. The border brings up questions of national boundaries and the customs laws; the internal revenue law contributes its quota; the mines give rise to questions of great intricacy and involving immense values. The law as to irrigation and the rights to the use of water require the settling of new questions. The Indians and the reservations are under jurisdiction of the courts. The Mexican land grants involve an investigation of the jurisprudence of Mexico, both under the vice-royalty and the republic. The customs of the range are to be settled in the courts. It will be seen that no judge on earth administers as broad and varied a jurisdiction as the Territorial courts in the West. In the older states, rights have been settled by long lines of precedents, and a majority of causes are settled by considering the decisions and precedents of the state courts. Not so here. Hence the decisions of every court are sought after for precedents. This condition requires vast research by the bench and bar. The bar here is equal to their demand. Coming as they have from almost every state, they have met here on a common field to do battle for their clients, and no labor is avoided; no study shunned to turn the scale of a doubtful case. No abler or more learned lawyers can be found anywhere. They are not apt to be specialists. They are general all around lawyers, equipped and ready for any issue when the case is called. They can step into the courts of any State prepared to meet the home lawyers with their own practice and discussions, and to treat them on their own ground. It follows, therefore, that rights of persons and property are as safe here as anywhere, and cases are fairly tried and just conclusions reached. Experience has demonstrated that this Territory is

obedient to law and order. Crime exists to a small degree compared with older States, and the character of the crime indicates less of turpitude. There are fewer burglaries, embezzlements, etc., which indicates a distinct criminal class. Violent crimes, which come from anger and hot heads, prevail, but less and less.

Upon the courts rest all rights of person and property; to them we look for order and protection. In this Territory confidence in the administration of justice exists and will exist to the same degree as elsewhere under the American flag, while liberty and law prevail, and equal and exact justice is dealt out to all.



CHAPTER XV.

APACHE COUNTY.

Apache County was created in 1879 and lies in the northeastern corner of the Territory. Until March, 1895, it also embraced what is now (1896) Navajo County, but at that date the latter was set apart and established as a separate county. Apache County is justly noted for its great natural resources and advantages. It is destined some day in the early future to have a large agricultural population. Now, immense herds of cattle and flocks of sheep roam over its broad mesas and its fertile valleys. The Navajo Indians occupy the northern part of the county—in fact, occupy much of the remainder of the county, as they refuse to remain on their reservation, preferring to drive their sheep and cattle on lands outside their reservation, where the grazing is better. The southern part is a fine grazing country, while the northern part is cut up into picturesque gorges and canons by the floods of past centuries.

*The population of Apache County is about 3,000 souls, an approximate increase for 1895 of 2 per cent. The taxable property of the county amounts to \$960,000, as per assessment for 1895, as follows:

Land	\$230,889
Town lots.....	13,600
Improvements on town lots.....	75,000
Total	\$319,489
Horses, 2,500.....	\$ 45,000
Mules, 40 head.....	1,000
Burros, 100 head.....	500
Cattle, 15,000 head.....	130,000
Sheep, 98,500 head.....	127,000
Swine, 145 head.....	350
Goats, 245 head.....	145
	\$303,995
Approximate total value of mixed property	336,000
Aggregate valuation.....	\$959,484

*By W. H. Burbage, St. Johns.

	Acres.
Area of land under cultivation	20,000
Area of land reclaimed during the year	2,000
Area of land capable of reclamation..	200,000

The approximate length of irrigating canals in Apache County is 105 miles, the average width thereof being five feet and the average depth one foot six inches. The lateral feeders therefrom aggregate 185 miles in length, with an average width of two feet and an average depth of one foot. The average fall of water in both canals and laterals is three feet to the mile. There are six reservoirs now under construction, with a capacity to reclaim 20,000 acres. In addition the county has undeveloped water resources sufficient to reclaim 150,000 acres at a reasonable outlay.

Product.	Amount used.	Value.
Wheat	pounds. 650,000	\$13,000 00
Oats	do 600,000	9,000 00
Barley	do 175,000	2,187 50
Hay	tons 1,400	12,600 00
Corn	pounds 82,000	12,300 00
Beans	do 28,000	1,120 00
Potatoes	do 300,000	4,500 00
Total		\$54,707 50

In addition, dairy products of the approximate value of \$3,000 and orchard products (from 100 acres in trees) approximately valued at \$2,500, were disposed of during the year. Apples are more successfully produced than any other fruit, but this year the peach crop will be in excess. Coal is found in vast and almost unlimited quantities, but without transportation facilities the deposits can not be worked at a profit, and are consequently valueless.

Number of schools in the county, 10; number of teachers employed, 20; number of pupils, 829; average school months per year, 5½. There are 6 churches in the county, 3 Catholic and 3 Mor-

mon, or Latter-Day Saints. But one newspaper is published in this county, the St. Johns "Herald," established in 1878. It is a Democratic paper, has a good circulation, and is a credit to the publisher.

Scattered over the greater portion of Apache County, but more especially along the valley of the Colorado Chiquita River, are numerous ruins of a prehistoric people. In the immediate vicinity and just south of St. Johns are the ruins of two large towns, once containing not less than 3,000 or 4,000 inhabitants each. No doubt exists that these ancient peoples were at first "Phallic" and afterwards Sun Worshipers, as splendid specimens in the shape of images of both forms of worship, carved out of basalt, have been discovered. One of these specimens was eighteen inches in length and six inches in the thickest part. Wherever one meets these ruins, either in Arizona or New Mexico, they always show their main or principal entrance to face the east, and all were built of stone, with ordinary mud for mortar.

Twelve miles south of St. Johns, along the west bank of the river now called San Cosmo by the Mexican people, are other ruins of several towns. On the opposite side of the river from one of these ruined towns, near the summit of a "cerrito," is a large crevice or fissure extending into the cerrito perhaps sixty or more feet, from two to five feet in width.

During the summer of 1876, in company with a companion, Mr. Burbage made a partial exploration of this cave or fissure, and found there in hundreds, perhaps thousands, of bows and arrows, baskets, stone axes and stone hammers, used as implements of war and the chase; also specimens of turquoise used for nose and ear ornaments, periwinkle shells, and a peculiar bead used by all the aborigines of the Americas as "wampum," or medium of exchange. Unfortunately, some years ago an ignorant Mexican set fire to this valuable collection, and the entire lot was destroyed.

Still farther south, near the village of Springer-ville, are other ruins having the same characteristics, which also show these people to have possessed considerable engineering skill, as here were found large reservoirs constructed for the storage of the surplus waters of the Colorado River (what is now known as Becker's Lake was one of these reservoirs), and the canal leading

from the river to the reservoir is still plainly discernible. As a matter of fact, all over Apache County are to be found very many ruins of this class, not alone on the plains and along the valleys of the various streams, but high among the cliffs, almost inaccessible without the aid of ropes and ladders, are found the dwellings of these primitive people. This important field is comparatively untrodden by the antiquarian.

The rarefied atmosphere, still containing a high percentage of ozone, the freedom from sudden changes in temperature, and the absence of violent raw winds, render a residence in Apache County peculiarly adapted to those suffering from lung troubles.

Other essentials for a health resort are the not too extreme dryness of the air and the perfect natural drainage of all sections of the county. A practical point of interest to those of limited means is the opportunity for employment of a character not too severe, and requiring a large portion of the time to be passed in the fresh open air. There is an abundance of cool, pure spring water in every town and village throughout the county, a point of no little importance to the invalid, especially when taken in conjunction with the fact that there is a total absence of pools or swampland of foul and stagnated water. Owing to the altitude, varying from 4,000 to 10,000 feet, all streams flow rapidly and are well flushed out at different times of the year by the rains and melting snows in the mountains, oxidizing and washing away all decaying vegetable and animal matter and rendering the county absolutely free from any malarial disease. Asthma is unknown, as also scarlet fever. No case of smallpox or diphtheria has been reported for years. Measles occurs very seldom, and is of a mild character. Chronic lung troubles are almost unknown. Typhoid fever occurs only among those families who possess no pure spring or river water, but use the water from the sluggish irrigating ditches. With the possible exception of those suffering from rheumatism or neuralgic affections, Apache County can offer to the health seeker a favorable climate, good medical attention, a market from which the table can be supplied with plenty of nutritious food, and the proper kind of employment to those of limited means.

There is one hotel and one saloon in each of the following towns in Apache County: St.

Johns, Concho, Navajo, Springerville and Nutriosa. The undeveloped resources of the county are lumber and precious minerals. The wool-scouring industry, woolen mills, and a cheese factory or creamery could be established with every prospect of profit. There are great opportunities throughout the county for practical men with capital in both lumber and irrigation enterprises, as these are undeveloped or only developed in the most primitive way. At Navajo Springs, in this county, the Territorial Government was first organized in 1863.

Black-tailed deer, antelope, bear, mountain lion, grouse, wild turkey, etc., are found in abundance, and the mountain streams are filled with trout. Large deposits of coal are to be found in the county, which some day will be a source of great revenue.

Fort Defiance is situated on Defiance Creek, in the eastern part of the county. Generally the country north of the Atlantic & Pacific Railroad is rolling and hilly, with elevated mesas, on which stand groves of cedar and pine. Good grass grows over much of this part of the county. South of the railroad the county is well watered and timbered, and hence the valleys and plains are covered with grass. The snowfall in the White Mountains gives rise to many good springs and streams. Fort Defiance receives its supplies from Navajo Springs.

In about 1877 Gen. Kautz and party passed through the Navajo reservation in Apache County. He found the Canon de Chelly populated with Indians, who had large cornfields, peach orchards, flocks of sheep and goats and herds of horses. Over much of the reservation he saw immense flocks of sheep and goats. The many fine springs were made use of by the Indians. On the Little Colorado was a well-traveled wagon road, made evidently by the Mormons. Wild turkey and antelope were abundant.

St. Johns is the county seat and principal town. It was first settled by Mexicans, who came from the Rio Grande in 1872. Ten years later that vicinity began to be settled by the Mormons under the leadership of Ammon M. Tenney, who founded a "stake" of that faith in and around St. Johns. Others came, and soon the settlement became strong. The people are engaged in growing fruit, grain, hay, vegetables, wool and beef,

The fruit consists in peaches, pears, apples and grapes. The production of honey is large. By means of ditches and canals water is taken from the Little Colorado. Several irrigation companies, among them the St. Johns, supply water at reasonable rates. The reservoir of the St. Johns company covers about sixty acres. St. Johns has an altitude of 5,700 feet, has a population of over 1,000, has a large flouring mill and a good hotel, and has several substantial business houses. It is situated on the Little Colorado River. Many fine farms are near. The handsome county court house stands here. Many houses are adobe. Many Mexicans live here. Two weekly newspapers have been issued.

Springerville, situated about thirty-five miles southeast of the county seat, has an altitude of about 6,500 feet above the sea and has a population of about 800. It stands in Round Valley, in one of the most flourishing settlements on the Little Colorado River. Around it is a fine agricultural country where grains, fruits, vegetables, etc., are grown in profusion. Canals from the river supply water in abundance. Becker Lake, one and one-half miles long by half a mile wide and twenty-five feet deep, supplied with water from the mountains, furnishes an excellent natural reservoir. Fine fish—trout and carp—are found therein. Much of the produce of this valley finds ready sale at Fort Apache, where three companies are stationed. The town has several stores and shops and a fine flouring-mill. Several sawmills work up the logs from the pinery.

Concho has a population of about 500 and is situated fifteen miles west of St. Johns on Concho Creek. Many good farms are in this vicinity, and many vast sheep ranges get their supplies here.

Nutrioso is located about fifteen miles southeast of Springerville and has a few hundred population. Around the town is a number of fine farms. Water from Nutrioso Creek is collected into a reservoir and thence is sent by ditches and canals to the farms. The area of cultivated land is steadily increasing. A tannery is located here.

Alpine, in the extreme southeastern part of the county, is surrounded by a fine tract of soil, which is irrigated by springs and by Alpine Creek, but as the altitude of this place is about 9,000 feet, the rainfall is nearly sufficient to supply abundant moisture to the wheat, oats, barley, etc.

CHAPTER XVI.

COCHISE COUNTY.

Cochise County was set apart from Pima County and organized in 1881, and was named for the famous Apache chief, Cochise, who, with a band of Chiricahuas, made his stronghold on the Dragoon range of mountains, and, like an European robber-baron of the Middle Ages, swooped down on those who passed along on the plains below and robbed and murdered without mercy. So bold was he in his depredations, and such terror did he inspire in the breasts of all, that no one finally dared venture within striking distance of the raids of this terrible mountain bandit. Indeed, it was not until he was starved out of his stronghold and happily hanged, that anything like an attempt was made to settle up the county, now called by his name, or to develop its varied and valuable resources.

Little was done in this section of the Territory prior to the Civil War, save a few settlements on the San Pedro and at minor points. Hence the history proper of this county may be said to have begun with the discovery of the mines in the Tombstone district in 1878, antedating the organization of the county by the space of three years.

Prior to 1878 the country beyond the San Pedro was given over to a domination of the Apache outside of the one traveled wagon road to the east. The grassy plains and hills were bare of cattle, and its mineral treasures were but in the imagination of the curious. In February, 1878, Ed Scheffelin, a prospector, who had tramped much of the territory in vain, stumbled across the croppings of what is now known as the Toughnut mine and located several claims upon the ledge. It was about the time that the Comstocks and Bodie were showing signs of collapse, and the miners of the coast flocked by the hundreds to the new discovery. A city of tents sprang up, and by June of 1879 a stamp mill was in opera-

tion. The mines had not been overrated; they were veritable bonanzas, and during their season of activity have produced over \$25,000,000, about \$5,000,000 of which took the form of dividends to the stockholders. Fully \$7,000,000 more was spent upon hoisting plants and milling machinery. Up to 1885 was the busy time, when the burning of the hoisting works of the Grand Central mine cast a gloom over the camp, and the water gained upon the miners, and the main properties were closed down for a long season of inactivity. The ore on the lower levels is of high grade, and there yet remain vast quantities of it. But to reach the ore it would be necessary to inaugurate a combination pumping plant that would cost in the neighborhood of \$1,000,000, and this expense the mine owners are not inclined to put upon themselves until assured of the future of silver. With a combination of capital the mines will yet be cleared of water, and operations resumed on as grand a scale as ever before.

Mr. John Montgomery, one of the early correspondents of the "Citizen," writing from San Pedro, A. T., February 7th, 1871, gives the following description of the settlement and subsequent growth of the San Pedro valley, and the afflictions they endured at the hands of the remorseless Apaches up to that time. It will be appreciated by many of the old-timers:

"The lands here were first located December 15, 1865, by Mark Aldrich, John H. Archibald, F. Burthold, Jarvis Jackson, John Montgomery and H. Brown, of Tucson. A crop of wheat and barley was planted. In February, 1866, the work was commenced on the ditch to convey water to the land. By April 25 all were ready to plant a corn crop. Houses had been built and land secured. The detachment of soldiers that had been promised us to be permanently stationed here had

arrived, and each day brought arrivals of settlers to the valley, until the population reached 100 men, women and children. In September the soldiers were taken away from here. The crops produced in the valley the first year amounted in all to about 350,000 pounds of wheat, barley and beans. During the year there was not a single death from any cause, nor were there any Indian depredations. All was peace and prosperity.

"The commencement of the first Apache depredations was in 1867. The Indians attacked some Mexicans while plowing, and killed one of their number. A few weeks later they attacked a herd of oxen and killed the herder, and drove off one horse and four yoke of oxen. Some of the settlers in the lower part of the valley became alarmed, and talked of leaving their places. About this time Captain Hinds, of the firm of Hinds & Hooker, happened in the settlement and wrote a petition which was signed by a number of citizens and forwarded to General Crittenden, asking for a guard to be stationed at this place. The general immediately sent ten men. They remained here until the next year. In September three more horses were stolen, the property of Ruis Burthold and Lopes, making for the year two men killed and twelve head of stock stolen. About 250,000 pounds of corn was raised in the valley.

"The Apaches commenced, in 1868, by breaking into the house of Mr. Colwell and robbing it and destroying a considerable amount of property. During the year they stole from the settlement eleven head of stock—eight horses and three oxen. Six of the horses were the property of Colwell and Burthold, and two belonged to Brown and Wesley. The oxen belonged to Montgomery and Ruis. No person was killed during the year, and the crops were about the same as the previous year.

"In 1869 the valley received a number of new settlers; ditches were constructed, and there appeared to be a change for the better. The Indians commenced depredations about the first of April, and from that time until January, 1870, they killed six Americans and stole fourteen head of valuable horses. In April they stole Mr. Gardner's horse; in May, two from Nelson & Brother; same month, two from Mr. Hartsell, and about the last of the month attacked and killed a man in the employ of Mr. Brown, and took off the team—a valuable horse and a mule. On the third of

July they attacked the house of Wesley & Co., killed Mr. Johnson, destroyed the entire property and took off four horses. The owners of the place estimated their loss at \$800. The same day they killed two men at the farm above Wesley's. About the last of August the Indians stole two horses from Miller & Smith."

*Cochise County is situated in the southeastern part of Arizona; is eighty-three by eighty-four miles in area, and contains 6,972 square miles, an area five and one-third times greater than the State of Rhode Island, three and one-fourth times greater than Delaware, and one and one-half times greater than the State of Connecticut. It is situated on the Continental Divide, between the Pacific Ocean and the Gulf of Mexico, the highest altitude along the Southern Pacific railroad from San Francisco to New Orleans being at Dragoon Summit, the altitude being about 3,800 feet above sea level.

The San Pedro river has a watershed of twenty-five by twenty-eight miles in Sonora, Mexico, and in Cochise County a watershed of twenty-five miles in width by eighty miles in length, or a total, including Mexico, of twenty-five by 108 miles, or 2,700 square miles, of which 2,000 square miles are in Cochise County, which waters flow through Cochise County. The San Simon creek drains a watershed of thirty-six miles in width and forty miles in length, or an area of 1,440 square miles. The Sulphur Spring Valley drains an area thirty miles in width by ninety in length, or an area of 2,700 square miles; this valley, like the San Simon, having a sandy soil, carries a broad underground stream a few feet below the surface throughout the greater portion of its length. The foothills on each side of the mountains are covered with nutritious grasses most of the year, which render it valuable for grazing purposes. San Simon Valley and San Pedro Valley, as well as the Sulphur Spring Valley, are covered with a luxuriant growth of grass, which makes them the finest cattle ranges in Arizona.

In the San Pedro Valley there are but two points where reservoirs can be built to advantage. First, on the lower portion of the valley, at a point where the foothills come close together with solid rock upon each side and bottom. At this place, about fifteen miles below or north of the town of Benson, a dam 350 feet in length and

*By William H. Hattich, Tombstone.



A. P. Behan

forty feet high will overflow an area of a mile square and average ten feet in depth, or a storage capacity of 278,784,000 cubic feet. The area of bottom and low table-land in Cochise County that could be irrigated by the construction of this dam would be over 3,000 acres. The second reservoir site on the valley is one and one-half miles above Charleston and twenty-six miles above Benson, where the foothills come down to the river, forming solid rock banks 100 feet high, where a dam of sixty feet in height and 400 feet long would store over 300,000,000 cubic feet of water. There are several points along the San Pedro River upon the west side where storage reservoirs could be built, notably at a point that is known as Page's Canyon, which drains from the southerly portion of Happy Valley. At this point the canyon is narrow and walls solid, where a dam 160 feet in length and seventy-five feet high will store over 200,000,000 cubic feet of water and bring under cultivation over 2,000 acres.

At St. David, a thriving little settlement in this valley, five artesian wells are giving forth the life-giving fluid in a steady flow, and are being used to irrigate a vast amount of land. This portion of the county gives the best indication, from its surroundings, for the sinking of artesian wells, with which these large areas could be irrigated with but a very small loss from evaporation.

Cochise's foremost industry is mining. It is one of the best mining counties in the Territory, and has earned a national reputation through the marvelous richness of its ore bodies and dividend paying mines. To prove this fact, mention need but be made of the number of the big mines which have paid millions in dividends. Without dwelling on the geological features, etc., a brief resume of the notable mines of the county which have been producers will not be amiss.

Many of the silver mines are at a standstill owing to the demonetization of silver, and those mines which have ranked with the greatest silver producers of the West are but waiting for the turn of the tide of the white metal and favorable legislation to again resume former prosperity.

In the Tombstone district, among the notable mines, the Tombstone Mill and Mining Company stands prominent. It has operated a number of mines in its group, having at different times employed a large number of men, and is continuing work on a systematic scale, and shows

a brilliant record. Over \$8,000,000 has been produced by this company since it commenced operations, and it now owns the following mines, all of which have extensive mining machinery and hoisting works erected upon them, viz.: Toughnut, North West, Lucky Cuss, West Side, Fifth Street, besides other minor claims. The company also owns a 20-stamp mill.

The Contention Company has paid over \$3,000,000 dividends and produced immense wealth. The consolidation of the Western Mining Company and the Flora Morrison Sulphuret was consummated in 1881, under the name of the Contention Company, and in 1883 the total dividends of both companies amounted to \$2,475,000. The company also owns a 25-stamp mill located on the San Pedro River. There were erected on the Contention and Grand Central mines two colossal pumps, each with a capacity for pumping about 1,000,000 gallons every twenty-four hours, to cope with the water in the lower levels, but fire destroyed both mines and pumps. With silver at the present low price it does not justify the company to begin operations and replace the expensive machinery, but with remonetization of the white metal some developments to that end may be looked for, as the mines are yet but in their infancy.

The Grand Central Company of Youngstown, Ohio, controls valuable properties in this district. This company has produced dividends running into the six figures, and is one of the leading companies in the district. It owns the following mines, all well equipped with operating machinery and each of which has produced many thousands to the owners: The Grand Central, Emerald, Comet, State of Maine, Silver Thread, and other groups. It also owns a 35-stamp mill. None of the mines are being worked by the company at present.

Other mining companies in Tombstone district of note—all of which have steam hoists and own stamp mills—are the Sterling Silver Mine and Milling Company, Old Guard Company, and Watervale Mill and Mining Company. Many of the mines of the district not operated by the companies owning them are leased to chloriders, and royalty is paid by the latter on all ore extracted, and thus a number of miners are employed; the cyanide system of working low-grade ore is much in use, and has proven a success.

At Turquoise mining district several turquoise mines are in operation and producing handsome gems. Two companies of means are operating here, and their mines are proving dividend payers. Several silver mines are located in this district, the Turquoise Mining Company having a mill located near Soldier Hole.

In the Huachuca Mountains the Copper Glance Mining Company is continually working, being equipped with necessary machinery and making regular shipments of concentrates monthly. This is a good property, and is improving steadily, bringing handsome returns for its owners.

The Dos Cabezas gold district possesses many good properties, and is becoming an important factor in Cochise mining. The Cotton Wood Mining Company and Casey mining properties are two important mines in the district. Both companies own mills.

The Pierce mining district, a new gold discovery which recently sprung into prominence, is one that will command the attention of all on account of the immense showing of rich ore that has been brought to view, and from indications this camp will rival some of the best producers in the West. A village called Pittsburg has sprung into existence here, and with extensive work by some company on these properties the village will eventually bloom into a thriving city.

At Bisbee is the great copper camp. Cochise has one of the leading copper producing mines in the United States, if not in the world. The mines and smelters are worked day and night, and employ about 1,000 men. The immense bodies of ore yet untouched give assurance that this great producer will continue yielding copper bullion for a century to come. An idea of the immensity of the work and production of this great company can be better gained by the statement of the fact that the average daily product of the mine is nearly 37,000 pounds. The total production of the company to July, 1895, is 147,730,659 pounds.

The climate of Cochise County can not be surpassed. There is no better evidence of the virtue of the climate than the proverbial healthfulness of the people. Prehistoric ruins are to be found in different parts of the county, while Cochise Stronghold, the rendezvous of the famous Indian war chief of the Chiricahua Apaches, is here to be seen, a natural fortress, with scenery varied

and attractive. The Huachuca Mountains, Chiricahua, Mule, and other mountain ranges, are all easy of access to the lover of natural scenery, where may be found scenery unsurpassed by that of any other section of our Territory. Fort Huachuca, the principal military post in the Territory, is located in a most picturesque spot at the north end of the Huachuca Mountains, and commands a view of the surrounding country for miles.

The school census of the county shows that there are at present upward of 1,211 children of school age, with an average attendance of 94.2. There are eighteen schools within the county and twenty-six teachers. The average school term has been a little over six months. The teachers are among the best and brightest in the Territory, many of them being graduates from the schools in this county, and will compare favorably with those of other sections of the Territory. The following is the abstract of the assessment roll for the past year:

Description—	Number.	Value.	Value of improvements.	Total value.
Acres of land.....	10,011	\$ 42,725.50	\$ 17,920.00	\$ 60,645.50
Town and city lots..	1,039	93,932.50	407,248.75	501,231.25
Horses	2,875	41,338.00	.....	41,338.00
Mules	218	1,155.00	.....	1,155.00
Asses	52	340.00	.....	340.00
Cattle	52,162	358,964.00	.....	358,964.00
Sheep	5,620	7,740.00	.....	7,740.00
Goats	858	1,273.00	.....	1,273.00
Swine	237	684.00	.....	684.00
All other property .....	.....	394,258.89	.....	394,258.89
Miles of railroad	175.67	827,350.00	35,630.00	862,985.00
Total value of all property.....				\$2,230,609.64

There are some splendid agricultural lands in Cochise County. The Barbacomie ranch of 130,000 acres is located on the line of the Southern Pacific Company. It is one of the best watered tracts of land in Arizona, and is capable of supporting from 8,000 to 10,000 head of cattle if it were fenced in and the cattle of other ranges kept off. Barbacomie Creek runs through it, and carries water pretty much the entire year. The valley is beautifully situated between lofty mountains, and is green and fresh the year around. This fine tract of land is owned by Dr. Perrin, of San Francisco, the well-known capitalist, who also has some splendid sheep ranges in Yavapai and Coconino counties.

Squashes, pumpkins, melons, cucumbers and all kinds of vegetables are raised in abundance. Alfalfa and millet grow enormously, and can each be cut several times per year. The fruits and grains supply large crops.

The cities and villages of Cochise County num-

ber ten. viz.: Tombstone, Bisbee, Fairbank, Wilcox, Dos Cabezas, Bowie, Turquoise, Huachuca Siding, and Pittsburg. Saloon licenses number 34, restaurants 23, butchers 13, merchants 55. The newspapers of the county are generously supported, and do valuable work in calling attention to the resources of the county. Tombstone publishes the only daily paper in the county, the "Prospector." The Tombstone "Epitaph" and the Arizona "Kicker," at Wilcox, are published semiweekly, and the Sulphur Valley "News" and Wilcox "Stockman" are issued weekly.

Tombstone is the county seat of Cochise County, and the greatest mining center in the Territory. It is built on a mesa, which slopes from the line of the foothills of the Mule Mountains. The first house was built in April, 1879, and at one time the population numbered over 8,000. Today it has dropped to about 1,500, on account of the discontinuance of a great many of the mines.

Tombstone has thrived through all vicissitudes: Twice the scene of destructive conflagrations, the town rose each time in added strength. It now contains about 1,500 inhabitants, of a superior class, who, while waiting for a resumption of work upon the larger mines, manage to prosper under present conditions. There are a number of handsome buildings, the court house being especially notable, it being the finest structure of the kind in the Territory. There are also worthy of especial mention the city hall, public school, a commodious hotel, and several church structures. The Catholics, Methodists, Episcopalians and Baptists hold regular services. A number of secret societies are represented. The city has the best water system in the Territory, pure spring water being brought from the Huachuca Mountains, a distance of twenty-two miles, and delivered at the city hydrants under a pressure of 150 feet, sufficient to throw a stream over the top of the highest building in town.

There are two newspapers—the "Prospector," daily, and the "Epitaph," weekly—both ably conducted, and having satisfactory patronage. Here also is the county court house. The first house was built in 1879.

One of the most important points in the county is Bisbee, situated in a narrow canon in the Mule Mountains, about thirty miles north of Tombstone. Here are located the works of the Copper Queen mine, the greatest producer of that metal

in the Territory. The company keep four furnaces in almost constant operation; three of them are of the capacity of fifty-five tons each, and the other is a monster, capable of smelting 150 tons per day. The furnaces turn out daily between twenty-five and thirty tons of ore. The copper production for 1892 was not far from 12,000,000 pounds of bullion. The company has full charge of the townsite and has made of it the model camp of the Union. Sanitary measures are strictly enforced and careful attention given to the welfare of every employe of the great works. A hospital and a fine library and reading room are maintained by the company for the use of the men. A clergyman, who is regularly in the employ of the company, holds union services on Sunday, and attends to the moral welfare of the employes. The public school is in a commodious and well-appointed building provided by the company, which also liberally aids in defraying the annual expenditures for the school's maintenance. Three teachers are employed, the average attendance being over eighty pupils. The town has a population of about 1,500. It is built along the bottom of the narrow gorge, and has been subjected to several damaging floods. Drinking water is supplied by wagon from springs in the mountains. Water for irrigating is piped throughout the town from a tank upon the hillside, to which water from the mine is pumped. The secret societies embrace the Odd Fellows, Workmen, Patriotic Order Sons of America, Knights of Pythias, Grand Army of the Republic and a temperance organization, all apparently in a flourishing condition.

Fairbanks, at the junction of the Bisbee Railroad with the main Sonora line, is important only from that circumstance and from its position as the forwarding point to Tombstone, eight miles distant.

Benson is situated at the junction of the Southern Pacific Railroad with the Arizona & New Mexican Railway, and is about half a mile from the San Pedro River. It is built along the track of the Southern Pacific Railroad for about a quarter of a mile, and contains about 500 population. At one time, before the Sonora branch was built, Benson did a large business with Tombstone, for which it was the point of supply. In 1880 the Southern Pacific Railroad completed their road through, laid out a townsite and auctioned off a

number of lots at very good prices. At this time a great deal of freight was shipped from this point to Mexico and Tombstone, for both of which it was, necessarily, the shipping point. Times were then lively, money plentiful and business brisk. In the fall of 1881, the Atchison, Topeka & Santa Fe Company's road reached Benson, and they began building from that point to Guaymas, by way of Magdalena and Hermosillo, when, of course, business became even better than ever, and the town increased in size, population and wealth very rapidly. At this time a set of very rough and desperate characters, known as the "Top and Bottom Gang," made Benson their headquarters for about nine months, and ran things their own way during that time. The people finally concluded not to stand the thing any longer, and, rising as one man, they drove the crowd out of town. Since that time there has been no disturbance of any sort in Benson. It has grown and flourished, and to-day it is a model Western town. There is a good agricultural, mining and stock-raising country around it, and with the railway connections which it possesses, there is no reason why it should not become a large and prosperous city.

The thriving town of Wilcox is built on the line of the Southern Pacific Railroad, forty miles east of Benson, and twenty-four miles west of Bowie station. It is one of the principal towns of Cochise County, and is a distributing point and supply depot for many of the great cattle ranches which dot the valleys and ranges of Cochise and Graham counties, and the many mining districts which are increasing in size and importance all the time. There formerly were no less than five stage or freighters' lines, which left Wilcox two or three times per week, carrying a goodly number of passengers and immense quantities of freight. From this point all the coke used in the extensive copper mines of Globe was transferred into wagons which stood about fifteen or sixteen feet above the level of the street. About three of these wagons constituted a train, and it was an everyday sight for the good people of the town to see a long line of fourteen determined little mules start on their long, tedious journey of 140 miles across the plains.

Wilcox has several well-patronized mercantile establishments, a good hotel, a lumber yard, several shops, a Catholic and a Methodist church,

a public school with nearly 100-pupils, and here, also, is issued the "Southwestern Stockman."

Wilcox will some day be the center of a vast agricultural country, whose fertility and productiveness can be excelled nowhere in the Southwest. There are thousands upon thousands of acres of the richest kind of soil stretching out from Wilcox in every direction, awaiting only the magic touch of water to make it a perfect garden of vegetation.

There is an inexhaustible supply of the precious fluid underlying the entire Sulphur Spring Valley. Some time ago operations were begun upon a large well and reservoir. A splendid flow of water was encountered at a depth of about thirty feet. A No. 3 pump with a pipe of four and one-half inches discharge and a ten-horse power engine was placed in position, and for over a week the water flowed in the reservoir, which is 125 feet square, to the full capacity of the pump, which is 300 gallons a minute. A pump of three times the capacity was ordered to take its place. The location of the well is about two miles northwest of Wilcox in the direction of the Graham Mountains. The company was incorporated with a capital stock of \$5,000, and with W. F. Nichols as president. One of the best hotels in Cochise County is the Wilcox House, situated on the principal street of Wilcox, and directly across from the railroad depot. It is one of the largest and most substantial buildings in the town, being two stories in height.

Easily reached from Wilcox are Hooker's Hot Springs, which are attracting not a few invalids to experience the beneficial effects of the waters. Of these springs the "Southwestern Stockman" says:

"Though the springs are not as far-famed as the celebrated hot springs of Arkansas, we verily believe their waters possess medicinal qualities fully equal to those of Arkansas, and that will in time give them a reputation as wide-reaching. Hooker's Hot Springs are situated about thirty miles west of Wilcox, in Hot Springs Mountains, a southern continuation of the Galluria range, and the health-giving and health-restoring properties of the waters have been known in this section of Arizona for many years. So far as we are aware, no chemical analysis has ever been made of their waters, but magnesia and iron predominate in the waters of the hot springs, six in number. There

is also a cold sulphur spring in close proximity to one of the hot springs. The waters of the springs are especially efficacious in rheumatic and similar cases, and people who have gone there suffering great agony and almost entirely disabled from rheumatism have been restored to perfect health."

Teviston is in the northeast corner of the county, in the San Simon Valley. This valley is about sixty-five miles long, in Cochise County, and will average about twenty miles wide. At present about 500 acres are cultivated by the stockmen at their ranches, watered from San Simon Creek. At Teviston, Captain Tevis has an orchard of several acres, which is watered from the railroad well at Bowie station. Mr. Tevis has twenty-two varieties of fruits in this orchard, every one of which is flourishing well and bearing fruit. The trees have been planted eight years. Peaches, pears, plums, nectarines, apricots, mulberries, figs, cherries, quinces, a number of varieties of grapes, almonds and English walnuts, all are doing well. The San Simon Valley lies between Stein's Peak range of mountains and the Chiracahua Mountains, and in both of these ranges are deep canons suitable for the storage of water. The valley is covered with white and black gramma grasses, making excellent food for stock.

Turquoise, in the Turquoise mining district, in the Dragoon Mountains, is one of the most prosperous mining camps in Cochise County. The ores are principally silver.

About eighteen miles southeast of Bowie station is Fort Bowie, a military post embracing within its reservation the famous Apache Pass,

once dreaded by the emigrant over the southern route to California. The pass was abandoned for travel after the advent of the railroad. The post is well situated for heading off any Apache bands that may start on the warpath toward Mexico. The most important military post in Arizona is located in the southwestern part of the Territory, Fort Huachuca, in the mountains of the same name. It is situated amid lovely mountain scenery, and at an altitude that renders the summer climate delightful. The intention of the military authorities is to abolish all the smaller posts, now that their usefulness has gone with the subjugation of the hostile Indians of the Territory, and to concentrate the troops in large bodies at strategic points, easily accessible by railroad. In the sifting process, Forts Huachuca and Grant appear to be the only ones that will be left in Southern Arizona.

On the San Pedro, near the line of the Sonora Railroad, is the flourishing agricultural settlement of St. Davids, which supplies Tombstone and the surrounding camps with much of the vegetables, hay, etc., consumed by them. At Contention and Charleston, farther up the river, to the southward, are a number of milling and smelting plants, once used in reducing the ores of Tombstone district, but now idle. The San Pedro has its source in Mexico, and for its entire length, until it flows into the Gila, offers to the immigrant opportunities for the appropriation of excellent farming lands. There are in the Huachuca Mountains, the Santa Catalinas and the Chiricahuas extensive forests of pine timber, while oak, cedar and mesquite is abundant.



CHAPTER XVII.

COCONINO COUNTY.

Coconino County is next to the youngest in the Territory, having been created in 1893. It is one of the most important, in many respects, in Arizona. Several of its natural features are the most wonderful in the world. Its forests cover an immense scope of country and will prove of untold value to the future population. Its broad plains, whereon graze thousands of cattle and scores of thousands of sheep, are covered with natural grass and supply all the water that is necessary for stock. Its grain fields are constantly expanding, its orchards increasing and its mines are just beginning to show what stores of wealth they contain. Part of the Hualapai Indian Reservation joins the Grand Cañon on the northwest and parts of the Navajo and the Moqui Indian Reservation lie in the northeast. Several rich plains and valleys lie north of the Colorado.

The population* of this county is estimated in 1896 at about 5,000, based upon the great register, school census and other reliable sources. The taxable property according to the assessment of 1895 is as follows: Real property, \$1,164,439.53; personal property, \$935,016.14; total, \$2,099,455.67. It is estimated that the real value of all property in the county is \$5,000,000.

The following table shows assessment of Coconino County for 1895:

Description—	Number.	Value.	Value of improvements.	Total value.
Acres of land.....	597,547.19	\$229,260.04	\$ 78,387	\$ 307,647.04
Town and city lots..	3,084	132,602.49	185,890	318,492.49
Horses	5,460	110,070.00	.....	110,070.00
Asses	33	645.00	.....	645.00
Cattle	40,199	295,409.25	.....	295,409.25
Sheep	195,629	241,322.50	.....	241,322.50
Swine	124	613.00	.....	613.00
All other property..	.....	286,956.33	.....	286,956.33
Miles of railroad.....	116.66	538,300.00	.....	538,300.00
Total value of all property				\$2,099,455.67
Total assessment for 1894.....				1,945,560.68
Increase for the year				\$ 153,894.99

There is no way of ascertaining the exact area

*By Harold W. Roll, Flagstaff.

of land now under cultivation in this county, but it is estimated at about 4,000 acres. Irrigation is not carried on to any considerable extent in this county, and is chiefly confined to the settlement at Tuba City, a Mormon colony on the Little Colorado River, about 100 miles northeast of Flagstaff. There are many thousands of acres of fertile lands suitable for the agriculturist. These lands are mostly covered with a heavy, clear growth of pine timber, with frequent open valleys. The timber is free from underbrush, making it easy to clear the land for cultivation. The cereals—wheat, oats, barley—also potatoes of fine quality, yield large crops and find ready market. Potatoes yield four to six tons per acre, without irrigation.

Owing to the want of flouring mills grain is usually raised for hay, which in the local market sells readily at \$20 per ton. Stock raising is one of the main industries of the county. The above table shows the number of live stock and assessed values thereof, the real values being probably double the amount given. The school census of the county for 1895 shows 552 children of school age, divided among the school districts as follows: Flagstaff, 230; Williams, 168; Bellmont, 13; Frisco, 20; Tuba, 42; Fredonia, 62; Moen Ava, 17. The increase over 1894 was 83. Number of teachers employed in the county, 10; average school term, 9 months; average salary of teachers, about \$85 per month.

The Government lands of this country offer one of the best opportunities now open to the intelligent and industrious farmer to make a good home and profit by his labor. All farm products find a ready home market at prices that should prove very remunerative. Where wells can not be had and natural springs are not convenient the construction of cisterns would supply abundant water for domestic use. Within Coconino

County about 2,000,000 acres are covered with a dense clear growth of pine; the pine stumpage of Coconino County is estimated at 8,000,000,000 feet. The lumbering industry is therefore of great importance here, and gives employment to hundreds of men. Much of the timber land is yet public domain and open to settlement under the homestead act. In the northwestern part of the county the Government has set aside as a national park an area of about 2,893 square miles, known as the Grand Canyon Forest Reserve. The Colorado River flows through it, and it embraces the most striking features of the Grand Canyon.

Church denominations represented in the county at present are the Catholic, Presbyterian, Methodist Episcopal, and Mormon, the latter at Tuba City only. The three first named have substantial church edifices at Flagstaff; the Catholic and Methodist also at Williams. There are three newspapers in the county—the Flagstaff "Democrat" (Democratic), at Flagstaff, issued every Monday; the Coconino "Sun" (Republican), issued at Flagstaff every Thursday, and the Williams "News" (Republican), issued Saturdays at Williams.

The wonderful natural attractions—notably the world-renowned Grand Canyon of the Colorado River—in this county annually attract many tourists from all parts of the world. The ancient ruins of the cliff and cave dwellers, Montezuma's Well, the Natural Bridge, bottomless pits, and numerous other points of interest are within easy reach of the sightseer from the principal railway stations in the county. The climate of this county is healthy and invigorating, and the cool summer climate at this elevation (6,000 feet) is delightful.

The county is really rich in minerals, but as yet, for want of transportation facilities, there are no active mining operations. There are immense deposits of splendid coal; also black onyx, and in the Grand Canyon perhaps the richest copper deposits on the continent, as well as gold and silver. The beautiful Arizona sandstone quarried at Flagstaff is admired as the material of which many of the finest buildings in the large Western cities are constructed. This industry is an important one. There are at present in the county four hotels, besides a number of lodging and rooming houses, sixteen restaurants, and eighteen saloons or places where liquors are dispensed. The following are industries that could be established

with profit: A sanitarium, modernly equipped for the treatment of hay fever and lung diseases; a wool-scouring mill; a flouring mill on a small scale; a furniture factory; a brewery; a railway to the Grand Canyon and the coal fields.

One* of the greatest surprises of the Territory is the San Francisco Plateau—that gigantic whaleback humped above the general surface of the Mogollon water-shed in northern Arizona. It is as different from the rest of the system as hope from despair. On either hand the strenuous desert laps its side—on the east, the lofty barrens of the Painted Desert; on the west, the sunken aridities of the Mojave. Yet here, hemmed between these bare, thirsty lands, this vast swale rounds upward like a fertile island. Below it, on either side, the parched plains support no nobler timber than the sage-brush; but up here is the most splendid forest in Arizona—and one of the finest in the Southwest. Below are sands and heat; up here the breath of immemorial pines and the tang of breezes off the snow-peaks, and knee-high grasses, and glades and ponds, and—trout brooks! The sudden vision of this magnificent forest which looks down on either side to hundreds of treeless miles, is a matter not only for delight, but for thought.

* This great Arizona pine-belt, where the Atlantic & Pacific Railroad crosses it, is about sixty miles wide from east to west. North and south it is two hundred miles long. Fifty miles north of the railroad, the inconceivable chasm of the Grand Cañon of the Colorado chops it across, but does not terminate it. Fifty miles south of the railroad the tremendous Mogollon Escarpment (more popularly known as the "Rim Rock") dumps it over cyclopean cliffs into the edges of the Tonto Basin—beyond which it clammers up again to the Mazatzals and other ranges, dying out at last only where the great uplands dwindle away to the gaunt deserts below the Gila.

This belt is the Arizona divide, the culmination of the Mogollon water-shed, its average height being somewhere about 7,000 feet, while its sentinels, the noble San Francisco peaks, rise to nearly 13,000 feet—the highest mountains in Arizona.

Even in the Southwestern Wonderland this region stands unique—the most wonderful area in the United States. And its intellectual interest

*From the "Land of Sunshine."

is not greater than its physical charm. The very air of this great piney plateau is a revelation. Its scent is the scent of Maine forests; but there is a tonic in it that Maine never knew—nor any other land of humid skies. The altitude and the dryness of it give the atmosphere a quality which it is quite hopeless to try to explain to people who have never learned anything better than Adirondack air, for instance. One becomes a pulmonary epicure in it; the lungs reach greedily to get their fill of it, and the freshened blood tingles in every capillary. In winter there are great but not persistent snows, and the mercury has severe sinking-spells; but for a summer climate there is nothing in North America so exhilarant and so tonic as this—for here are the advantages not alone of altitude but of dryness.

Flagstaff, the principal town of this superb plateau, is 6,935 feet above the level of the sea; a wide-awake, prosperous American town, nestled among the stately pines at the foot of the San Francisco mountains, whose sharp, volcanic peaks, snow-crowned most of the year, have so much to do with redeeming this region from the desert which pinches it on either side. The location is ideally beautiful, with its vistas of Mt. Agassiz and his mates through the columnar pines which edge into the very town. Astonishingly healthful, steadily prosperous beyond almost any other town on the Atlantic & Pacific Railroad, backed by the practically inexhaustible wealth of its forests, and with so many of the natural attractions which make life worth living, there is no uncertainty about the future of Flagstaff. The town gets its rather peculiar name, by the way, from the fact that a government expedition, camping here on the Fourth of July, trimmed up a spar-like pine and floated Old Glory from its peak. Naturally the locality has been a marked spot since overland travel first began; for the footsore explorer, toiling across the deserts, would not soon forget this magnificent oasis. Frémont came this way—in fact, the Atlantic & Pacific Railroad largely follows the trail of the Pathfinder—and before him the hardy trappers, and after him the Argonauts steered their course for 200 miles by the San Francisco peaks. It is likely that Capt. Garcia Lopez de Cárdenas, Coronado's emissary, who discovered the Grand Cañon of the Colorado in 1540, came here with his twelve men; and that Antonio de Espejo did

in 1583. It is certain that Juan de Oñate, the founder of New Mexico, passed here in his tremendous march from Santa Fé to the Gulf of California in 1604-5, for his chronicler, Fray Zárate-Salmeron, describes the country of the pines unmistakably in his "Relaciones."

But all these things are of the past; and it is with the present and future that Flagstaff has the larger dealings. It is a modern American town, with the clear American eye to the main chance, and the sturdy American fists to win thither. And it holds the key to success by several doors. For one thing, it is destined to become an important point in the itineraries of intelligent tourists; not only as a charming summer resort, but as a center of some of the greatest scenic wonders of the world. Not only is it a natural approach to the Pine-creek Natural Bridge, "Montezuma's Castle," "Montezuma's Well," and other marvels of that region; not only does it command the wonders of Cataract Cañon and Walnut Creek Cañon with its cliff-dwellings, and an important group of cave-dwellings, but it is also the main entrance to that greatest thing in the world, the Grand Cañon of the Colorado. Add to this that it is a fine hunting country; that its air is so clear that it was chosen by Harvard College as the best point in the United States for a branch observatory; that its great mountain reservoirs guarantee an abundance of the purest water; that its forests, unmarred by underbrush, are one vast park in which one may ride everywhere—and you begin to know some of the attractions that will make Flagstaff a mecca of discerning travelers. In the fine cañon of Walnut Creek, an hour's ride from town, are hundreds of cliff-dweller ruins of the small house type, ranged like martins' nests along the shelves of the tortuous chasm which yawns suddenly in the floor-like plain. One can also drive from Flagstaff down into the picturesque Tonto Basin, descending by the cañon of Oak Creek, and visit the five-story cliff-dwellings of the Beaver-creek type. There is no other region in North America where such ancient and important ruins can be so easily reached from a railroad. And the strange little settlements of modern aborigines amid the wild beauties of Cataract Cañon are more interesting than anything most tourists see in a transcontinental journey.

The foremost material interest of Flagstaff is



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of course its vast lumber resources. Such an area of "four-to-the-thousand" pines means something in the bare Southwest; and Flagstaff commands the situation. The Arizona Lumber and Timber Company controls 871,000 acres of these forests. It owns five saw-mills, with an aggregate capacity of 385,000 feet of lumber in a 24-hour run; not to mention a 35-mile railroad of its own, buildings, stores and other properties. Its president is D. M. Riordan. In addition to its other industries, the Arizona Lumber and Timber Company has recently fitted a box factory and is manufacturing fruit boxes—which will supply the enormous California market. Notwithstanding the difficulties incident to the depression that has prevailed in this section during the past three years, the company has managed to keep going in good shape, and last year (1895) turned out about 18,000,000 feet of lumber.

One peculiar feature in the organization of this company is that every stockholder in it is an employe; that is to say, there are no investors connected with it except those who are actually concerned in it and bearing the heat and burden of its daily operations. With anything like reasonable prosperity in the region which it serves, this company expects to manufacture and to sell 2,000,000 feet of lumber during the present year (1896). During the year 1895, this company purchased the Central Arizona Railway Company's entire property, including rails, rolling stock, roadbed, franchises, etc., and is now operating it in connection with its lumber company.

Another important material wealth of Flagstaff is its immense deposits of a superb red sandstone, one of the handsomest and best building stones in the United States. Some of the finest buildings in Chicago are of this Flagstaff stone, which can be quarried in larger perfect blocks than perhaps any other.

A curious but important product just beginning to be known is the volcanic tufa, which makes the best of fire-brick. Light, yet resistant to pressure, so completely a non-conductor that you can heat one end of a brick of it red hot and hold the other end between your fingers, it seems destined to become an important factor in our architecture.

Flagstaff is the chief town and the county-seat of Coconino County. It has a population of about 1,500, and is an attractive-looking, as well as a

progressive, town. It has gas and electric light, a foundry, stores, bank (the Arizona Central), a good hotel, churches, schools, and fine public buildings. The court house, the school and the new Territorial Reform School (now being finished) would not be out of place in any city whatever.

A Summer School of Science will begin in Flagstaff July 1st, 1896. Departments in musical and dramatic art and natural history will be directed by eminent specialists. The Lowell Observatory will be occupied, and astronomical observations of practical value are hoped for. Competent instructors will teach in the various scientific lines, and class-work will be supplemented by a course of popular lectures. Arrangements are making for the accommodation of 500 students, and favorable railroad rates are expected. The double attraction of the School of Science and a few weeks amid these really magnificent surroundings will undoubtedly bring a large number of people to Flagstaff in the future. Flagstaff has all the furnitures of a wide-awake American town of its size. Indeed, a great many Eastern towns of 1,500 would be very much surprised to discover how many things which they have not are to be found in this place "on the frontier." The stores are particularly notable in such a comparison: the principal ones carrying such stocks as would make the New England village merchant gasp, and put some of his big-city cousins to the blush. The Babbett Bros., dealing in general merchandise, wholesale and retail, command an immense tributary country, and have, besides their fine store in Flagstaff, three trading-posts in the Navajo country. The Flagstaff Commercial Co. carries a large line in dry goods, clothing and groceries. Dr. D. J. Brannen, president of the Board of Trade, conducts an extensive drug business. From Flagstaff the Grand Cañon of the Colorado is reached by an easy and pleasant route. A daylight's drive through the noble pine woods brings the traveler to the brink of the matchless gorge. The probabilities are that a railroad will presently be built from Flagstaff to the Grand Cañon.

Flagstaff is also a heavy shipper of wool, the range being a favorite field for sheep men. The largest area of fine grazing-lands in the Territory is upon this plateau, and horned cattle are also an important factor. Mining is not yet

largely developed, but is to be counted in the assets of the region; for there are enormous mineral riches waiting to be taken from the walls of the Grand Cañon and its tributaries.

In 1890 there were shipped from Flagstaff 855 carloads of products, of which five carloads were vegetables, one horses, sixteen wool, eighteen merchandise, two hides, 312 stone, seventy-one cattle and 430 lumber. At the same time Belmont shipped hundreds of tons of ice and all stations sent wool, sheep and cattle. Williams alone sent out ninety-five carloads of cattle. At this time there were two weekly newspapers, three church organizations and two buildings, a reading-room and library, excellent schools, a militia company, hook and ladder company, five secret societies and many stores and shops.

Williams is situated in the western part of the county on the Atlantic & Pacific Railroad and stands 6,725 feet above the level of the sea. It is a flourishing little town of several hundred population and contains several substantial stores, two churches, a public school, a newspaper and takes its name from the mountain near it.

Of the various stock industries cattle rank first. They are found all over our county on almost every square mile. Our dry, pure, oxygenated atmosphere is conducive to the good health, not alone of man, but also of animal. There is here an utter and absolute lack of splenic fevers, pleuro-pneumonia, big-jaw, black-tongue, hoof-ail, black-leg, murrain, Texas fever or like diseases. In fact, there are no cattle diseases known here, and the stockman has only accidents to contend with. With any care or attention at all losses seldom go beyond 2 per cent, and very rarely reach 5 per cent. Careful estimates give the average increase at 33 1-3 per cent on the whole number of cattle, and no stockman who used care ever failed in the business. Yavapai cattlemen thoroughly believe and practice the county's motto, "Excelsior." They have here no bred-up Mexican stock, as in other counties, but started with good American cattle from the first. The famed dairy districts of Utah and California yielded tribute of their best blood to commence the industry. And even in their darkest days the cattlemen kept breeding up by importing thoroughbred stock. More blooded bulls have been bought for its ranges than in any other county, and everywhere the passer-by sees

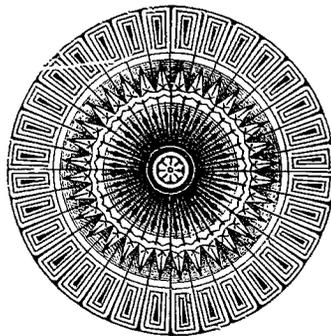
blooded Galloway, Aberdeen Angus, Polled Angus, Durham, Hereford and Jersey bulls flourishing and improving the coming cattle to a great degree. In fact, the only importations for some years have been blooded stock for breeding.

Horses rank third in value, as assessed, and are as widely distributed as cattle. Many ranches are distinctively horse ranches, and the owners are carefully breeding up with good blood on the hardy, earlier stock, producing an animal of great strength and endurance, and which is in demand by the United States Government for its needs in the Southwestern country. What has been said as to the healthful climate for cattle applies equally to the horse. Horses reach a high state of development here, and the best breeds flourish. Normans, Clydesdales and Percherons of straight pedigree have been brought in, and their progeny from the native stock bring \$200 to \$300 per head and weigh 1,400 to 1,500 pounds. And it can only be added that the horseman's prosperity measures with all others, and there is still abundance of room for more, with a steady and sure market for their increase.

But for a steady money-producer sheep are far in advance. When the "Little Corporal" turned his attention from east of France to Spain, in crossing the boundary Pyrenees, he found on either side the French and Spanish Merino sheep, developed to the highest type then known to the world. Careful herding from mountain to valley in winter and back to the rich mountain ranges for summer made these animals world-beaters. But in the plateau regions of Coconino are found better conditions even than the Pyrenees present, and taking their best blood, the citizens have improved upon it, producing here the finest all-around wool and mutton animal known to the world distinctively as the American Merino. Australia, which improved upon the French and Spanish Merinos, no longer goes to France and Spain for blooded breeding rams, but comes to America. Arizona wools, scoured, sell advantageously side by side with the best Ohio XXX wools, and the best Australian wools. The wools here have finer, stronger fibre and greater length of staple than any other known wools. One wool house has for nine years regularly purchased two clips from Coconino County as being the best wools they could obtain, even exceeding the Ohio and Australian wools. In Asia Minor, in

the days of the old Chaldeans, sheep first reached a high state of perfection; to have the honor of the highest known standard, constantly improved upon, go thence first to Spain, to Australia and now here. There are sheep in Coconino County whose pedigree traces back through Spain to the importations thence of the best Asiatic blood. With better climatic and food conditions, the sheep men here have improved upon the methods of the old Chaldean astronomers and have taught their sheep to rest by night and feed only by day. They are not mere graded Mexican sheep, but straight out American Merinos. In the beginning of the industry, from California were imported sheep that there competed on equal footing with Ohio and Australia. Here the same sheep have improved in every way. Arizona stands highest in amount of wool clipped per head, even as against the world. And as Coconino County has nearly half the sheep of the Territory, and the best sheep in the Territory, there is reason for pride. England's boasted open-wooled Cotswolds and Downs are excellent mutton sheep, but in their marshy climate, adapt-

ed to those breeds, Coconino Merinos could not flourish. The Merinos thrive best in dry, mountainous countries. Arizona sheep are freer from disease than anywhere else in the world, even though managed in a primitive way, with no sheltering or winter feeding. Dry alkali, salty, sandy and limestone soils are the sovereign remedy for foot-rot, a fatally destructive disease in many regions, and most legislated against. It is an infectious disease elsewhere, but sheep brought here affected with it not only recover without treatment, but do not infect other sheep. While scab elsewhere destroys the wool and kills the sheep, it is never fatal here, and only destroys the wool where no cure is given. It is the only ailment known here and yields readily to treatment. The loss of wool by scab is minimized to less than 1 per cent by the simple plan of "dipping" the flocks once a year. Fluke, or liver rot, being a damp-country disease, is utterly unknown here. Nor is the foot and mouth disease, which kills its millions elsewhere. With decent care 80 per cent on the ewe flocks is a low estimate of increase.



CHAPTER XVIII.

GILA COUNTY.

Gila County derives its name from the river which forms part of its southern boundary. It is centrally situated in the Territory and was formerly the home of the Apache Indians. It is the smallest county in the Territory, containing only 4,365 square miles. It is wonderfully rich in precious metals. It is rough and mountainous and is watered by the Gila and the Salt and their tributaries. Much of its best land lies in the San Carlos Indian Reservation. Several of the mountains are heavily timbered. It was formed originally in 1881, out of Maricopa and Pinal counties, and later 965 square miles from Yavapai were added to it.

*It is a compact mineral county, crossed in all directions by detached mountain spurs, while its rolling uplands are covered by a fine growth of grass. The Pinal Range, which crosses the county south and west, is heavily timbered, while the Sierra Ancha and the Mazatzal ranges on the north have a heavy growth of pine, oak and juniper. The Salt River flows through the northern portion of the county, where there are some flourishing agricultural settlements. The Gila River washes its southern border. Every mountain and peak is rich in minerals, and fine stock ranges are found in every direction, but the largest and best portions of its farming lands are within the San Carlos Reservation. The population of the county, estimated from the most reliable sources attainable in 1895, amounts to about 3,500.

The school census is as follows: School districts, 16; school teachers, 16; school children enrolled, 462; average number of months taught during the year, 8; average pay of teacher per month, \$70.

The Independent Order of Odd Fellows, Independent Order of Good Templars, Ancient Order of United Workmen, Knights of Pythias, and Masonic societies have flourishing lodges.

*By Hon. George W. P. Hunt, Globe.

The taxable wealth of the county from all sources for the year ending June 30, 1895, amounts to \$818,630. Wheat, barley, corn, and alfalfa are some of the leading agricultural products of the county, while in fruit growing and gardening it is able to show as fine products as are to be found in this or any other country. All these products find a ready market at home in the towns and mining camps. These industries are in their infancy, so to speak, but in the near future are destined to become of vast and permanent importance.

As yet there are only a few small irrigating canals in operation. No finer field for capital could be found in the Territory than is presented here in Gila County for enterprises of this kind. Reservoir sites are numerous on Salt and Gila rivers and in tributary streams flowing through narrow canyons.

Gila County abounds in natural wonders. In the northern part of the county is situated a natural bridge, spanning Pine Creek. In dimension and grandeur it by far exceeds the great Natural Bridge of Virginia. Under this bridge are numerous caves, some of them as yet unexplored. In this part of the county are also found many beautiful waterfalls and wonderful springs, some of them of sufficient capacity to drive the heaviest machinery.

On the San Carlos Reservation are some hot springs, believed by the Indians to possess wonderful curative properties. The climate can not be excelled, and sickness of any kind is the exception, not the rule. With the health-inspiring climate, splendid mountain scenery, wonderful natural objects of interest, and relics of a bygone race known as cliff dwellers, the beautiful mountain streams well stocked with trout and other fish, the mountains and valleys with an abundance of deer and other wild game, Gila County presents unrivaled attractions to the health seeker and summer tourist.

Globe, the principal town of the county, is the county seat. It is pleasantly situated among the rolling, grassy foothills of the Pinal Mountains. It has about fifteen mercantile houses, two hotels, restaurants, saloons, lumber and feed yards, blacksmith and wagon shops, secret societies, churches, schools, a newspaper—the "Silver Belt"—etc. The town sprang into existence after the rich mineral discoveries in 1876. It is the supply point for nearly the entire county, and has a population of about 1,500. Payson, in the northern part of the county, is a prosperous mining camp, and is also headquarters of a large cattle district. Nearly all orthodox creeds are represented in the county. Several have commodious church buildings.

The principal and most important industry of Gila County is mining, and from the south end of the county to its northern boundaries minerals abound. From the first discovery and opening the mines have been noted for their richness and variety. The pride of the county is the Globe mining district. Here are vast copper mines which have produced steadily for years, and their richness and quantity may be better understood when it is known that coke had to be hauled a distance of 150 miles from the railroad. The best producer has been the Globe mine, which has been worked steadily for the past ten years and produced 65,000,000 pounds of ingot copper direct from the furnace, 98.5 fine, valued at \$6,500,000. This output has been used mostly for casting purposes, and the principal part shipped to European markets. The present company expects to largely increase its output, and before long Gila County will take precedence in the exporting of copper from the Territory. The Bisbee Company also has extensive mining interests, and expects to commence operations as soon as the railroad reaches here. The northern portion of the county, near Payson, is a rich gold-producing section. Already three stamp mills have been erected, and the only thing that retards that section is its isolation.

The dawn of prosperity is not far off. The Globe, Gila Valley & Northern Railroad Company is now running from Wilcox, on the Southern Pacific Railroad, to Camp Thomas, 65 miles distant, and the completion of the road is assured early in the year of 1896. Then Gila County will rank as one of the richest of the Territory.

Gila County is the only county of Arizona which has no railway crossing its boundaries, and its progress has been further retarded by the White Mountain Indian Reservation, in whose borders are situated the San Carlos coal fields, the only deposit of that mineral in southern Arizona, and its early segregation by Congress has been anxiously awaited by the people of the county, for the opening and development of the coal industry is of great importance to the people of the Territory.

Next to the mining industry comes that of cattle raising. Nearly 20,000 head of cattle were sold off the ranges in 1895, bringing in a revenue of over \$200,000. Although the sales were large in 1895, the annual exports of cattle will always be considerable. Gila County has a glowing future, and her citizens will take rank with any in the Territory. Their industry and hospitality are proverbial, and the stranger traveling within her borders is struck by their kindness and generosity.

The history of Gila County, though it has not extended back so many years, is full of tales of adventure, of the daring deeds of adventurous pioneers, of desperate conflicts with the remorseless Apache, of exciting times with early mining camps, and of riches won and lost. One of the first expeditions to penetrate what is now Gila County was a force of seventeen miners from the Weaver placer diggings, under command of the celebrated King Woolsey. They were upon the trail of a band of thieving Yavapai Apaches, who had run off a number of their horses. Joined by a party of Maricopa Indians, about equal in number to their own force, they penetrated the wilderness of the Superstition Mountains to within a few miles of Globe. Here the little band met apparently the whole Apache nation, but succeeded in escaping, after sending a large number of the mountain redskins to the happy hunting grounds. It should be mentioned that the only reason why the south central portion of the Territory was never afflicted to any extent by Apaches was because of these same Maricopa Indians, hereditary foes of the Apaches, who, with the Pimas, ever kept the mountain marauders back to their native fastnesses. The Pinals and the Superstition Mountains were the scenes of nearly all the more important engagements between the soldiers and Indians. Many were the

battles and stern the fights before the fierce redskins acknowledged defeat and submitted to being placed upon reservations.

The agricultural lands of Gila County are quite limited in extent. In the San Carlos Reservation, which occupies nearly one-half of the County's area, are some good lands, minute portions of which are farmed by the Apaches. Twelve miles down Pinal Creek from Globe, at a point where there is water in the driest season, is what is known as Wheatfields. Here are several hundred acres of fertile, alluvial soil in the cañon bottom that are carefully tilled to crops of vegetables and hay. The land is, by reason of its limited extent and nearness to a profitable market, held at a very high valuation.

Climbing the "divide" on a steep, but otherwise excellent mountain road, the valley of the upper Salt River and lower Tonto Creek is presented to view, a magnificent prospect, indeed. Here, within sight from the "divide," lies nearly all the farming land of the County. From the mouth of Pinto Creek, into which the road descends by a circuitous sweep, to the box cañon of Salt River is about fifteen miles. In that distance, on either side of the river are appropriated and fenced probably 4,000 acres, of which about one-half is under cultivation to cereals. The population divide their attention between agriculture and stock raising. Armer is the postoffice. Barley is the principal product.

Tonto Creek joins its waters with those of Salt River, immediately above the box cañon. The valley of Tonto Creek is a broad one and is occupied along the stream for twenty miles by the ranches of cattlemen, who usually seek to raise but little beside hay.

These valleys, for a distance of sixteen miles up Salt River and ten miles up Tonto Creek, would be covered with water were the projected 200-foot dam placed at the head of Salt River cañon. The formation of such a great lake would be of real benefit to the County, the advantages of its possession far more than compensating for the amount of agricultural land that the waters would cover. These two streams carry an enormous amount of water in the spring, when the snows are melting in the lofty mountains at their sources, and the reservoir would never fail of more than filling at that season.

This section of the County is especially rich in

relics of the ancient races. Upon almost every hilltop there is a circular stone structure, usually of no considerable size, that seems to have been either a watch tower or a miniature temple, from the height of which the Toltecs caught the first rays of the sun—deified and personified by them as the supreme and guiding god-head of the universe. Upon a number of jutting cliffs are what were undeniably fortresses, built to overlook the valley below, with parapets of flat stone built high to the very edge of the chasm, and exterior defenses commanding all approaches. A short distance below Greenback Creek, on the mesa, is an immense ruin. The walls are yet standing to the height of perhaps eight feet, covered with debris. This structure was built, for the most part, of gypsum, a large deposit of which underlies the country in this neighborhood, cropping out where cut by the wash of the streams. Several old irrigating canals can be traced in the vicinity, which must have required no mean engineering skill in order to attain the top of the table lands. The pottery found is similar in appearance to that upon the ruins of the Salt River Valley, though perhaps not as well finished. All along the small streams of the vicinity are marked out in cobble-stones long stretches of connected enclosures that must have been rooms of Pueblo houses. Some of these houses are as long as half a mile, though but of little width. The soil accretions of centuries have been sufficient to cover these old dwellings, until now the sites are but slightly marked on the edges of the lower mesas.

The most interesting evidences of these ancient people are to be found a few miles south of Armer postoffice. Far up a narrow cañon, and reached only after an exhausting climb up its almost precipitous sides, are a number of cliff dwellings. They are all constructed after much the same plan. In the contact between a sandstone stratum and the more ancient formation that underlies it, several large caves have been left, somewhat of the shape of an open oyster shell. Across the wide mouth of each opening was built a high wall of cement and the interior was divided off into rooms by partitions of the same material. In the largest of the dwellings, a portion of the front wall had fallen, permitting ingress without much difficulty, but the manner in which its ancient inhabitants entered was, doubtless, by

means of a ladder up the face of a section of the cliff, perhaps twenty feet in height, to the floor level and then into the house from the top by means of another ladder. Surely, when the ladders were drawn up the houses were secure refuges from any foes of that day. Indeed, nothing short of a rifled cannon would prove effective against them even now. The largest cave is, approximately, 100 feet long, 40 feet deep and 20 feet in height, at the face. There are within about a dozen rooms, arranged upon three floors. The floors are made of neatly dressed cedar logs, crossed by giant cactus ribs, and upon these flags and a dressing of clay. The upper room was more in the nature of a gallery, as the front wall did not reach the roof by several feet. Some evil-disposed person, at a recent date, had set fire to the woodwork in one of the rooms, but the flames did not spread and were destructive only in that one apartment. In one of the ground-floor rooms, covered with dirt, was found a great quantity of corn cobs, though it is probable that they were left by Apaches, rather than by the prehistoric occupants. The woodwork is in excellent preservation. The conditions favorable to the preservation of all relics of the by-gone era could nowhere be more nearly perfect, for through all the ages, not a drop of moisture could touch the contents of the caves. It would seem probable that these caves were used simply as refuges by the people of the valleys, and that they were kept guarded and victualed in readiness for the coming of the foe.

The main highway of Gila County follows the course of Tonto Creek for about twenty-five miles. This valley is a beautiful one, flanked on the west by the lofty Mazatzals, the Four Peaks of which rise to a height that gives them prominence for hundreds of miles in every direction. On the east are the forest-crowned Sierra Anchas, and beyond the imposing rim of the Mogollons stands out in sharp relief. This rim is a continuous cliff that for over a hundred miles forms the boundary of the Mogollon group of mountains, and is a natural feature both strange and grand. About twenty miles from the mouth of Tonto Creek a road turns off to the left, leading to Phoenix by way of old Fort Reno and Fort McDowell.

In the hills to the east and northeast of the

course of Tonto Creek are a number of fertile valleys, small portions of which are tilled around the homes of resident cattlemen. In Greenback Valley there is a considerable expanse of agricultural land tilled for corn and hay. Pleasant Valley has been the scene of many troublous times in past days. It was on the route of many Indian raids, and stirring episodes of Apache battles are many. All these are now passed into history, and the valley is now remarkable only for its many natural beauties.

One of the greatest natural curiosities of the world is embraced within the section of mountain country lately set aside from Yavapai. The Natural Bridge of Pine Creek, an arch carved by the forces of nature in their grandest play, will yet be the Mecca of the tourist from every portion of the Union. It is situated about seven miles from the little settlement of Mazatzal City and about the same distance from the lumber camp of Pine. The bridge, though upon the grandest scale, is well hidden from view from nearly all points upon the hills above, and not until the stranger arrives at the lip of the deep gorge that lies concealed at the bottom of the valley does the vast cavern come to sight, with the stream rippling in its bed. The top of the bridge, about ten acres in extent, meets the hills on either side, and is being utilized by the owner of the property as a garden and orchard. The cavern below is in the shape of a bow, apparently supported by two grand arches that join in a mighty column on the convex side. From the bed of the boulder-strewn stream to the roof is about 160 feet; the arch will average 80 feet in width, and the length of the great tunnel is nearly 500 feet. The material of the bridge is limestone, which has been fluted and carved by the action of water into many grand and beautiful shapes. Nor is the grotesque missing, for the imaginative may see at every turn projections that are oddly suggestive of many forms of animal and vegetable life. Far up under the roof, reached by means of ladders, is a lengthy cave, leading far back under the western hill. There is, opening upon the lower cañon, almost below the upper wing of the bridge, a labyrinth of caves, which are almost as interesting as the bridge itself. The caves have not been thoroughly explored, but extend back thousands of feet.

CHAPTER XIX.

GRAHAM COUNTY.

Graham County is mountainous, with many rich valley and fertile tracts, among and near the foothills. Formerly Safford was the county seat, situated six miles down the valley from Solomonsville. It was settled in 1874. The first whites to locate in the county were the California volunteers at old Camp Goodwin, who employed their time conquering Cochise and his band of Chiricahua Apaches. The first real settlement was made in 1873 by immigrants seeking lands and mines. In the valley of the Gila they took farms, dug canals and made themselves homes. The rich mines at Clifton and Morenci were discovered by them and set in operation. In 1880 the Mormons from Utah came in and formed several settlements, dug canals and began developing. The county was not formed until 1881, when it was detached from Pima and Apache. It is said there was not a church in the county until after it was organized, when the Catholics established one each at Solomonsville, Thomas and Clifton. The population of the county is steadily increasing.

Graham County* lies in the southeastern part of the Territory. Its area is about 7,000 square miles. It is bounded by New Mexico on the east, Cochise County on the south, Pima, Pinal and Gila counties on the west, and Apache County on the north. The Gila River passes through the entire county from east to west, dividing it into nearly equal parts. It lies entirely in the region of the great plateau of the Rocky Mountains. The elevation is from 3,000 feet in the lowest valleys to 4,000 feet on the elevated tablelands and mountain valleys. The Pine lands, or Graham Range, crosses it from northwest to southeast. Mount Graham is 10,318 feet above the sea level; Mount Trumbull but little less. This range is fairly well timbered with pine, spruce, juniper

*By George H. Kelly, Solomonsville.

and fir, and a variety of hard woods. The Gila Range passes through the county to the north of the Graham Range and parallel to it. The latter has no timber worth mentioning, and is quite deficient in spring water. Grass abounds in all the mountains in moderate quantities, and is utilized by stockmen as a range for their herds.

Cattle raising has always been one of the principal industries of the county. Agriculture is now ahead, but there are probably 100,000 head of cattle yet on the ranges, the number having been greatly reduced during the past few years. For a limited number of cattle Graham County affords the best range in the Territory. Cattle support themselves, and with an average season they make the finest of beef. Where living water cannot be had it is furnished from wells, windmills supplying ample power for pumping at moderate cost. Cattle require but little attention on the range. Beef cattle are marketed in California, and those not suitable for beef are shipped to Kansas, Wyoming and Montana, where they are pastured and fed. Horses also do well on the ranges, and sheep raising is profitable, though but few have engaged in it.

In 1873 the first canals were dug and land cleared for farming in the Gila Valley. This valley is the second largest in Arizona, which has an ample supply of running water for irrigation, extending from a point nine miles above Solomonsville to San Carlos, a distance of some seventy miles. That part of the valley below Thomas, thirty miles in length, is on the San Carlos reservation, and is only cultivated in a crude way by Indians. Above Solomonsville the population is mostly Mexican, but the land is very fertile, and the crops of barley, corn, wheat, alfalfa, etc., are large.

The lands along the streams are alluvial bottoms, and very fertile. The mesas, or tablelands,



A. J. Doran

are good soil, but the running streams for irrigating them are lacking. The Gila Valley contains the largest body of land that can be irrigated from a running stream. It will average two miles in width in bottom land. The slightly elevated table-land extends from the bottoms from two to six miles to the high mountains. In time it is supposed much of these table-lands will be reached by an irrigating system, and prove them to be equally productive with the bottoms. Especially are they adapted to fruit culture, being in the thermal belt and less subject to late frosts. All the crops adapted to the temperate zone are grown here to perfection.

The opportunities and conditions are excellent here for an irrigation enterprise. The work would consist of a large canal from the Gila, at a point where it comes through a box canyon with a solid rock bottom, building storage reservoirs for holding surplus water to be used during low water in the river. By this much of the mesa lands would be reclaimed, and at least 75,000 acres of new land could be brought into cultivation.

The population of Graham County on June 30, 1895, on a close estimate from the great register and school census, is not less than 8,500, and it is gradually increasing, many recent comers being of a desirable class. The total amount of taxable property—real, personal and mixed—is \$1,833,666.54, an increase of \$275,000 over last year. The actual value of the property, if all listed, would not fall below \$3,000,000.

The amount of land actually in cultivation now would likely not exceed 15,000 acres. About 1,000 acres of new land was cultivated for the first time in 1895. The amount of land under canals is estimated at not less than 35,000 acres; all this land is either patented or occupied by settlers under the homestead laws. Every acre of this land could be irrigated by the waters of the Gila River, and the supply would be ample for a crop of wheat, barley, oats, etc. With water storage—the opportunities for which are many and favorable—50,000 acres more of rich and fertile land could be reclaimed on the mesas that border the Gila Valley.

The principal canals in the Gila Valley in Graham County are the San Jose, Montezuma, Union, Central, Maxey and Oregon, though there are a great many smaller ones, under all

of which agriculture is making good progress and the farmers gradually making comfortable and prosperous homes. The following is a list of canals and ditches, their length, and the amount of land lying under them:

Name.	Length. Miles.	Land supplied. Acres.
Brown ditch	1½	500
Sanchez ditch	4	500
Fourness ditch	2	480
Mejia ditch	4½	600
San Jose Canal	7	4,000
Michelena ditch	4	600
Montezuma Canal	9½	4,000
Union Canal	11	4,500
Sunflower Canal	3	600
Graham Canal	5	2,000
Central Canal	9	4,000
Oregon Canal	7	2,500
Mathews Canal	5	2,000
Curtis Canal	6	2,000
Kempton Canal	4	600
Maxey Canal	11	5,000
Fort Thomas Canal	2½	1,500
Thompson ditch	3	800
Duncan Canals (2).....	7	2,500
Total	108	38,680

New canals were constructed in the county during the year 1895 in the vicinity of Fort Thomas, as follows: By Thompson Bros., canal 1½ miles long, which will irrigate 240 acres; by George F. Kilmer and others, 1½ miles long, covering 320 acres; by Ratcliff & Southlee, 4 miles long, covering 640 acres; by J. H. Thompson, 2½ miles long, covering 320 acres. In the vicinity of Duncan a new canal was begun by Ben Echols and others, which, when completed, will be 7 miles long, and will reclaim about 1,500 acres of rich land. The Montezuma and Union canals are the largest, and are about 12 feet wide on the bottom. These canals are all owned by farmers who own the lands under them. The owners usually incorporate themselves into stock companies, as they find it much easier to manage their affairs that way. The cost of maintaining the canals varies according to the amount of flood waters coming down from the mountains, but the cost of water to those owning rights in the canals will not exceed 75 cents per acre in

any year, and the average is less than 50 cents per acre. Alfalfa is about the only hay crop raised. It is very profitable. It is cut five and six times a year, and yields about $1\frac{1}{2}$ tons to the acre at each cutting. The price ranges from \$5 to \$10 per ton. Much wild hay is also cut on the ranges during rainy seasons. This wild hay is first-class, and is received at the Government military posts.

No reservoirs are being constructed as yet, but the inducements for such enterprise are most inviting to capital. For eight months in the year the water supply in the river is abundant to irrigate all the desirable lands that could be covered by it, and will furnish a surplus for storage sufficient to guarantee the farmer against drought at all seasons. No effort has ever been made in this county to secure artesian water.

The products here, in addition to alfalfa hay, are corn, wheat, barley, oats, beans, chili, onions, potatoes, and all the vegetables; also fruits and berries, except the tropical. It is too cold here for oranges, lemons, or even figs. The hardiest fruits, apples, pears, plums, etc., are found to be the most profitable and certain. Apricots and early peaches are not a certain crop, owing to the late frosts in the spring. There is no means of making correct estimate of the number of acres planted to fruit, but a conservative guess would place it at 1,500 acres. By the assessment rolls it is found that there are now in Graham County:

	Number.	Value.	Increase During Year.	
			Number.	Value.
Cattle	67,992	\$510,413	18,986	\$156,628
Horses	3,813	101,183	2,648	57,597
Swine	787	2,458	218	754
Goats	1,344	1,888	619	1,103

The stock in this county is good quality, and the real value would, on all except cattle, be one-third more than the assessed value. Cattle on the range are assessed for their worth, but there are probably 50 per cent more cattle in the county than appear on the assessment roll.

The principal mining industry in this county is carried on at Clifton and Morenci, and there are no others in actual operation worthy of mention, though it is believed that with development work the mines of the Lone Star, Clark and Aravaipa districts would prove to be rich in gold, silver, copper and lead. The works of the Ari-

zona Copper Company are situated on the San Francisco River, at Clifton, and the mines are from four to nine miles distant. An elaborate system of mining tramways and gravity inclines connects the mines with the metallurgical plant, three locomotives being constantly employed in feeding the plant with raw ores and transporting the coke, merchandise, and copper of the Detroit Copper Company. The principal mines are the Longfellow, Detroit, Joy and Metcalf. Of these, the Longfellow is the most famous, having been a steady producer for over eighteen years. The more profitable ores occur in a lime and porphyry contact. This company gives employment to 600 men. It pays out in wages over \$400,000 annually. It treats 170 tons of ore per day, and is producing 340 tons of copper per month; it pays about one-fifth of the entire taxes of the county, \$12,000 a year. Two years ago this company added to its plant for the treatment of its low-grade ores a sulphuric acid works, with a capacity of ten tons of strongest sulphuric acid per day, this being the first of its kind in the country. A leaching plant, equipped with lead-lined pipes and tanks and the latest improvements, with a capacity of 100 tons low-grade ore per day, is also in successful operation and yielding 120 tons of copper per month.

The Arizona & New Mexico Railroad belongs to the same company, and runs from Clifton to Lordsburg, on the Southern Pacific Railroad, a distance of seventy-one miles, forty-one miles being in Graham County. It is a narrow gauge, and is used exclusively in the work of the copper camp. It gives employment to seventy men. Without this road it would be impossible for the copper mines to continue operations.

The Detroit Copper Company has a plant consisting of four blast furnaces, with a capacity of 220 tons per day; also a concentrating mill of 100 tons capacity. The plant and pipes are all located at Morenci. The water supply is pumped from the Gila River, a distance of seven miles. The Detroit Copper Company has been a steady producer for ten or twelve years.

The elevation of the Gila Valley in Graham County is about 3,000 feet; the climate is not so warm as the other large valleys in Arizona, which are much lower. In hottest summer the mercury rarely reaches more than 100, and 105 is about the limit. In winter snow not infrequently covers

the ground, though it quickly disappears. The nights in summer are always cool.

Within eighteen miles, which can be reached by wagon from the valley in six hours, are some of the most charming summer resorts to be found in the Southwest, beautiful locations nestled in the rugged sides of the Graham Mountains, where the whole country is covered with a luxurious growth of fern, grass, pine, oak, juniper and fir timber, with cold spring water. Several primitive summer resorts have been established in the mountains, the principal one being Camp Arcadia, sixteen miles south of Solomonsville, and reached by a good wagon road.

On the mesas and in the valleys are found the remains and implements of prehistoric man, and old cities of large size can be traced by foundation stones in many localities. On Bonita Creek and in the Aravaipa Canyon can also be seen the remains of the homes of the cliff dwellers.

There are twenty-five schools maintained in Graham County, taught by twenty-five teachers. The total number of children in attendance last year was 775; total number of school census children, 2,166. The average length of school term in the county is six months; average salary paid teachers, \$56.60.

There are five churches in the county, three Catholic and two Methodist. The press is represented by the "Graham County Bulletin," established in 1882. It is published at Solomonsville and is Democratic in politics. The "Graham Guardian" was established at Safford in February, 1895, and could be classed only with the Silver party in politics. There are thirty-one saloons and fourteen restaurants in the county.

The towns in the county are Solomonsville, the county-seat; Safford, Thatcher, Central, Pima and Fort Thomas, in the main part of the Gila Valley. Clifton and Morenci are thriving mining towns, and Duncan is situated on the Gila River, some fifty miles above Solomonsville. Solomonsville and Safford are the largest towns in the valley, and both are growing, though Clifton is the most flourishing in the county. The undeveloped resources in the county are to be found in the mineral, agricultural and timber industries. Immense forests of excellent pine

timber are to be found in the Graham Mountains. It is believed that a bank would pay well at Solomonsville, the county seat. A fruit canning establishment is badly needed in the valley.

During the past year the Gila Valley, Globe & Northern Railroad has been completed through the county as far as Fort Thomas. It enters the Gila Valley at Solomonsville, the county seat, and follows the valley to Fort Thomas, a distance of twenty-eight miles. It is understood that work will be resumed soon, and the road constructed to Globe, a thriving mining camp seventy miles beyond Fort Thomas.

Two new roller flouring mills were built in the valley during the year and another is nearing completion. The combined capacity of these mills will be about 20,000 pounds of flour daily.

On the Gila River, commencing at the eastern boundary line, is Duncan, on the Arizona & New Mexico Railroad, the center of a small population of farmers and stock raisers. Twenty-six miles down the river is Solomonsville, the county seat, which has the only newspaper and two schools. Five miles further is Safford, where are the only flour mills in the county—one run by water power and one by steam. There are two schools here. Three miles further is Thatcher, where is located St. Joseph Academy, maintained by the Mormon organization, and a good district school besides. Two miles from there to Central, and three miles more to Pima, where the Mormons made their first settlement and opened up the Wilderness at the mouth of Ash Creek. Here are three schools. Thomas is the next place, thirteen miles from Pima. Here was Fort Thomas, which was broken up by the government and the troops and supplies moved to San Carlos. The Indian Reservation commences here and covers all the River Valley to San Carlos—about forty-two miles. So no farming or settlement is found here except by the Indians. All of the towns are supported by agriculture. In the northern part of the county are the mining towns of Clifton and Morenci, both of which have good schools. There are several churches in the county. There is a large Mexican population, which is industrious, and furnishes an important part of the laborers on the farms and in the mines.

CHAPTER XX.

MARICOPA COUNTY.

Maricopa County has an L-shaped area in the southern-central part of the Territory, and was created in 1871 out of Yavapai. Since that date, slices have been cut from it to form parts of Pinal, in 1875, and Gila, in 1881.

In its topography the county is, for much of its area, mapped out as a plain, sloping toward the Salt and Gila rivers. This great plain is broken by numbers of short mountain ranges and detached buttes. On the north the beginning of the high plateau of Northern Arizona is marked by the outlying mountains of the Bradshaw range and by the Cave Creek hills. On the east, beyond the line of the Verde River, rise the rugged Superstition Mountains and the lofty Mazatzals. Through the center of the county flows the Salt River, mingling its flood with that of the Gila about twenty-five miles southwest of Phoenix. The two valleys are continuous, and in them, watered by the two streams, lies nearly all the agricultural land of the county. It is claimed that out of a total acreage of about 5,986,500 acres there are 3,000,000 that can be reclaimed by irrigation by reservoirs, canals, etc.

However blessed with capabilities in other directions, the tilling of the soil is, and ever will be, the foremost industry of Maricopa County. The fame of the marvelous Salt River Valley is extending to every portion of the Union, and year by year advancement goes on at a rate that will soon make of this region the garden spot of the world.

The valley of the Salt River contains one of the largest bodies of irrigable land in the United States—over one million acres. Its surface is almost as level as a table. It is walled in by rugged mountain ranges and is watered by Salt River, which flows through its center.

This magnificent vale has been exceptionally

blessed by the bounteous gifts of nature. The soil is one of the richest to be found in the United States. Near the river it is, in places, a dark alluvial mold, well adapted for the production of cereals and grasses. Further back it is a rich loam of extreme fertility, while nearer to the foot-hills the soil has something of a lighter and more porous character, being especially adapted to the cultivation of every variety of fruit. It has been demonstrated that this rich and productive soil has a depth of from ten to forty feet throughout the entire valley, and although portions of it have been cultivated in the same crop for twenty-one years, there is no diminution in the yield or exhaustion of its durable fertility. The water used for irrigation constantly gives new life to the land.

All things grown in the temperate zone and semi-tropical climates are the productions of this fine valley. All of the cereals and grasses indigenous to the temperate zone; every fruit that ripens under semi-tropic suns! Among the fruits produced in the Salt River Valley are the following: Oranges, lemons, quinces, apples, pears, nectarines, peaches, apricots, olives, almonds, strawberries, grapes, figs, plums, dates. Of cereals and grasses, the valley produces wheat, oats, barley, rye, corn, buckwheat, cotton, tobacco, broom corn, hemp, flax, sugar-cane, alfalfa, blue grass, millet, timothy and clover. Besides the foregoing, vegetables of every kind give a most prolific yield.

Two to five crops a year can be produced in the valley, and so rapid is the growth that the labor of the cultivator is reduced to a minimum. The planting season begins on the first day of November, and the grain harvest is ended by the first of July. The climate, it must be remembered, is almost perpetual spring and summer;

snow never falls, and frost is rarely seen. Roses are in bloom, fruit trees are blossoming and the grain fields are a sea of green, when the lands of the Eastern farmer are covered with ice and snow. Sugar-cane and the cotton plant seem indigenous to the Salt River Valley.

One of the most valuable productions of the Salt River Valley is the forage plant known as alfalfa, or Chilean clover. In the warm, dry climate of this region its yield is somewhat phenomenal. It is cut from four to five times a year, yielding on the average two tons per acre to the cutting. Whether cured as hay, or in its green state, it is unexcelled as feed for horses, cattle and hogs and other live-stock, its fattening qualities not being equaled by any cultivated grass or known forage plant.

Horses, cattle and hogs find a genial home in the rich alfalfa pastures of the valley. Summer and winter, autumn and spring, they crop the nutritious feed, or rest contentedly in the shade of the leafy cottonwood. In a region like this, where men go about their daily avocations in their shirt sleeves during the entire winter, the housing of cattle is entirely unknown. Hogs run on the alfalfa fields until the harvest is over, when they are turned on the stubble, which in a short time puts them in prime condition for market. Beef fattened on the alfalfa pastures is tender and juicy, and is almost equal to the stall-fed article of the Eastern States. California receives a large portion of its beef supply from this region, and many thousand head of cattle are annually shipped to Kansas City, Missouri.

When the stock-grower has fenced a tract of land, planted it in alfalfa, and set out cottonwood shade trees, his labors are nearly at an end, and his expenses become merely nominal. Cattle that are pastured on the green fields six to eight weeks are ready for the butcher at all seasons. Each acre of alfalfa properly cared for will support two head of cattle or horses, or twenty head of hogs during the entire year.

Within the past six years some of the purest breeds of the equine race have been imported from the far-famed blue grass region of Kentucky and other sections of country, and to-day the City of Phoenix and the surrounding country can show as fine a breed of horse flesh as any place of like population in the Union. The soil, climate and feed are all that could be desired,

and the valley will yet become famous for its fast stock. Horses and cattle three years of age have attained their full growth. The natural stock ranges throughout the Territory have been so heavily stocked for a number of years that they can no longer turn off cattle fit for beef, hence the cattlemen rely entirely upon the alfalfa fields of this valley to put their cattle in condition for market.

While capable of an almost unlimited variety of productions, it is in the cultivation of fruits that this valley must look for its greatest prosperity. With the exception of some favored spots in California there is not a region between the Atlantic and the Pacific that possesses so many natural advantages for the prosecution of this industry. Shut out from the fogs and mist of the sea coast, its pure, dry atmosphere has all the desirable qualities for the growing, ripening and curing of high-priced semi-tropical fruits. The soil is natural fruit land, and has all those ingredients requisite for its production. Owing to the more rapid growth of vegetation, the fruits of the Salt River Valley are ripe and ready for market from two to four weeks earlier than those of California. This gives the Arizona producer an immense advantage over his competitor of the Golden State, and enables him to dispose of his entire crop free from competition. It may appear like sending coals to Newcastle, but it is a fact that the Salt River Valley has for several seasons past shipped apricots to Los Angeles a month before they were ripe in that city. Of this the Los Angeles "Times" speaks as follows: "Prophet Potts left at the 'Times' sanctum yesterday a little box of ripe apricots. They are a full month earlier than those which ripen here, and were grown in the Salt River Valley, near Phoenix, Arizona. * * * The prospects, in view of the Salt River Valley development, are that Arizona will some day send back a Roland for our Oliver, supplying this section with early high-priced fruits."

The yield is something unprecedented. The fig gives two and sometimes three crops a year. This tree, whose cultivation is successful in so few places in the United States, thrives wonderfully here, and grows almost as strong and vigorously as the native cottonwood. Cuttings set out have borne fruit within three months, the fruit being large, rich and luscious. The White Adriatic variety is the most popular, and is as

much at home as on the hills of its native Dalmatia. Figs grown and packed here have been pronounced by experts in the eastern markets to be most perfect; equal in every respect to those grown in Smyrna. There are but very few places in the world where the fig of commerce is successfully produced; and the perfect success attained here in its production will render this valley famous throughout the civilized world. It is destined to be one of our principal and most profitable industries. It is a much more profitable crop than the orange. The largest fig orchards in the United States are in this valley.

Phoenix dried figs won a first premium at the recent Mechanics' Fair in San Francisco, and Arizona raisins have been received with strong commendations whenever exhibited. This is really the first year that an effort has been made to pack either figs or raisins in first-class marketable shape, and the result has been gratifying and profitable to the packers.

No spot on the Pacific coast is better adapted to the cultivation of the grape. Cuttings will bear in eighteen months, and two crops a year from the same vines is a common occurrence. The yield of vines in full bearing is from four to eight tons per acre. The chief varieties planted thus far are the Muscat of Alexandria, Zinfandel, Sultana and Tokay; all other varieties, however, do equally as well. The attention of experienced fruit growers in California has recently been attracted to the great natural advantages of this valley for the production of the raisin grape. Few places in the world are found adapted to its successful culture. The drying and curing of the fruit requires, above all else, a warm, dry climate, which this valley possesses to a perfect degree. If the reader will consider that fully 50 per cent of all the raisins consumed in the United States are imported, he will understand what the profits must amount to when they are produced at home.

Oranges have not yet been extensively planted in the valley, yet we now have about two hundred acres in perfect condition in their second and third year, which demonstrates beyond a question of doubt that they can be successfully grown here.

Irrigation brings life and verdure and beauty and productiveness to plant and tree and shrub and flower. By its agency the barren desert is

made to blossom and yield its wealth of grains and grasses and fruits; it makes of the desolate and worthless plain a blooming garden; it brings value to the land formerly given over to the cactus and coyote. Like the magic wand of Moses, it causes the life-preserving streams to come forth, carrying in their wake wealth and lasting prosperity. To Arizona irrigation is what the life-blood is to man, or the piston-rod is to the steam engine. The farmer and the horticulturalist must rely entirely upon it for success, and upon its proper application to the thirsty soil depends the future tillage in this Territory. To the Eastern agriculturalist, where such a system of cultivation is unknown, the term carries a vague and indefinite meaning. A few words descriptive of this method of tilling the ground may not prove uninteresting.

Irrigation is the oldest system of cultivation known to man. In those Eastern lands which were the cradle of the Aryan race, it was practiced long before the dawn of history. The mighty empires of antiquity which flourished in Asia and Africa depended almost entirely upon irrigation for the production of crops. Canals and waterways made of the now desolate Syria, Mesopotamia, Asia Minor and Persia, the garden spots of the ancient world; and to-day nearly all of the Levantine countries owe their prosperity to the same system. More than two-thirds of the human family have pursued this mode from time immemorial, and will continue to do so as long as the present climatic conditions remain unchanged.

Briefly, irrigation is the artificial application of water to the soil. Canals and ditches divert the water from the river-bed and convey it to the land which it is desired to irrigate; lateral ditches run from the main canal, carrying the precious fluid to all parts of the cultivated area. Sometimes the entire field is flooded to a certain depth, which is usually the manner of irrigating grains and grasses, but for fruit small ditches are opened near the trees and vines, through which the water runs and soaks to the roots. When the orchard, the vineyard or the field requires moisture, the cultivator has but to open the gate in the side of the main ditch and conduct the water to the desired spot, and after thorough saturation the gate is again closed. It has been well said, the irrigator is independent of the clouds and can sup-

ply his field whenever and as often as they may require.

Irrigation is the most perfect method known to men, and the land so cultivated commands the highest price the world over. The delta of the Nile, the plains of Lombardy and Castile and the valleys of Southern California bear testimony to this fact. The process is one easily mastered, and for the extra labor expended the return is five-fold. Improved land with water rights can be bought at \$25 to \$50 per acre.

As in the case in Yuma County, there are thousands of acres of mesa lands, unexcelled in quality, that could be cultivated was there a constant summer supply of water in the river. During months of June, July and August the river carries little more than enough to irrigate the lands already under ditches. In view of the reclamation of these outlying lands, a survey was ordered by the Board of Supervisors, with a view to locating suitable sites for water storage dams. A number of good locations were found, but none that could approach a site at the head of Salt River Canon, just below the mouth of Tonto Creek, almost exactly on the line between Gila and Maricopa counties.

Here the gorge is only about 200 feet wide, and a dam 200 feet high would form a V-shaped lake in Gila County, twenty-six miles long by an average of two miles wide. The immensity of such a body of water can scarcely be comprehended, and it is possible a dam one-half the height would impound more than enough water for all possible necessities. However vast such a reservoir might be considered, it would be the work of but a short time for the streams above to fill it at the time of melting snows in the spring.

In 1868, Jack Swilling, a famous frontiersman of the time, left the Weaver placer mines in what is now Yavapai County, where he had come several years before with a resolute and historic party of miners and pioneers, and at the head of a small party of settlers located on a farm a few miles east of where Phoenix now stands. They had come prepared to take steps to irrigate their farms at once, and accordingly excavated a ditch so as to bring the waters of Salt River to their claims. This was probably the first permanent settlement in the county. This nucleus grew so rapidly as to necessitate the formation of the

county of Maricopa three years later out of the southern part of Yavapai.

Wickenburg, named for Henry Wickenburg, was established about 1863, when the famous Vulture mine there was discovered. Four years later it had a population of 1,200, and was a typical and wild mining town. But there were no grist mills, and Jack Swilling and others began to look around to see if one could not be located near. J. Y. T. Smith then had the Government hay contract at Fort McDowell, and had a hay station on Salt River, four miles from the site of Phoenix. In September, 1867, Swilling visited this station, and noticed that the lay of the land would permit bringing thereon from the river a large quantity of water. He went back to Wickenburg, organized the Swilling Irrigating Canal Company, with a capital of \$10,000, and all came on, and the first settlement was accomplished. Henry Wickenburg, Darrell Dupper, John Lawson and others accompanied Swilling. They had an eight-mule team loaded with tools and provisions, and upon their arrival commenced work nearly opposite the present site of Tempe, but later found they had miscalculated, and accordingly began farther down the river, near the Smith hay station. Success crowned their efforts, and a good crop in 1868 rewarded them.

In 1868, C. H. Gray, the Starar brothers, Mr. Underwood, John Ammerman and others settled a little farther down the river, and opened the Dutch Ditch. Sawyer, Dennis, Murphy, Mowry and others became settlers here in 1868 or 1869. Near Phoenix, James Murphy started a little store. Jack Swilling's house, near where the Swilling and the Dutch canals met, was the first in the valley, and was erected in the fall of 1868. He was open hearted, and may almost be said to have kept open house for everybody. In 1869, Sawyer started the Griffin ditch. M. P. Griffin joined him. The Prescott ditch was begun in 1870. W. B. Hellings built his flouring mill in 1869-70. By this time there were many settlers in the valley. Flour was worth \$10 per cwt. in gold. W. A. Hancock opened a small store near Swilling's, and Major McKinney a little saloon, the first in the valley, about a mile east of Phoenix.

A town began to be talked of. At last a mass meeting of citizens, which met at the house of Mr. Moore, appointed a committee to select a

location. They were Moore, Griffin and Dupper, and they selected the present site, and suggested the name Phoenix, upon the recommendation of Dupper, as the new town would spring from the ruins (not ashes) of the old Aztec, or Toltec, civilization lying everywhere around. The Salt River Valley Town Association was organized, at the head of which were James Murphy, J. T. Ferry and J. T. Alsop, commissioners. The articles of the association were signed by the following citizens: W. B. Hellings & Co., Barnett & Block, Darrell Dupper, James Murphy, J. T. Dennis, Thomas Barnum, James W. Buck, W. A. Holmes, J. T. Alsop, Jacob Starar, J. P. Perry, E. Irvine, M. P. Griffin, C. H. Gray, C. C. McDermott, James McElliott, W. R. McConnell, Andrew Starar, J. P. Osborne, J. D. Monihan, Paul Becker and Daniel Twomley. It was not until 1874 that a patent to the town site was received from the United States Government. The first lot was bought for \$104 by Judge Berry, of Prescott. It is now under the Irvine building. The first house on the town site was a small adobe structure on Washington street, near Montezuma. It was the first court room, justice office, and, in fact, nearly all the county officers carried on their business affairs here. The Board of County Supervisors held their sessions in this adobe building. Houses then went up very rapidly. Early in 1871, the county court house was built. William Smith opened the first store, and Dennis & Murphy the second. The first school opened in 1871.

Phoenix was laid out into lots in 1870, and in December of that year a few were sold. The following year when the county was created, this town was selected as the county seat, and immediately began to grow. It was in the year 1871 that a few choice spirits gathered together on the spot where the city of Phoenix now stands, and laid the foundation of a city that will some day take rank as one of the richest and most populous living centers on the continent. They probably built "wiser than they knew," but are, nevertheless, entitled to all the credit and honor that is justly due them. Among the little band were J. T. Alsop, W. A. Hancock, "Lord" Darrell Dupper and the noted Jack Swilling. The original townsite embraced only a half section of land, but the village of Phoenix has long since grown out of its swaddling clothes, and is, to-day, the

richest and most enterprising city in the Southwest.

At the close of the second year after its location, the city contained a population of about 500, during which time about two hundred houses were erected. But, from 1873 to 1876, it grew very slowly on account of the fierce, warlike bands of Indians that everywhere infested the surrounding hills and mountains of this valley. On the concluding of the peace that General Crook made with the various bands of Apaches in 1876, and which led to their removal from the whole of this section of Arizona, this city again began to grow, and ever since has steadily advanced in population and wealth. In 1879, when the Southern Pacific Railroad reached Maricopa, which is distant thirty-five miles from Phoenix, the city contained a population of about two thousand. After that time one great improvement after another was inaugurated in this valley, which tended to increase the wealth and population of the city. The beginning of the construction of the Arizona Canal in 1883 gave employment to a great number of men, there having been expended on this one undertaking alone the sum of \$700,000 during four years, the period of its construction. On the Fourth of July, 1887, the ambition of this rising and progressive young city was, for a time, apparently satisfied by the completion of the thirty-five miles of railway which connects Phoenix with Maricopa, thereby insuring to the city a complete railway communication with the leading cities of the West and East. The occupation of the early settlers was in raising hay and grain for the use of the Government. Before the advent of any railroads in Arizona, a great number of wagons were engaged in hauling from Phoenix these products to the various Government posts and mining camps, scattered over Arizona and New Mexico. To manage and conduct this business, there sprang up in Phoenix large mercantile houses. To-day the volume of business done in this city exceeds that of any other city in Arizona. It amounts to about \$2,000,000 annually. The completion of the Arizona Canal and the large systems on the south side and the entrance of the railroad into the city were eventful in the growth of Phoenix. The location of the capital here in 1889 was also of the greatest importance, and gave the city a great boost.



Aug. C. Clark

In 1867 the pioneers, who came in great numbers to explore the Territory of Arizona, were surprised to find that they had been anticipated, and that a new object-lesson in the self-repeating habit of history had to be scanned and learned by them. There were mounds in which the intelligent observer could discover the remains of houses which had formed a part of large cities, and there were traces of canals by which water was conveyed to what must have been a large and prosperous settlement of a prehistoric race. Acting on the hints thus conveyed, the first settlers in the valley resolved to inaugurate a course of irrigation on the lines laid down by the ancient people, who had, as a matter of fact, "built wiser than they knew," and "left a legacy for an undeserving posterity." As those settlers increased in numbers, the necessity for a central marketing point, in other words, a town, became manifest, and three years after the first great body of settlers located in the Salt River Valley—that is to say, in 1870—the City of Phoenix was platted and the foundation of the county seat of Maricopa County, and of the ultimate capital of Arizona, was laid.

The origin of the name was as suggestive as it was appropriate. The ruins of cities, whose relics only remained to tell of their former existence, were on every hand around the site of the prospective city, and although it could not be definitely ascertained, or even approximately guessed, that they had been wiped out by fire, and their inhabitants exterminated by a power stronger, it was agreed to give the name of Phoenix to the new city, inasmuch as, if it had not literally risen on the ashes of a former city, it certainly rose on the ruins of a previous and extinct civilization. The site chosen for the new city was well selected. It lies, as nearly as possible, in the center of the valley, on the northern bank of the Salt River, at a point twenty-eight miles from where it enters the valley.

The City of Phoenix is situated thirty-five miles north of Maricopa Station, on the line of the Southern Pacific Railroad. It comes into view as a surprise to the traveler who has, for hours, been traversing a barren plain, covered with cactus and mesquite. On a sudden, he finds himself in a perfect bower of verdure and vegetation—and he is in Phoenix. The city is the center, and entrepot for all supplies, of the great valley

of the Salt River. It was laid out, as the site was selected, with the finest judgment. It is central in situation and its streets are from 80 to 100 feet wide, more frequently the latter than the former. The "blocks" are 300 feet square. Washington street is to Phoenix what Broadway is to New York.

The beauty of the city of Phoenix—not only that of its residences but of its natural surroundings—strikes the most unobservant visitor, and causes him to give vent to expressions of astonishment and admiration. The shaded streets, lined with finer and more umbrageous trees than shelter and shade the imperial boulevard in Berlin, known, the world over, as "Unter den Linden," are not to be matched in the world for beauty, while the cool rivulets which run on each side of the streets not only rival but surpass those in the vaunted streets of Salt Lake City. The leafy bowers that surround the residences have all the luxuriance of growth that is characteristic of the countries bordering on the tropics and fostered by a semi-tropical sun, and, in no other country can such a setting of leafy shade and sheltering boughs be found around the homes of citizens as in the Queen City of Arizona.

To this city come the settlers along the Gila, for a distance of a hundred miles east and west of Phoenix, to do their shopping and to sell the products of their ranches. From the many rich mining districts that are tributary to Phoenix come the mine owners or the superintendents of mining companies, to buy their supplies and to arrange for the shipping of their ore. From the countless cattle ranches, that are scattered over the vast territory that is tributary to Phoenix come the proprietors for their household supplies and to arrange for the shipment of their stock to the various leading markets of Southern California and to Chicago.

The city was incorporated in 1880 by a special act of the Legislature of the Territory. In the center of the plaza, which is situated on the main street in the heart of the city, a municipal hall has been built, the like of which is not excelled for beauty and appearance, by that in any city in Arizona. This handsome structure was built in 1888, at a cost of \$22,000, and is 60x90 feet. The avenues of approach to it are thickly lined on each side with stately cottonwoods, and

around the outer edge of the enclosure there are set an abundance of shade trees. On the removal of the capital from Prescott to Phoenix in January, 1889, the rooms in the second floor of the building were used by the Legislature as an assembly hall. The two finest rooms on the first floor were set apart as offices for the use of the Governor and Secretary of the Territory. On this floor the Phoenix Chamber of Commerce occupies a room for the purpose of holding its meetings and displaying its fine collection of fruits. Another of these rooms is occupied as a council chamber by the city council and as the office of the Recorder and Marshal of the city. The balance of this floor is occupied by the fire department for the lodgment of its apparatus, while the basement is used as a jail. The court house is likewise an imposing structure, built of brick, and occupies a block 300 feet square which is beautified with grass, shrubs, trees and flowers. The city is situated 1,200 feet above sea level.

There are three commodious and elegant public school buildings in the city. The Methodists have two places of worship, while the Catholics, Presbyterians, Christians, Baptists, and Episcopalians have handsome structures devoted to religious purposes. The secret societies are well represented; there are lodges of Masons, Odd Fellows, Knights of Pythias, Red Men, Order of United Workmen, Chosen Friends and Good Templars. There are three daily newspapers, the "Gazette," "Herald," and "Republican," each of which issues a weekly edition. Phoenix is lighted by gas and electricity, and is supplied with street railroads and water works. It has a well organized and efficient fire department. There are two manufactories of artificial ice, an immense fruit-packing establishment, three planing mills, two flouring mills, two large foundries and six banks, two machine shops, galvanized iron cornice factories, two cigar factories, beehive and fruit-box factories, canning factory, pork packing establishment. There are good hotels, and many good lodging houses. Business of every description is well represented in Phoenix, and it being the natural trade center for an extensive region, has a large and steadily increasing traffic. There are two electrical plants, one having a circuit of more than thirty miles. The Territorial Insane Asylum is here, having cost

over \$60,000, and the new capitol will soon be erected on the beautiful grounds prepared for it. The first and most important consideration to any city or town is a sweet, clear and never failing supply of good drinking water. The sparkling liquid plays a most important part in the location and laying out of sections that are destined to become great and populous centers, and upon it depends the health and happiness of communities and generations of communities to come.

In this respect the city of Phoenix is blessed by having an inexhaustible supply of healthful water right at its very doors, and this most important branch of its local affairs is in the hands of a private company composed of some of the brightest business men in the valley. Here there can be no stealing of the public funds, and no contracts let that will not be carried out to the full letter of the law, as regards first-class materials and workmanship, in the laying of pipes and water mains.

This corporation is called the Phoenix Water Company, and has for its officers T. W. Hine, president; M. H. Sherman, vice-president; Jerry Milny, treasurer, and B. N. Pratt, secretary. They have a franchise from the city of Phoenix to furnish water and lay pipes to any house within the city limits. The present company bought out the Phoenix Water Works Company, with all the stock and fixings, and expended large sums of money in improving and perfecting the system.

They have the latest machinery at their pumping station and well, which is situated only one-half of a mile from town. The company have also gone to the enormous expense and trouble of putting in a duplicate plant, so that in case of accident to one pumping outfit the other could commence work immediately, thus not delaying or hindering the water supply for a moment. The capacity of the pumping station is 3,000,000 gallons per day, although from 500,000 to 700,000 gallons supply all the water needed at the present time. The company have under their control at present twenty miles of pipe which fairly encompass the town.

The Phoenix Light and Power Company was organized under the laws of Arizona with a capital stock of \$100,000. The capacity of their plant is 2,000 incandescent and 100 arc lights, and ad-

ditional power for running electric fans, motors, etc. This corporation purchased the business, good will and plant of the Phoenix Electric Light Company. Their machinery and apparatus is of the very finest material and workmanship. The company consists of L. C. Kilham, president; E. H. Hiller, vice-president and treasurer, and M. H. Bissell, secretary.

The newspapers of Phoenix are probably the most striking evidences of her astonishing growth. They are fully up to the times in every respect and vie with each other in the great variety of news they daily present to their readers. From a journalistic standpoint they well bear comparison with any newspaper in the West. Phoenix possesses no less than three daily and weekly papers, the "Gazette," the "Herald," and the "Republican." All of them are live, progressive and prosperous publications. They have done a great deal toward the present prosperity and progress of Maricopa County, and fully deserve the support and encouragement which the people accord them.

The chamber of commerce of the city of Phoenix was organized November 13, 1888, its members being the leading business men of the city, all of them actuated by the kind of public spirit which builds up new cities, and consolidates those of older growth. It is not too much to say that all the progress that Phoenix has made for the past two years has been not only largely, but almost exclusively, due to the aggressive and effective work of its chamber of commerce. That body has spared neither pains nor expense to advise the world of the pre-eminent attractions of the Salt River Valley, it has stood on the intrinsic merits of the city of Phoenix and challenged—as well as defied—contradiction; and it has, in short, done everything that a public-spirited aggregation of citizens could possibly be expected to do, to attract the home-seeking settler to locate in the Queen City of Arizona. That they have succeeded is made abundantly evident by the rapid increase of population, by the energy shown by the citizens in making improvements in public buildings and in other directions, and the general increase of activity that is noticeable, not only in the city itself, but in the whole valley tributary to it. The chamber is now in a very flourishing condition.

No financial enterprise yet established in Ari-

zona has contributed more toward the development of the natural resources of the Territory than the Western Investment Banking Company. Having for its founders, officers and managers men of exceptional financial ability, with capital limited only by the opportunities for desirable loans, the Western Investment Banking Company is the peer of any financial institution on the Pacific Slope.

The company was organized and chartered in March, 1890, under the laws of Arizona, being endowed with all the usual powers of corporations, but especially with those pertaining to investment, banking and trusts. The authorized capital stock of the company is \$100,000, and the stock has been at a premium from the month of its organization.

Investment companies are a modern development of banking. They find especial favor with capitalists from the fact that funds placed with them are held as a private trust, and cannot be applied to purposes not especially stipulated. The advantage of this medium of loans and investment was first realized by European and Eastern capitalists, and it is becoming apparent as time progresses that they have gained an enduring hold upon the confidence of the people and that the advantages to be derived through their methods of conducting business is beginning to be more generally recognized and appreciated throughout the financial world.

The Western Investment Banking Company transacts a general banking business in addition to making real estate loans and investments for clients. Loans are made upon dividend paying property in Central Arizona, and almost exclusively on the rich agricultural lands of the Salt River Valley. All loans, in addition to being placed on exceptionally fine properties and secured by a first mortgage, are guaranteed by the company and coupon forms of mortgages only are used.

The "Mercantile and Financial Times" of New York, speaking of Arizona as an inviting field for the safe and profitable investment of capital, said: "The Western Investment Company makes a specialty of the negotiations of loans, and handles a most desirable class of real estate and other securities. Its plan of operation leaves nothing to be desired, absolute safety being always regarded as the prime consideration, and strict ad-

herence to principles of the soundest conservatism and integrity being always observed. The loans of the company are all made with the greatest care and on the best security, with a large margin left open for safety, and although it has placed thousands of dollars for its clients, we have yet to hear of a single case in which loss has been sustained. It has built up for itself, therefore, a most honorable and enviable reputation, and its standing in the western world of finance is second to that of no institution of its class."

The Western Investment and Banking Company was organized to succeed Messrs. P. K. Hickey & Bro., investment bankers. The founders and stockholders of the company are among the ablest capitalists and business men of Arizona, and its officers and directors conspicuous for their conservative methods and sound judgment. They are Perrin L. Kay, president; J. A. Lutgerding, vice-president, and Phillip K. Hickey, cashier. There is probably no trio of business men in Arizona that would inspire greater confidence in a financial enterprise with which it was connected than the trio above named. Mr. Kay is an Arizona pioneer and capitalist, highly esteemed for his sterling integrity of character, and successful in all his undertakings. Mr. Lutgerding is also an old and esteemed citizen of Arizona, a man of marked ability and sound judgment and, financially, one among the rich men of the Territory. Mr. Hickey is one of Arizona's most able and successful financiers. His achievements in organizing and in the management of the Western Investment Banking Company have won fame for him in banking and in financial circles from the Pacific to the Atlantic, equal if not exceeding that of any other financier on the Pacific Slope. Phoenix possesses no more valued or esteemed citizen than Phillip K. Hickey, nor one more loyal to her true interests and prosperity. The financial correspondents of the Western Investment Banking Company are the Nevada Bank of San Francisco, the Farmers' and Merchants' Bank of Los Angeles, the Union National Bank of Chicago, and the Western National of New York.

The Valley Bank of Phoenix is rightfully accorded a place among the most conservative and stable banks of the Territory; and it will be admitted without a dissenting voice in business and

financial circles that it has been, since the establishment in 1884, as intimately associated with financial affairs of Arizona as any banking institution in the Territory.

The Valley Bank is an incorporated financial institution, under Territorial laws and under the general United States banking laws, with a fully paid-up capital of \$100,000. It is a home institution, all except a small amount of the stock being held by residents of Maricopa County, and all of its officers and directors being prominent business men and capitalists of Phoenix and the county. The officers and directors are Wm. Christy, president; M. H. Sherman, vice-president; M. W. Messenger, cashier, and F. C. Hatch, E. J. Bennett, W. D. Fulwiler and W. E. Lyman directors in association with president, vice-president, and cashier. The officers are experienced financiers, both President Christy and Cashier Messenger having previously been in the banking business in Iowa.

In addition to its capital stock of \$100,000 the Valley Bank has a surplus and undivided profits of \$35,000. Its business is confined to legitimate fields of banking. Advantageous connections are maintained with the best banks of the Pacific coast, the interior, and the Eastern cities, which afford exceptional facilities for transacting business with promptness and thoroughness. Especially does this apply to making collections and handling commercial paper.

Loans are made on real and personal security. The highest price is paid for gold and silver bullion. Taxes are paid for non-residents. Collections are made on all accessible points, and proceeds promptly remitted. The bank is eligibly located and is fitted up in good modern style. The vaults are fire and burglar proof, and every convenience is provided for the dispatch of business and the accommodation of patrons.

The Phoenix National Bank, one of the safest and most conservative institutions of the kind in the West, was organized in the year 1892 by James A. Fleming, with a capital of \$100,000. The first officers were James A. Fleming, president; P. J. Cole, vice-president, and E. J. Bennett, cashier. At the outset the bank took a prominent stand among the monied institutions of the Territory and has steadily grown in public favor and prosperity. It has enjoyed a high degree of prosperity and still has its original cap-

ital besides undivided profits amounting to about \$20,000. It is one of the finest equipped banking institutions in the Territory. Its officers are courteous and business-like and understand the management of their bank. The present officers are as follows: Frank S. Belcher, president; P. J. Cole, vice-president; C. J. Hall, cashier; A. H. Harsher, second vice-president. This bank is the only United States depository in Arizona, a confidence and trust well merited. Connected with the bank is a steel deposit vault where for a small compensation valuables of all kinds may be safely kept until wanted.

The following is taken from a local paper and refers to the retirement of Mr. Kales from the management of this well-known financial institution:

The National Bank of Arizona is the oldest and one of the most successful national banks in the Territory of Arizona. Up to the present time it has been, virtually, a close corporation, as the stock has been held by M. W. Kales and Messrs. M. and Sol Lewis, with the exception of such local shareholders as were necessary to form the directory.

M. W. Kales, the retiring shareholder and president, is not only the pioneer banker of Arizona, but of Nevada, having been the cashier of the First National Bank of Austin, at its organization. Mr. Kales' success as a banker in this Territory is a public fact. But, while he leaves Phoenix to take up his home at Oakland, Cal., he still retains interests in the city that aggregate near the quarter million mark, so that he is still to be looked upon as one of the city's best citizens.

Messrs. Sol and M. Lewis will still retain their interest in the bank. Mr. Sol Lewis is vice-president.

M. Lewis is the largest shareholder in the directory of the Bank of California.

Those who succeed to Mr. Kales' share of the stock are E. Ganz, Geo. W. Hoadley, Joseph Thalheimer, E. M. and C. D. Dorris, Edward Eisele, Charles Goldman, John Y. T. Smith and the city's new mayor, James D. Monihon, who may be considered as representative of the most conservative and successful business interests of the city.

Yesterday was held the meeting of the directors of the bank at which the transfer was for-

mally made. The transfer of stock was made by Mr. Kales, and the new directors took their seats. Organization was perfected by the election of Mr. Ganz to be president, Sol Lewis vice-president, and Geo. W. Hoadley cashier.

Mr. Hoadley is again placed in the position he has occupied since 1887, when the institution was organized as a national bank. His record, however, as a banker in Arizona extends far back of this date, back into the early eighties, when he was called by Mr. Kales from San Francisco to assist in managing what then was known as the "Agency of the Bank of Arizona." He is known to the people of Arizona generally as one of the most cautious and yet progressive of financiers, and it is largely to his efforts the great success of the institution is due. In the new deal he becomes one of the largest shareholders. To him also is due the credit of placing at a premium the Kales shares locally, though but a few days have been given him for the task, and his ready success must be considered as a high compliment to his management.

Emil Ganz, the incoming president, has been a citizen of Phoenix for the past seventeen years, and is a man whose entire interests lie in Phoenix. The opinion of his neighbors is best shown by the fact that he was elected last Tuesday without opposition to be the councilman of his ward and that before he has held the post of mayor to the full satisfaction of the municipality.

The capital stock of the bank and all the features of its management remain unchanged, though it is probable in the near future two directors will be added to the five that now are allowed.

The final meeting yesterday was remarkable for the fact that at it was declared probably the largest dividend ever known to banking in the West, namely 66 per cent. All the securities held were examined and declared gilt edge, and the percentage of deposits on hand was found to be far in excess of the legal requirements.

Mr. Kales, in leaving his office, spoke warmly expressive of his belief that Phoenix is destined to become one of the great cities of the West. He leaves the bank only that he may not be compelled to be frequently absent from his home in Oakland, Cal., where his main business interests now lie and family reside, yet retains investments that will continue his financial interest in the

progress of this city. He will probably this summer visit Europe with his family, intending to return for a while to Phoenix in the winter.

The National Bank of Arizona, at Phoenix, A. T., was organized and succeeded Messrs. Kales & Lewis, bankers, June 18, 1887. The officers then elected, and who have remained in the management of the bank up to the first day of June, 1896, are: M. W. Kales, president; Sol Lewis, vice-president; Geo. W. Hoadley, cashier. The board of directors during this time was made up of the officers, Charles Goldman, and John Y. T. Smith. The only other shareholder, outside of the directors, was M. Lewis of San Francisco. The bank was a dividend payer from the start. During the nine years, to the first of June, 1896, in addition to a regular annual dividend of from 12 to 15 per cent, the bank accumulated a surplus of \$30,000 and undivided profits of over \$50,000. On June 1, 1896, M. W. Kales retired from the presidency and also as a shareholder. Before selling his stock, however, the directors reduced the surplus fund to \$20,000 and declared dividend No. 18 of 66 per cent of the capital stock of \$100,000. The new shareholders buying out the interest of Mr. Kales consist of the most conservative men the city of Phoenix affords—Mayor J. D. Monihon, Emil Ganz, Messrs. Dorris Brothers, Edward Eisele, Joseph Thalheimer, Charles Goldman, John Y. T. Smith, and others.

Lamson Inter-Collegiate School and Business College was first established in 1889, in a small room in a private house, and with one student. There was only the business course until 1893, when shorthand and typewriting was added. During this five years the school three times outgrew its quarters, and now occupies its own building, one of the handsomest two-story bricks in Phoenix, and located just far enough outside the business portion of the city to avoid its noise and distractions. The average attendance during the year 1894-5 was more than seventy; and, besides, students from all parts of the valley, fifteen came from distant points in the Territory. Young ladies and young gentlemen are given equal advantages, and every assistance possible is rendered students after leaving school.

A commercial school should above all else be conducted upon the practical lines the pupil will have to follow in a life of business; and it is a

noteworthy feature of Lamson Business Department that it possesses this advantage in a pre-eminent degree. In the furnishing and fitting of the rooms all the paraphernalia of a counting room, bank, shipping office, etc., is provided, and students are given lessons in the practice as well as in the theory of business. Besides giving business practice and office training in all leading lines, arrangements have been perfected for an inter-communication course, and Lamson's students now go through the extended details of modern business with students of leading business colleges in Minneapolis, Cedar Rapids and other cities. This department also gives an opportunity for judging the work of Lamson students as compared with that of students of other celebrated institutions in various parts of the country, and it should be gratifying to all interested in the educational facilities of Phoenix and the Territory that in every instance it has been found to compare very favorably with that of schools in many instances much older and larger.

All of the branches taught in the best modern business colleges of the East, including shorthand, typewriting, business writing, commercial arithmetic, commercial law, bookkeeping, civil government, etc., are taught at Lamson.

The inter-collegiate department is especially designed to fit students for a college course, and its curriculum covers all the work necessary to enter either the classical, philosophical, or scientific course of Yale, Harvard, or any college in the land.

The principal of this school, Mr. Edwin Manny Lamson, is especially fitted both by education and by experience for the position he occupies. His experience covers three years' teaching in the public schools of Illinois, one term in the celebrated Bryant & Stratton Business College of Chicago, and three years as principal of a business college at Watertown, S. D., as well as his five years in Phoenix. He is assisted by a corps of able teachers, each proficient in the lines taught by him or her.

Prof. Lamson stands deservedly high both as an educator and as a citizen. Too much can hardly be said in praise of his efforts and success in establishing the Lamson Inter-Collegiate School and Business College.

Of the many notable institutions of Phoenix the Sacred Heart Academy claims the foremost

rank. This institution, founded in 1892, is under the direction of the Sisters of Mercy, who, among their other various works, make the education of young ladies a principal one.

The academy is situated in the healthiest and quietest part of the city and but two blocks from either of the electric car lines. The building includes besides a boarding school for young ladies a select day school for the same, and apart from these a preparatory school for boys. The daily attendance at these schools is about one hundred.

Every care is taken by the sisters to give their pupils a solid and accomplished education, adopting for this purpose the latest and best systems of instruction, both in the literary and art departments. The sisters are non-sectarian as regards the education of those intrusted to their care, but when desired a careful religious training is given.

Conducted also by the sisters, though not in connection with the academy, is the parochial schools for Mexican children, where Spanish and English are both taught.

The fine commodious hospital, erected in 1895 in the northern part of the city, and the only one of its kind in Phoenix, belongs exclusively to the sisters, and is under their immediate direction, where all that is in their power is done in behalf of suffering humanity.

One might travel the country over, and then fail to find a town of even equal advantages to Tempe. Located as it is at the base of Twin Buttes, there is a peculiar charm about the location. The new-comer is pleased with the scenery, and the old settler would be lost without it. From the base of the buttes the land lies almost as level as a floor, and when one climbs part way up the natural monuments, the sight beheld is not soon forgotten. In all directions may be seen well-tilled farms and fruit orchards, waving trees and blooming rose gardens, and the panorama of fairyland is suggested.

The little city of Tempe now presents an appearance of unusual activity even for a Western town, and its 1,500 souls keep things moving continually. The town at once presents the appearance of thrift and enterprise. New buildings are going up on every hand, not small affairs, but large, commodious business blocks, built of brick and stone, and also charming villas and cottages

are being erected in the midst of growing orange groves. Tempe is well laid out, and the streets are graded and kept in good condition, a fact the citizens of Tempe pride themselves upon, and with just cause. The new store-buildings that are going up are nearly all rented, which speaks well for the business prosperity of the place. In fact, it is a rare thing to hear a Tempe merchant say "hard times." The Territorial Normal School is located at Tempe.

The citizens of Tempe not long ago showed their keen perception of the importance of their growing town by organizing a sanitary board, and paying the entire expense of organization, etc., personally. Tempe is located on the Maricopa & Phoenix Railroad, eight miles from Phoenix, which gives it ample transportation facilities and enables the citizens to send their fruits and produce to market among the first.

Many substantial men are now coming to Tempe and putting in their dollars, their energy and brains, which, with the substantial men already there, augurs well for the future of a city of magnificent proportions, and a fruit and farming land equal to any in the world. The section of country around Tempe is fully supplied with water, and there need never be any question as to the supply of that necessary commodity.

The farmer of the East who views the land of Arizona, before it has been subjected to irrigation, has no conception of what the soil is capable of producing. At the first sight it can be easily compared to the sea beach, but when water has been turned on and seeds planted, presto! as it were; the scene is changed, and the desert is found to have been transformed into a garden, impregnated with the perfume of tropical plants and flowers. The Salt River Valley, in which lies Tempe, is well supplied with irrigating canals. This ample supply of water makes it possible to grow in abundance everything, almost, that is produced from the Arctic Circle to the Equator. There is not a flower but can be grown, which gives it a right to the title of the "Land of Flowers." Among the many productions may be enumerated the following:

Oranges, limes, figs, bananas, walnuts, peaches, quinces, pears, apples, strawberries, lemons, olives, pomegranates, almonds, nectarines, apricots, pecans, plums, cherries, peanuts, mulberries, and small fruits of every variety.

Cereals and grasses of all kinds give a prolific yield.

Briefly, such is the Salt River Valley around Tempe, a land of wonderful fertility, manifold in its productions and bounteous in its return for the labor bestowed. It may not inaptly be termed a beautiful oasis in the desert.

The home-seeker naturally asks among the first questions about the cost of living. Provisions range in price about as follows:

Flour, per 100 lbs, \$2.50 to \$3.00; coffee, per lb, 15c to 30c; sugar, per lb, 6c to 8c; tea, per lb, 20c to 75c; bacon, per lb, 9c to 12c, etc.

Building material is not as expensive as one might naturally suppose. Good brick can be obtained for \$6.50 per 1,000; rough lumber at \$30; surfaced lumber at \$40, and nails at \$5.50 per 100 pounds. It will be seen from this that what has to be bought here can be obtained at reasonable prices.

One thing the home-seeker finds in the vicinity of Tempe is the easy way he can obtain ten or twenty acres of land, which enables him to buy his home and pay for it in payments small enough for him to meet under most any circumstances.

All kinds of nuts and fruits yield equally as well. The Tempe people are happy and contented, and always extend the right hand of fellowship to the stranger within their gates, and the little city is known far and wide for its hospitality. Among the inducements that Tempe and vicinity offer may be given in the following paragraphs:

First—A winter climate that cannot be excelled. Second—Lands and water at present can be bought for one-fifth of ruling California rates. Third—Soil twelve to twenty feet in depth, equal to any in the United States, which will produce anything planted. Fourth—A greater water supply, by actual measurement, than Los Angeles, San Bernardino, and San Diego counties combined. Fifth—From two to six weeks earlier with our green fruits. Apricot and plum crops mature May 15th, grape and apple crops mature June 10th, and all other fruit in equal proportions. Sixth—From thirty to forty-eight hours nearer the Eastern market than any other fruit producing section. Seventh—A profitable field is offered to the horticulturist as the fruit demands far exceed the supply.

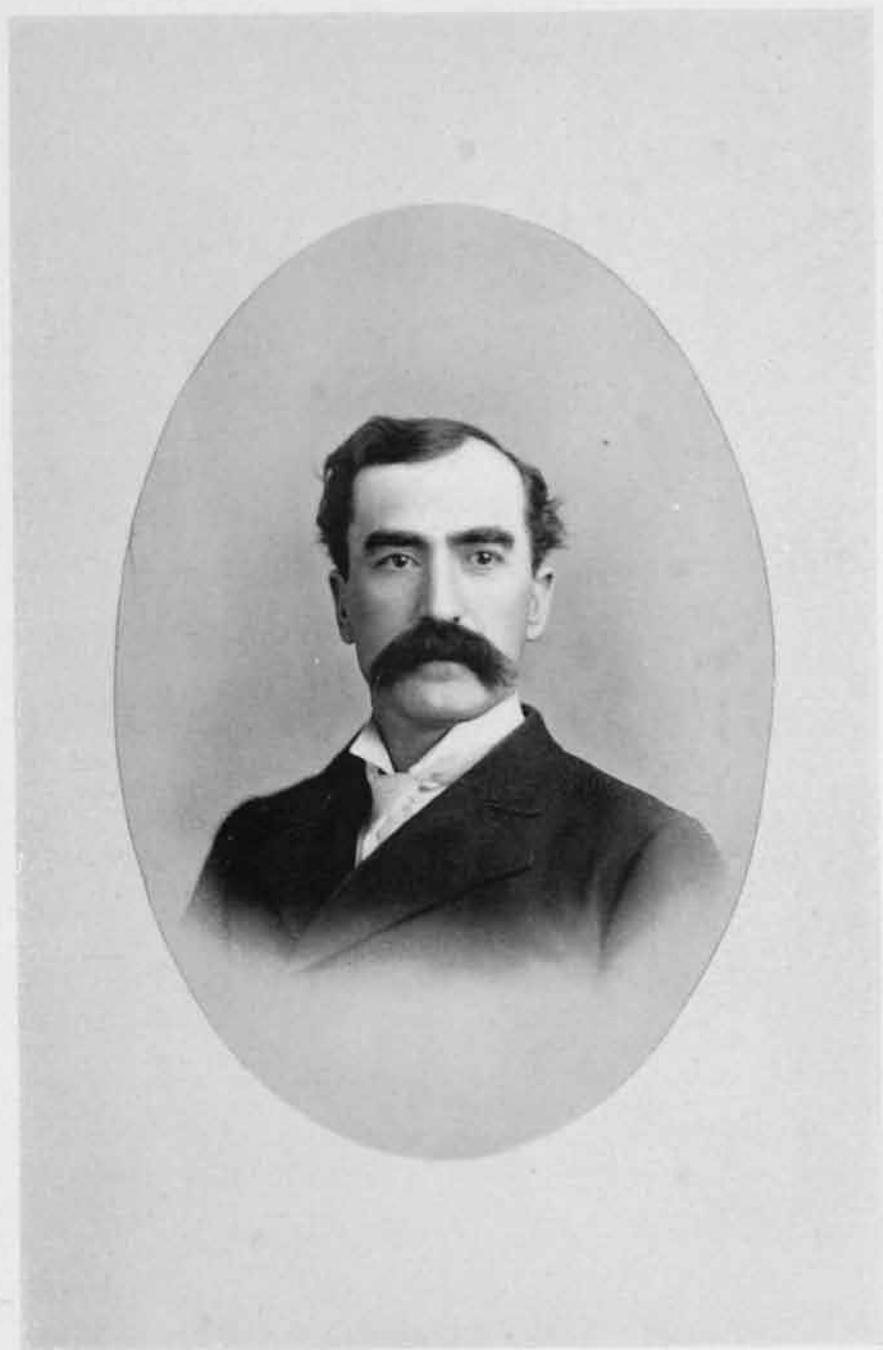
Educational opportunities at Tempe are of

the best, the high school being most efficiently conducted. The Territorial Normal School here already casts the light of culture over the community.

The town has grown in a few years from a slow, dead village of scattered adobe houses to a bustling modern center of activity and thought, with fine brick residences and blocks, and a population of nearly 2,000. Three good hotels, several churches, two banks, a flouring mill, ice factory, two newspapers—one daily and one weekly—planing mill, a street railroad, cold storage warehouse, board of trade, lodges and societies, large stock yards, are some of the inviting features of this fine little city.

Glendale is rapidly becoming one of the prettiest little places in the county and is an important shipping point on the S. F. P. & P. R. R. It is located ten miles northwest of Phoenix and is rapidly filling up with Quakers, Dunkards, Menonites, River Brethren, and other temperance people. Some of the orchards of the Arizona Improvement Company are located there, and the business of handling the large crop of fruit is active. The place is located in the midst of the western section of the valley and is surrounded for many miles, in all directions, by some of the finest land in this region of fine land. The place is particularly devoted to fruit culture, as will be the entire region surrounding it, in the course of a very few years. In fact the time is coming when fruit culture will be the business of the entire valley. Early fruits such as ripen here earlier than anywhere else in the United States will be the objective points in the business, and for such fruits enormous profits can reasonably be anticipated.

Years ago, a wagon-train of desert travelers pitched their tents beside the waters of the Salt River. A fertile valley was about them, and the azure of a perfect sky curved down on every side to purple-tinted mountains. They had journeyed patiently for months over a trackless, parched and barren waste, beneath a blistering sky, through a land where human foes had tracked them by day and menaced them by night—under the sun a dreadful thirst, under the stars a dreading vigil. Rough they were in aspect, uncouth, perhaps, in manner—for pioneers, no matter though the divine afflatus may be encased beneath their rude assumption, conceal their finer



— *Will Frazier*

sensibilities with a rugged semblance of their undeveloped physical surroundings—but in their midst they brought a maiden, fairer than Aurora, and a man of perfect mould. Faith was the name of the damsel, and her consort's name was Industry. And when the weary Argonauts took each a portion of the fertile valley they had found, and laid their hearthstones there, and turned with plow the brown soil up toward the smiling sky, this twain dwelt with them still. They toiled on the light of promise; the fruition of their labor appeared secure; and in the course of time a child of Faith and Industry was born. Tiny, it is true, unnoticed little it may be, but nevertheless the energy of life was there, and the possibilities of a splendid maturity were carefully developed. Because of its form and feature, it was called Mesa City.

When the mighty bells of the Eastern cities were ringing out their announcement of the birth of the year 1878, that portion of the great Salt River Valley on which Mesa City now stands was an arid plain, unpeopled and practically unknown. In February of that year its regeneration began. Seated at a camp fire on the banks of the Salt River, several travel-stained, weary men, almost destitute of worldly goods, planned its restoration to the markets of the world from the torpor in which it had lain since the annihilation of the Aztec race long centuries since.

Frank M. Pomeroy, John H. Pomeroy, George W. Serrine, Warren L. Serrine, Theodore C. Serrine, Charles Mallory, Elijah Pomeroy, Parley P. Serrine, from Bear Lake, Idaho, and William M. Newell, Charles I. Robson, William Schwartz, Job Henry Smith, Charles Crismon, John D. Hobson, William Crismon and J. H. Blair, all from Salt Lake City, Utah, were their names. And when in future years the youth of a wholly developed continent read the biographical histories of the great pioneer heroes of America, no purer source for information, no nobler models for emulation, will be found in all the archives of Occidental achievement than the earnest, patient, self-abnegating careers of these modest but truly great reclaimers and reformers of a long forgotten and a long abandoned land. There will be no thrilling tale of bloody battle on their page of that great history, no incident of reckless warrior courage; but it will tell of hunger and of hardship bravely borne, and of herculean labor cheer-

fully performed; of smiles which conquered grim adversity, smiles which rainbowed the very sweat upon their brows.

Seated at that camp fire, their loved ones sleeping near, the colony in all numbering seventy-nine, they counseled for the morrow. What were their possessions? What had they with which to begin their battle with undeveloped nature? What did they need? What could they procure? An inventory was mentally taken; their requirements approximately discussed; and the result would have dismayed many men of the most determined mould. Not so with them. The first essential requisite, of course, was water—not to assuage their thirst, but the thirst of the torrid lands. Ditches must be made. Where were the engineers, with their costly instruments and years of college training? Where the heavy teams and modern implements to turn this water from its sunken bed out into the higher plane of the adjacent soil? They had them not. Yet that night they resolved that these ditches should be dug. How did they accomplish it? God only knows. The story of their privations, their sufferings and their achievements will be told when the history of Mormon colonization is fully written. So modest are these men in talking of their work that one can only conjecture as to the methods they adopted. The result is a complete and perfect system of irrigation.

In May following W. A. Kimball, Charles Crismon, Jr., Joseph Cain and William Brim, from the neighborhood of Salt Lake City, joined the colony and immediately began co-operation in all of its undertakings. Later in the same year T. C. Serrine located in his name the section of land upon which Mesa City now stands, which section was the true nucleus of the subsequent growth of the region now known as the Mesa lands of the Salt River Valley, embracing as it does its wealth of vineyards, orchards, fruitful farms and its numerous industrial and commercial developments.

Due deliberation and intelligent co-operation were necessary for the selection of suitable land, and for this purpose a choice section was decided upon for the building of a town. The land chosen was deeded to a townsite company by its locator, T. C. Serrine, and plans for its symmetrical apportionment were formulated by C. I. Robson, George W. Serrine and F. M. Pomeroy, who

also gave it its present name. It was surveyed into lots and blocks, giving the streets a width of 125 feet, by A. M. Jones. The plan adopted for the distribution of the lots, all of which were an acre and a quarter in size, this, making eight lots in a block of ten acres, was that the settler who held one share of stock in the newly built Mesa canal, each share being then valued at \$200, was entitled to four lots, and he who held more than one to as many more in the same ratio. The work of erecting houses was then begun, and Charles Mallory built the first adobe house, which still stands near the geographical center of the town. The other buildings were constructed Mexican fashion, the roof being made first, supported on poles, and then the walls were built up to it. On the completion of the canal, a distance of nine and a half miles, fruit trees were planted and gardens speedily laid out. A school house, that also served for religious purposes, was then erected of adobe, and in 1882 an addition to it was made. About this time the place began to take on quite a village air, and it was considered entitled to municipal incorporation. A petition praying for such was signed by sixteen citizens on July 5, 1883, and was granted by the county supervisors July 15, 1883. An election was held on the first Monday of August following, and the officials elected were as follows: A. F. Macdonald, Mayor; E. Pomeroy, George W. Serrine, William Passey and A. F. Stewart, Councilmen; C. I. Robson, Recorder; J. H. Carter, Treasurer; H. C. Longmore, Assessor; W. Richins, Marshal; H. S. Phelps, Poundkeeper.

Under the wise direction of this governmental body the city of Mesa was steadily improved, streets and sidewalks received due attention, and in the ensuing years their successors followed in the line of progress they laid down. Desirable homes were erected concomitant with the growth of wealth.

The business structures line the main street sixty-six feet on either side, while other handsome buildings, devoted to commerce as well, are situate in various districts throughout the city in pleasing individuality. There are thirty-six blocks of ten acres each, and twenty-eight of fractional size within the city limits, the area being one mile square. The development has been exceedingly rapid. The city election is held every year, on

the first Tuesday in January, and two councilmen are elected alternately to one and two-year terms.

During the council's incumbency, in the year 1894, there were nearly \$1,100 expended on public improvements, the streets and crossings receiving most attention. In the latter alone 11,000 feet of lumber were used for culverts, and the subject of a more perfect street grade now engrosses the attention of the council. This may be taken as illustrative of the spirit of progress and municipal ideality which prevail.

Beginning with a population of seventy-nine souls, in the early part of 1878, the community has steadily grown, slow, it is true, but healthfully and permanently, until its numbers have increased nearly two hundred fold. One of the most convincing evidences of the people's prosperity is the fact that almost every family owns its own home and lands. The assessment rolls of the city and county are indubitable proof of this, and, what is more, the per capita of wealth is considerably larger than in many cities of its size elsewhere. Taking the city assessment alone, the thirty-six ten-acre blocks, together with the twenty-eight blocks of fractional size, excluding public property and school lands, all of which are within the city limits and owned by city people, and the assessed valuation of the same amounts to about \$37,252, while the improvements and personal property thereon are assessed at about \$69,148, making a total assessed valuation of \$106,400 in round numbers. This valuation, however, is exceedingly low, more so than is the general rule elsewhere. For, instead of being assessed at one-third of its actual value, as is common, it is listed in many cases at not more than one-fifth, and as a rule at about one-fourth. This would give an actual and fair valuation of \$425,600, showing a per capita distribution of wealth of \$608. A fact worthy of note is that the assessment rolls show that at no time during the eighteen years of its existence has there been the least evidence of retrogression, but every year has been marked by an appreciable advancement of its values.

The principal school building in Mesa is a handsome brick edifice, comprising five commodious rooms. It was erected at a cost of about \$8,000, and would do credit to many more pretentious communities. It is well attended and is

excellently conducted. An academy is also maintained in the spacious church building by the Latter Day Saints, where a comprehensive system of education is in vogue, and it has a large attendance. In the district of Alma another elegant structure has been erected on the western edge of the townsite, and cost \$7,000. These all provide ample educational facilities, and are a source of particular pride and satisfaction to the people.

There are three church organizations in Mesa City. In point of membership the Mormon denomination is in the majority. This Stake of Zion, as it is called, was first temporarily organized in October, 1878, by Apostle Erastus Snow and party from Salt Lake City, who appointed Jesse N. Perkins as Presiding Elder, with H. C. Rogers and G. W. Serrine as Counselors. In 1880 John Taylor, President of the Universal Church, called A. F. Macdonald to the presidency of the settlement, and he arrived from Utah in February, 1880, retaining H. C. Rogers and G. W. Serrine as his counselors, J. N. Perkins having left the country. In December, 1882, Apostles Moses Thatcher and Erastus Snow visited the settlement and effected a permanent organization.

On December 10, 1882, a conference was held and a change was made. President Macdonald was sustained, as was also H. C. Rogers, but Charles I. Robson was appointed in place of G. W. Serrine, who was honorably released. On the same date Elijah Pomeroy was ordained Bishop of the ward, with William Passey as First Counselor and W. Richins as Second. On December 4, 1887, President Macdonald was honorably released from his position, and Charles I. Robson chosen in his stead. H. C. Rogers and Collins R. Hakes were appointed his First and Second Counselors respectively.

Bishop Pomeroy held office until September 27, 1891, when William Passey succeeded him. His First and Second Counselors were W. J. LeBaron and Henry J. Horn. On May 10, 1894, James Malen Horn was appointed to succeed Bishop Passey, and David T. LeBaron and Warner H. Allen were chosen as his Counselors.

On February 24, 1894, President Robson passed away, and on May 10 of the same year Apostles John Henry Smith and Brigham Young, Jr., called C. R. Hakes to the presidency

of the Stake, with H. C. Rogers and James F. Johnson as his Counselors.

The first meeting house was also used for school purposes, and was built in 1880, and enlarged in 1882, and subsequently the present commodious house of worship, in rear of the Co-operative store, was erected. The Maricopa Stake of Zion, as it is called, is in a prosperous condition, the people cultivate a pure religious spirit, associating their worldly welfare with their spiritual aspirations, so that their religion, being practical, develops the best virtues of good citizenship. The present membership of the various wards embraced in this Stake, or district, is as follows: Mesa, 648; Lehi, 200; Alma, 282; Nephi, 104; Papago, white, 27; Papago, Indian, 596; Papago, southern, 629. Total membership, 2,496.

The Baptist denomination have erected an elegant edifice and the church is well attended. It is an attractive brick structure, and cost \$2,500. The pastor is Rev. Tomlinson, a man of erudition and power. The congregation is large, and the church is in a very promising financial and spiritual condition. The Methodists have also an imposing building, constructed of brick, handsome and commodious. The pastor's name is Rev. Sheldon, and the services are popularly attended. This edifice was erected at a cost of \$1,600. The people of Mesa City are a cultured, refined, church-going class, Mormon or Gentile—and there is a good population of the latter—so that the outlook for spiritual growth may be said to indicate an increasing demand for larger church accommodation, imperative in the near future.

Gila Bend, on the Southern Pacific Railroad, is important in being the supply point for a large extent of farming country along the Gila River, and for the Gunsight, and other mining districts in Pima County, from forty to seventy miles distant. There are several stores, a weekly paper, a hotel, etc., and it is likely that the settlement will yet grow into a town of considerable size. Indeed, already is there talk of another county, with Gila Bend as the county seat. The town has about 500 inhabitants.

Lehi is a small settlement, north of Mesa, on the river bank. It has a Mormon population, employed, for the most part, in fruit raising.

Fort McDowell, formerly a flourishing cavalry post, was abandoned a few years ago, and

it is probable that the reservation will be opened for settlement at no distant day. There are several thousand acres of excellent land lying along the Verde River, contained within the reservation, and it is probable that a farming community will keep a village in existence at this point.

Buckeye, thirty-five miles southwest of Phoenix, is a settlement existing, for the most part, in hopes for the future, for if the extension of the Buckeye canal is carried forward there will undoubtedly be at this point a town of no mean size. There are now established a hotel, store, blacksmith shop, butcher shop, etc. A lively weekly journal, the "Blade," voices the capabilities of the section.

Agua Caliente, Sidney, Kyrene, Alhambra, Peoria and Phoenix Mine are all small but prosperous villages, and all offer good inducements to the home seeker.

Maricopa County* is situated, geographically, nearly in the center of the Territory. It is about 144 miles in length from east to west and about ninety-one miles in width from north to south, and contains about 7,300 square miles, or 4,679,000 acres, of which about 243,000 acres are devoted to agriculture, horticulture and the grazing and fattening of stock from the mountain ranges. Irrigation is exclusively depended upon. The population of the county is estimated to be about 30,000, the estimate being based upon official data and accessions since their compilation. According to assessments of 1895, the taxable property of the county was valued at \$8,579,859, as follows:

Land property	\$3,151,164
Personal property	2,229,234
Town and city lots.....	3,199,461
Total	\$8,579,859

The real value, however, is estimated to be \$15,000,000.

The assessment rolls of the county for the year 1895 were made up as follows:

Lands (including \$260,170 in improvements)	\$3,151,164
Town and city lots (including \$808,880 in improvements).....	2,229,234
Horses	119,211
Asses	1,017

*By T. C. Jordan, Phoenix.

Cattle	185,373
Sheep	20,674
Swine	12,578
Other property	1,126,470
Railroads	598,688

Total value of all property.....	*\$8,579,859
Assessment in 1894.....	8,178,028

Increase \$ 401,831

Irrigation is wholly depended upon in all farming and kindred occupations, and the system is being rapidly reduced to scientific treatment. The following is a list of eighteen irrigation canals now completed and in full operation in the county:

Name.	Flow.	—Length—	
		Main canal.	Laterals.
Highland	6,000	18	30
Mesa (consolidated)	40,000	7	100
Utah	6,000	3	16
Tempe	20,000	2	51
San Francisco	5,000	7	12
Arizona	40,000	60	156
Grand	12,000	25	30
Salt River Valley.....	6,000	15	20
Maricopa	6,000	15	20
Farmers'	1,000	8	15
St. Johns	1,200	7	15
Buckeye	5,000	26	70
Peoria	35,000	40	90
Riverside	1,500	6	15
Noonan	1,500	8	16
Citrus Belt	2,000	15	20
Agua Caliente	3,000	12	25
Castle Dome	3,000	16	28

Many smaller canals are owned and operated by individuals, covering in the aggregate many thousands of acres, but of which there is at the present time no accurate information. The area of arable and irrigable lands in the county is not less than 1,500,000 acres, of which fully 240,000 acres are in a very high state of cultivation under the canals above mentioned. Add to this 3,000 acres as an estimate of the lands cultivated under the smaller individual canals and ditches, and there is a total of 243,000 acres cultivated in

*The amount, \$8,579,859, represents the assessment of 1895 as raised by the Territorial Board of Equalization, and this raise is not carried through the figures above it.

Maricopa County in 1895. Many of the canals mentioned have been enlarged and extended during the year 1895 so as to cover many thousand acres now subject to entry under the homestead and desert-land acts of Congress. In addition to the above there are in the county three canal enterprises under way, which, when completed, will cover at least 315,000 acres, nearly all of which is subject to entry. It is expected that two of these canals will be in full operation by 1897, a large amount of capital and labor having been already expended upon them.

The lands to be reclaimed by these great enterprises are all of the very finest quality. A visit to the Chamber of Commerce rooms of Phoenix will at once convince the most skeptical of their value and capabilities. There can be seen—all grown in this county, and of the finest quality and flavor—oranges, lemons, peaches, apricots, bananas, olives, pomegranates, apples, plums, strawberries (of which large quantities are shipped out of the county each year), raisin and table grapes, almonds, English walnuts, pecans, melons, peanuts and small fruits in almost endless variety; while at the mills, markets and storehouses can be seen wheat, corn, barley, potatoes, sugar cane, alfalfa, baled hay, and nearly every specimen of table vegetable known to a temperate and semitropical climate. There are not less than 9,000 acres devoted to horticulture. The amount and value of products is difficult to give. The following table will show approximately the number of acres devoted to the above products, etc.:

	Acres.
Wheat and barley.....	90,000
Alfalfa	95,000
Miscellaneous crops	12,000
Vines, raisin and other grapes.....	4,500
Apricots	1,250
Peaches	700
Pears	500
Almonds	450
Strawberries	60
Plums	70
Apples	25
Figs,	246
Oranges	1,500
Lemons	7
Pomegranates	31
Blackberries	5

	Acres.
Quinces	16
Grain hay	20,000
Sugar cane and sorghum.....	5,000
Timber culture	11,000

Bee culture has been found to be a most pleasant and profitable occupation in this valley. Pasturage is practically unlimited. There were in 1895 in this county about 6,000 stands of bees, and the average product is about 100 pounds of honey per stand. It is of the finest quality and flavor, and finds a ready market in Eastern cities. In 1894 there were shipped out of this county about 460,000 pounds of honey. The dairy business is extensively engaged in. The value of dairy products for the fiscal year ended June 30, 1895, gathered from the best sources of information to be had, amounted to about \$100,000.

There are many reservoir sites in the county. Three of large capacity are now under construction. The Hudson Reservoir Company has located and surveyed the Box Canyon on Salt River. This enterprise is of great magnitude, and should receive Government aid. When completed, the great question of a permanent water supply for the entire Salt and Gila valleys will be solved.

The following denominations have active organizations in the county, and some fine church edifices have been erected. The church edifices, by denominations, are divided as follows: Methodist Episcopal Church South, 8; Methodist Episcopal, 6; Baptist, 4; Episcopal, 2; Presbyterian, 2; Free Methodist, 2; Congregational, 1; Dunkard, 1; Catholic, 2; Mormon, 2; Salvation Army, 1. There are in the county one Masonic lodge, three Odd Fellows lodges, one Foresters lodge, one Knights of Pythias lodge, and one lodge of the Ancient Order of United Workmen.

There are three Indian reservations in the county, the Papago, at Gila Bend; the Pima, in the southeastern part of the county, and the Maricopa, near Phoenix. At Phoenix the Government has erected large and commodious school buildings for the exclusive use of these Indians. The interest manifested in them by the Government and all religious denominations and the eagerness shown by them in adopting civilized habits and methods is most gratifying. These Indians have ever been friendly to the whites,

and there are many traditions extant of timely aid and kindness shown by them in the early days of immigration to the Pacific coast. The allotment of lands in severalty to these Indians by the Government, together with ample facilities for irrigating them, is most earnestly recommended.

The public schools of the county are in a flourishing condition, and are well provided for. Teachers employed, 98; number of private schools, 5; number of public schools, 87; pupils enrolled, 3,672; average salary paid, \$73; average months in school year, 7½. Add to the number of children enrolled (for isolated camps, absent and overlooked by census marshal) at least 35, which will place the enrollment at about what it should be.

The climate of Salt River Valley is not surpassed by any in the known world. The County has several health resorts, notably the Castle Creek and Agua Caliente hot springs. Maricopa County is rich in prehistoric relics. Ruins of ancient cities, towns and temples can be traced in many parts of the valley. Lieutenant Cushing, of the Hemmingway archaeological expedition, stated that he had traced the foundation of a city south of Tempe a distance of nearly six miles. He also expressed the opinion, from investigation, that what is now Maricopa County at one time contained a population many times greater than the entire population of the Territory. Many remains of ancient irrigation works are to be found, and some of them have been utilized by modern engineers.

The number of head of cattle fattened in Salt River Valley upon which taxes were paid in other counties, according to Mr. J. W. Benham, cattle inspector, was about 20,000. The number of horses, mules, sheep and hogs is not known, but was very large. The following are some of the products of the county which are exported every year in large quantities: Wheat, barley, fat cattle, hogs, sheep, straw, dried fruit, green fruit, bran, hides, wool, ore, honey, onyx, building stone, raisins, alfalfa hay, alfalfa seed, etc.

The county is deficient in commercial timber, though the mesquite and ironwood could be profitably utilized in the manufacture of furniture as a veneering. They are hard and durable, and susceptible of a very high polish. The colors are variegated and beautiful. At present they are

used for fuel, fence posts, etc. Cottonwood, lombardy and carolina poplar, mountain ash, and china umbrella trees all grow quickly and make beautiful avenues and shady parks. The cottonwood and poplar, cut green and planted as posts on border ditches, soon take root and become living posts for wire fences.

As an evidence of the steady growth of Maricopa County, and a proof that she has never yet been attacked by one of those fitful and frequently fatal fevers—an artificial boom—the subjoined copy of the assessment roll for the past ten years should be carefully examined:

	Value of Land and Improvements.	Personal property.
1884	\$1,114,453	\$ 963,517
1885	1,388,264	878,503
1886	1,427,223	915,087
1887	2,547,634	728,575
1888	3,326,874	734,048
1889	4,006,222	838,579
1890	4,481,053	1,062,851
1891	4,519,054	1,131,129
1892	5,017,600	1,201,450
1893	6,573,424	1,401,356
1894	6,868,510	1,279,518
1895	7,500,000	.....

The most convincing proof of the natural wealth that the land affords, and consequently of the self-sustaining power of this community, is the fact that it has grown to its present size without help, and—until a comparative recent date—without adequate communication with the outside world. From the very first it has manifested a sturdy independence.

The mountain regions of Maricopa County are rich in gold, silver and copper. They have been run over many times, and some rich finds have been made, but until very recently nothing like scientific prospecting has been resorted to. In the Superstition Mountains several rich discoveries have been made, and a mining camp (Goldfield) established, where at this time several mills are being erected. At Cave Creek, Castle Creek, Wickenburg, and among the Western ranges of mountains, and in the Harqua Hala district, unusual activity in prospecting and development work is going on. Placer mining is beginning to attract a great deal of interest. In many parts of the county, in the foothill valleys, many rich gold deposits are known to exist. As water for

working them is developed, the output from this source will be very considerable. Just what the output was for the year 1895 from these mines there is no means of knowing, even approximately. There are now (1895) in the county six mills in operation and in course of construction, all working on gold properties. Companies have been formed for the erection of two ten-stamp mills. For the want of cheaper transportation, several of the largest mills are now idle. This want will be supplied with the advent of additional railroad facilities. It is a very difficult matter to get at the actual output, as considerable amounts from placer mines are carried out by individuals or sold to parties unknown. Roughly estimated, these products amounted to over \$150,000 during the year 1895. As the mines are developed it will run into millions.

As early as 1863 the Vulture mine, fifty-eight miles northwest of Phoenix, was discovered and opened, and since then over \$10,000,000 has been taken from that alone. From the Harqua Halpa, discovered at an early day, immense sums have been realized. These and the others, discovered about the time the Vulture was opened, were the means of bringing many permanent settlers into the county, though at first they came slowly, fearing the bloody Apache.

In earlier descriptions of Maricopa County, too little attention has been paid to mining matters, and the Eastern reader has thereby been led to the conclusion that mines form no part of the features of the Salt River Valley. On the contrary, mining is an important factor in the prosperity of this region.

Maricopa County is a beautiful picture, a ravishing landscape scene set in a frame of silver and gold. The mountains which traverse her are filled with precious minerals, and a considerable part of the sustenance of her towns are drawn from mining camps lying either within the county or just beyond its boundaries, but tributary all the same. With additional railroad facilities, which are near at hand, Phoenix is destined to become the center of mining interests in the Territory as Denver is of the mining interests of Colorado and adjoining states and territories.

The nearest gold mine to Phoenix is that owned by W. T. Smith in the Maricopa Mountains, about seven miles south of the city. A great deal of money has been expended in open-

ing up the mine, and the ledge now exposed is from eight to twelve feet wide and carries an average of \$15 per ton in gold, some of the richest ore running over \$125 per ton in gold. There are quite a number of good-looking prospects in this range of hills which will ere long be made to yield up some of their golden treasures.

Winifred district is located about sixteen miles due north of Phoenix, and considerable work is now being carried out with very flattering results.

The Union mine is perhaps the best mine in the district to-day. It is developed by a good shaft to a depth of 400 feet from the surface. There are several veins on this property, the main ledge of which is about six feet wide and carries an average of \$16 per ton in gold, while some of the smaller veins have much richer ore. A good ten-stamp mill and hoisting works have been erected upon this property, and about ten men are now employed in development work.

The Aurum mine is owned by the Aurum Mining Company, of Phoenix, and is developed by an excellent shaft to a depth of eighty feet. The ledge is from four to six feet in width. About forty feet from the surface a rich streak of ore was struck about twelve to eighteen inches wide, assays from which give an average of over \$200 per ton in gold. The remainder of the vein runs about \$15 per ton. There are numerous other valuable prospects in this district, among which may be mentioned the "Summit," the "Lynx," "Sunset" and "Side Winder." The country rock is granite and slate, and the veins are composed of quartz containing iron and copper pyrites.

Cave Creek district is located twenty miles north of the Winifred district, or about thirty-six miles from Phoenix. Here is the great Phoenix mine, owned by the Phoenix Mining Company, of New York City, which is without doubt the most extensively developed property in Maricopa County. It is a veritable mountain of ore, and is opened up by several thousand feet of tunnels. The whole mass assays \$5.50 per ton in gold, although there are numerous rich streaks which run over \$50 per ton. The company have recently erected two new Marshall mills, each capable of crushing thirty tons per diem, and a series of Perfection concentrators. The cyanide (McArthur-Forest) process will be used to extract the gold and silver values from the concen-

trates, and it is the intention of the company to increase the milling capacity to 120 tons daily in the near future. Mr. W. B. Gillingham, the superintendent of the company, estimates the cost of mining and milling will not exceed \$1.25 per ton, and it is safe to say that under his able management this property will soon enter the dividend paying list. About thirty men are employed at mine and mill. The "Mormon Girl" group of mines promises to develop into a good paying property. The principal ledge is about twenty feet wide, and averages \$9 in gold, with considerable copper. Another group of mines in this district was recently bonded to Eastern capitalists, who will immediately proceed to develop them. Before leaving Cave Creek district mention should be made of the great onyx beds, situated about ten miles north of the Phoenix mine. This property was bonded last spring by J. H. Reynolds, and a large number of carloads of most elegant onyx were shipped to St. Louis and Chicago. The beds are as much as twenty-four feet in thickness in places, and several skilled masons are constantly employed at the quarry dressing large slabs of the valuable stone for shipmen to the East. A large company will shortly take hold of this property, and extensive operations will result.

Gold Hill district, situated about ten miles east of Cave Creek, has a number of promising properties.

Golden is the name of a camp situated in the Harqua Hala Mountains, just inside the Maricopa County line, about eighty miles west of Phoenix, and only eighteen miles from the famous Bonanza mine. It is only within the past year that anything has been known concerning this new gold camp.

The Bonanza mine has been written about of late so much that it is useless to reiterate the statements made regarding the value of the property. The mine is well known all over the United States, and we can only add that one month's production of gold was over \$73,000, and large bodies of ore are being opened up all the time. The Bonanza ranks high among the great producers of the age.

In the Wickenburg district everybody knows the history of the old Vulture mine. The town of Phoenix got its start from this wonderful old producer more than twenty-five years ago. The

mine is still being worked by T. E. Farish, and ten stamps are kept steadily pounding on rich gold ore.

The Relief mine is situated about twenty-two miles northwest of Phoenix. The vein is from twenty to thirty feet wide, and averages about \$11 in free gold per ton, while some of the richer ore runs away up into the hundreds. The property has a fifty-foot shaft sunk upon it, and two men are kept constantly at work sinking. A stamp mill will shortly be erected on this valuable property.

Humbug district is located in the Bradshaw range, fifty miles north and ten miles west of Phoenix. The country rock consists of granite, porphyry, gneiss and slate, and within a radius of two square miles more than 100 mining claims have been staked off, the greater majority of which will ere long be developed into paying mines. The ore is composed of quartz containing carbonates and sulphides of lead and iron and copper pyrites. The veins are from one to four feet wide and average from \$40 to \$50 per ton in gold, while ore running from \$200 to \$400 per ton is constantly being shipped. The principal mines are as follows: The Crescent, Buena Vista, Big Six, Sidewinder, The Mountain Chief (a well developed property), Little Joe, Spring Chicken, Bennett and Blue Bird. Ten stamp mills have been erected to work the ore from these mines. The stamps are all in place and ready to drop as soon as the rains give water. The ore will mill about 50 per cent free by amalgamation, and the tailings can be very economically treated and a high per cent saved by the cyanide process, a plant for which treatment has also been erected. There are also some valuable mines, among which may be mentioned the Beacon Light, Graphic and World's Fair. Messrs. Marlow and Waldin, of the Maricopa Gold and Silver Extraction Company, of this city, have become interested, and will erect a small mill and cyanide plant for the treatment of the ores from these mines. The machinery is now on the way, and will be put in place and running as soon as received. The ores from these mines give an average assay value of \$75 per ton.

There are numerous other good claims, some of which have considerable work done upon them. It may here be mentioned that one man has been working ore from his mines in arastras

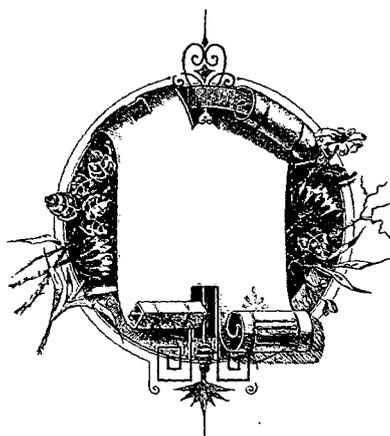


John A. Lutgerdson

for the past fifteen years, and has accumulated considerable wealth by this crude method of milling. There are about 100 men at work in and around this camp.

Tip Top is one of the oldest camps in the Territory, and is situated about four miles northeast of Humbug district. The old Tip Top mine,

now owned by a St. Louis company, has been developed to a depth of 800 feet, and produced some millions of dollars of rich silver ore. At present but little work is being done on this property. The Silver Museum is, perhaps, the best mine on Tip Top to-day, and is a regular shipper of high grade silver ore.



CHAPTER XXI.

MOHAVE COUNTY.

Mohave County was one of the earliest to be worked for its precious metals. It could be more readily reached from the Colorado River, and hence the Spaniards and Mexicans were early on the scene in search of gold and silver, and the priests of the Jesuit and Franciscan orders came also to found missions and work for the spiritual and moral welfare of the wild Hualapais. The latter were cruel and savage, and even after the Americans began to locate in the county for the purpose of working the mines, many were butchered, and their dust now lies on the mountains and in the valleys. Mining has been conducted continuously since 1864, at which time the California Volunteers subdued the Indians, and permitted the entrance of the settlers. But the real settlement did not begin until 1871, owing to the sullen hostility of the Indians. Then the fame of the mines began to spread, and within a very short time hundreds were claimed and opened, and the permanent settlement was assured. No doubt, however, the first permanent American settlements in the Territory were made by miners in the Hualapai, Peacock and Cerbat Mountains a little while before the Civil War.

Probably the earliest prospecting done in Mohave County was in 1857 and 1858, when several important discoveries were made in the Sacramento Valley, but it was not until 1863 that much progress was made. In that year over 2,500 locations were made in the Sacramento district. Owing to the bitter and uncompromising hostility of the Indians, however, no permanent settlement could be made there until 1871, and the following year a mill and furnace were started.

Mohave County* occupies the northwestern corner of the Territory, and is one of the four

*By Anson H. Smith, Kingman.

original political divisions into which Arizona was divided. Its area is 12,000 square miles, and its population at this time (1896) about 2,000. It contains many mountain ranges and broad valleys covered with nutritious grasses. Since its organization in 1864 it has been the scene of active mining operations. For years its only means of communication with the outer world was by the long and tedious and uncertain route of the Colorado River, consequently its progress was slow. Since the building of the Atlantic and Pacific Railroad its advantages are becoming known. With proper advertising and energy it will soon rank with the best of our counties in population and wealth. The assessed value of real and personal property for the year ended June 30, 1895, was \$970,923.86. The actual value was not less than \$3,000,000.

The number of acres of land under cultivation is estimated from reliable sources to be over 1,000, and the arid lands reclaimed during the year about 200 acres. There are few irrigation canals in the county. On the Big Sandy there are in the neighborhood of ten miles of main canal and over twenty-five miles of laterals. On the Colorado River a canal is about to be constructed which, when finished, will carry enough water to irrigate 250,000 acres of land. About 309 yards of the big ditch have been completed at the head of the canal to hold the right of way. Under this canal the lands are capable of raising every species of semitropical fruit in abundance.

There are in the county 4,000,000 acres of land that can be reclaimed. On the bottom lands along the Colorado River can be grown oranges, limes, lemons, bananas, pineapples, grapes, plums, nectarines, cherries, dates, figs and other fruits. Strawberries can be raised during every month

in the year, while watermelons have been kept as late as Christmas. In the valleys of the uplands the finest flavored peaches, pears, apples, plums, nectarines, quinces, figs and olives in the world have been grown. Kingman fruit is known all over the country for its splendid flavor, and commands nearly double the price of California fruit. The lands in the Hualapai Valley, of which there are 1,200,000 acres, will raise crops of small grain without irrigation, and if irrigated will raise any variety of crop known to this latitude.

The amount of barley produced in the county for the year 1894-95 is estimated at 100 tons, wheat 50,000 bushels, and corn ten tons. On the Big Sandy there are 400 stands of bees, from which a yearly product of twenty tons of honey is obtained. That section is the best in Arizona for bee culture, as during the greater part of the year there is an unparalleled fall of honey-dew. In fact, it is so great that the Indians gather it in large quantities from the under side of the flag leaves growing along the banks of the streams.

There is under orchard in this county about forty acres of land only, but the product is immense. From one acre of bearing fruit (peaches) last season, there were shipped to points along the railroad 1,700 boxes, while as much more was consumed in Kingman. The crop sold for \$1.40 per box, or a total of \$4,760 for the acre. The ranch from which this product was obtained lies two miles west of the town of Kingman, and is simply a sample of what can be done in the fruit raising business. The total value of the fruit crop of the county is in the neighborhood of \$25,000, or over \$500 per acre. The most profitable crop at present is peaches, but pears and apples follow close on the trail. Apricots ripen about the last of May, and peaches from the 10th to the 20th of June. Figs produce phenomenal crops, and if pressed or dried would pay handsomely; but the ranchers pay no attention to the crop, and allow it to rot on the ground. Quince, olive and almond trees yield large crops, and in fact no fruit that has been tried has proved a failure. The possibilities of this county in a horticultural and viticultural line are very great.

The cattle industry of the county, while not great, is slowly forging ahead. The drought of 1894 was a setback, but the excellent rains of the latter part of the year carried the stock through the winter in excellent shape. The county as-

essor was able to find but 27,027 head of cattle, but from information and actual knowledge the number will exceed 100,000. As assessed, there is a gain of 4,000 head over 1894, although there were shipped from the county fully 10,000 head in the last six months ending June 1895. The value was given at \$189,189, while the actual value is over \$700,000. Of horses there are 167; asses, 127; mules, 60; goats, 300. These animals, to obtain the correct number, should be multiplied by four.

During the year ending June 30, 1895, fifteen companies have been working on gold and silver mines in this county, while at least 100 more were operated by "chloriders" or tributers. Although the total number of miners at work did not exceed 250, the product of gold and silver was unusually large, exceeding that of any year in the county's history. From careful compilations, the value of silver in the ores shipped from Kingman and Hackberry stations amounted to \$817,192; base bullion shipped to smelter, \$187,000; gold bullion by express, \$27,000; bullion and gold dust sold to merchants and shipped out by private conveyance, \$11,000; gold in ores shipped to smelters, \$328,000; making a grand total of \$1,183,192 as the product of 250 men's labor for the year. Along the banks of the Colorado River and in the mountain canyons of the Cerbat and Black ranges are thousands of acres of rich placer ground that will be worked in the near future. In the past six months about twenty dry-wash machines have been brought in, and every operator is making money fanning out the sands. The coming year is one of promise for the gold industry of the county. In Cerbat, Grand Cliff and the Black ranges fully \$750,000 in gold will be the closest estimate of the output for 1895-96. This is based on the fact that four companies are now operating in these ranges, with an output of \$15,000 monthly each. The placer output will more than make up the balance of the estimate. Near Mineral Park there are several ledges of turquoise, worked in years gone by the Spaniards. The stones are of good color and hardness, and would no doubt prove profitable to an investor who understood his business.

The climate of Mohave County is delightful. In the mountains during the summer months the days and nights are deliciously cool, while in the

valleys during the winter the thermometer seldom falls below 18 degrees above. In the Hualapai Valley, one of the most beautiful on the coast, the temperature is very even and mild. The death rate in the county is lower than any other part of the coast, averaging six per 1,000 inhabitants. In the northeast portion of the county we have one of the greatest natural attractions in the world, the Grand and Diamond canyons. The distance from the railroad (Peach Springs) is only eighteen miles over a tolerably good road. The canyon at this point is really the greatest and most wonderful of any part of that great handiwork of nature. The cliffs range fully 6,000 feet above the bed of the river, and seem to come together at the top when viewed from the bottom of the canyon, and looking down from the dizzy height the river looks like a small silver thread. Besides the Grand Canyon there are many other remarkable ones of the Colorado in this county, notably Mohave, Boulder, Iceberg and Black canyons.

There are twelve schools in the county, thirteen teachers and an average attendance of 200 pupils. Kingman, the county seat, is erecting a handsome brick school house, capable of accommodating 200 children. Nine months is the school year. It is regrettable to state that there is but one church in the county, and that is the Methodist Episcopal church at Kingman. Two newspapers are published in Kingman—the "Mineral Wealth," Populist, and the "Mohave County Miner," Democratic. There are thirteen hotels and restaurants and eighteen saloons in the county. Attention is called to the great undeveloped resources of the county. Through an immense gorge in the northern part of the county flows the mighty Colorado River, and from it can be obtained by a system of pumps enough water to irrigate all the arid lands of the Territory. In the Hualapai Valley alone there are 1,200,000 acres of the richest land on the face of the earth, all subject to entry. The water runs through the canyon like a tail race, and will generate millions of horsepower, and this power can be utilized in pumping water onto the uplands. Capital to carry out this immense project is all that is necessary to develop these millions of acres. Hualapai Valley is overrun with the canaigre plant, and a factory to extract the tannic acid could be carried on successfully. Another industry that could be carried on here successfully is the pro-

duction of cement from the immense gypsum beds lying along the Colorado River northwest of Kingman. Tanneries could be run successfully at any of the towns along the line of the railroad. Mohave County offers an unexcelled field for the worker. In no place is the labor of the farmer, mechanic or miner better repaid than here. There are thousands of mines open to location in the mountains, while the valleys are rich and unsettled.

At one time crude ores from the mines of this county were shipped to England by way of the Gulf of California for reduction. Sampling works are in operation at Kingman. New mines are being discovered almost daily. In the western part of the Colorado is old Fort Mohave. In the northern part is part of the Hualapai Indian Reservation. The mines of the county, since the advent of the whites, have been worked for twenty-five years. Granite and porphyry prevail. Ores grading from \$200 to \$500 per ton are found. Gold, silver, copper, iron, lead, zinc, antimony and turquoise are the principal valuable ores. The large sampling works at Kingman were established in 1883. Five, ten and twenty-stamp mills are found throughout the county.

There is an extensive grazing tract of land in this county over which roam large herds of cattle. The principal agricultural section is in the valley of the Big Sandy, and embraces about 75,000 acres which can be readily irrigated. Other large tracts yield large returns to the agriculturist and horticulturist, among which are Hualapai Valley, seventy miles long and twenty miles wide. The soil—a sandy loam—is many feet thick. Sacramento Valley is eighty miles long and twenty miles wide, and is covered with natural grasses. Up in the northern part, bordering on Utah, is a valley sixty miles long and forty wide, where there are many large, pure springs. A Mormon colony occupies this valley and raises much fruit, grain and vegetables. They own large numbers of cattle. They have a sawmill on Mt. Trumbull, which is used to manufacture lumber from the white and yellow pine. In this portion of the country is an immense and very valuable timber belt.

Kingman has a population of about 500, and is located 3,600 feet above sea level. It is prosperous and growing. Mineral Park was formerly the county seat, and was the entrepot for supplies

for many neighboring mines and cattle ranges. Later Cerbat was. Kingman is on the Atlantic & Pacific Railroad. It has several hotels, restaurants, stores, saloons, a lumber yard, Methodist Episcopal Church, a good public school building, the county court house and jail, wagon and blacksmith shops, a newspaper—the "Mohave County Miner"—and is supplied with water from springs and wells at Oak Creek. At a depth of 100 feet water is found in abundance. It is the leading town of the county.

Mineral Park contains several good stores, one hotel, several saloons and shops, and is the center of a rich mineral district. The houses are of sundried brick and wood. The court house was formerly here. The public school building is a credit to the place. A quartz mill was started here as early as 1876.

Hackleberry and Signal are mining camps with about 200 population each. Several other places in the county are mere stations, with populations less than one hundred.



CHAPTER XXII.

NAVAJO COUNTY.

Navajo is the youngest county of Arizona, its creation dating from March 21, 1895, when the following act was approved by the Governor:

Be it enacted by the Legislative Assembly of the Territory of Arizona:

Section 1. There shall be, and is hereby formed out of the western portion of Apache County, in the Territory of Arizona, a new county, to be called and known as the County of Navajo.

Sec. 2. The boundaries of said Navajo County shall be as follows: Beginning at the northeast corner of Coconino County, thence east to the 110th degree of west longitude, thence south to southwest corner of Navajo Indian Reservation, thence east to a point intersecting ranges 23 and 24 east of Gila and Salt River meridian, thence south along said range line to its intersection with the north boundary line of Graham County, thence west along said northern boundary line to its intersection with the east boundary line of Gila County, which is the 110th degree of west longitude, thence north to its intersection with the 34th degree of north latitude, thence west to its intersection with the west boundary line of the White Mountain Indian Reservation, thence north to the place of beginning.

Sec. 3. The Governor of the Territory of Arizona is hereby authorized, empowered and directed to appoint all such county officers in the County of Navajo, upon the passage of this Act, as may be necessary to effect the complete county organization under the laws of the Territory. The probate judge, so appointed, shall qualify before any officer of the Territory of Arizona who is competent to administer oaths, and his bond shall be approved by the chairman of the Board of Supervisors of Apache County; and all other officers, so appointed, shall qualify before the

Probate Judge of Navajo County, and the bonds

of such officers shall be approved by said probate judge of Navajo County.

Sec. 4. All officers, appointed in the County of Navajo as hereinbefore provided, shall hold their respective offices until their successors shall be duly elected and qualified, and the officers so appointed shall be citizens and actual residents of the County of Navajo at the date of the passage of this Act.

Sec. 5. The Town of Holbrook is hereby designated as the temporary county seat of Navajo County, and a special election shall be held within one hundred days from the passage of this Act, to determine the location of the permanent county seat: and the Governor of the Territory is hereby empowered and directed to issue an election proclamation calling for said special election, and the Board of Supervisors of said Navajo County, shall cause such election proclamation to be published as provided by and in accordance with the election laws of this Territory.

Sec. 6. At said special election voters of said Navajo County may designate upon their ballots a place for the county seat of said Navajo County, and all such votes shall be received and returned as other votes, and the place receiving the highest number of votes shall immediately become the county seat of Navajo County.

Sec. 7. All Acts or parts of Acts relating to the county and precinct officers and their duties, and relating to elections now in force in this Territory and not conflicting with the provisions of this Act, are hereby extended to and made applicable to the County of Navajo; and the laws of a general nature now in force regulating the elections in this Territory shall apply to the special election ordered by this Act, and the election precincts already existing and established in the County of Navajo or within the boundaries of

said county, shall be and remain unchanged, except that the Board of Supervisors appointed by the Governor of this Territory shall have the right, if they so desire, to establish other voting precincts if they deem the same necessary, and shall order a registration of the electors of Navajo County prior to the special election of said Navajo County. Until such time as the Legislative Assembly of Arizona shall make a new apportionment, the following shall be the representation in the Territorial Legislature of Apache and Navajo Counties: For Navajo County there shall be elected at the election in 1896, one councilman and one member of the Assembly; for Apache County there shall be elected at the election in 1896 one councilman and one member of the Assembly.

Sec. 8. All precinct officers, elected in the County of Apache on the 6th day of November, 1894, who have duly qualified and who reside within the boundaries of said Navajo County, shall hold their respective offices until the general election in 1896, and no further bond shall be given by them or any of them. And all notaries public holding commissions in and for the county of Apache, and now residing within the boundaries of the proposed County of Navajo, shall be and are hereby authorized to act during their unexpired terms as notaries public in and for the County of Navajo. The said County of Navajo shall be attached to and become a part of the Fourth Judicial District of the Territory of Arizona, and one term of the District Court in and for said Navajo County shall be held at the county seat thereof, annually, on the second Monday in September.

Sec. 9. All actions of whatever kind or nature, now pending in the District or Probate Courts of Apache County, where the subject matter or property in controversy in said action is situated within the new County of Navajo, shall be transferred to the proper courts of said County of Navajo, for trial; and in all other actions now pending in said respective courts, where both plaintiffs and defendants are residents of said Navajo County, and said action does not relate to real estate in said County of Apache (if such action cannot be properly tried in the courts where they were situated), the same shall be transferred to the proper courts respectively of the said County of Navajo; and it is hereby made the duty of re-

spective clerks of the courts of the County of Apache, immediately upon the appointment and qualification of the clerks of the District and Probate Courts of said County of Navajo, to transmit to the clerks of the corresponding courts in said County of Navajo, all papers and files in said actions, together with a complete certified copy of all entries relating thereto, appearing upon the records of their respective courts, where the title of real estate is not involved; and in all actions pending in said courts in the County of Apache, wherein one of the parties is a resident of said County of Navajo, both parties consenting thereto by written stipulations filed with the clerks of said respective courts of Apache County, it shall be and is hereby made the duty of the clerks of the respective courts to transmit, immediately upon the filing of such stipulations, to the clerk of the proper court of Navajo County, all papers and pleadings in said actions, together with a certified copy of all entries thereto appearing upon the records of their respective courts; provided, however, that in all make such copy, or to transmit such papers, until civil actions, it shall not be the duty of such clerk to make such copy, or to transmit such papers, until his fees and compensation allowed therefor by this Act shall have been paid or tendered him; or until all costs, due such clerks and the sheriff of the said County of Apache, up to the time of the transfer, have been fully paid by the parties thereto, or one of them. In all actions transferred under the provisions of this Act, upon the receipt of such papers and pleadings, and such certified copies of the record in such action or actions, so transferred by the clerk to the proper court of said County of Navajo, the court to which the same is transferred shall acquire and become vested with the same jurisdiction, as if the action had been originally commenced in the said court in and for the said County of Navajo.

Sec. 10. In all cases so transferred from the District Courts of said County of Apache to the corresponding court of the County of Navajo, the clerks of the respective courts of Apache County shall be allowed the sum of ten cents per folio for making out a certified copy of the record in any case so transferred, and a further fee of one dollar (\$1.00) for transferring such certified copy of the record, together with all papers in

said action so transferred; such compensation and fee to be taxed as costs in said action.

Sec. 11. All records now existing in the office of the recorder of Apache County, of real and personal property situate and being in the County of Navajo, are hereby declared to be of the same force, effect and notice to third parties as if the same were recorded in the office of the county recorder of Navajo County; and a duly certified copy of any such record in the County of Apache, by the county recorder of said County of Apache, shall be of the same force and effect when presented in any of the courts of this Territory as if the same had been certified by the county recorder of Navajo County.

Sec. 12. The Board of Supervisors of Navajo County may employ the county recorder of Apache County to transcribe the records pertaining to real and personal property situate within the boundaries of Navajo County; and said Board of Supervisors of Navajo County may contract and agree with the recorder of Apache County for compensation for said services as they may deem just and proper; provided, however, that said Board of Supervisors of Navajo County shall in no event agree on a greater compensation for such services than ten cents (10) per folio for transcribing and certifying such records.

Sec. 13. All criminal actions now pending in the District Court of Apache County, where the offense was committed within the boundaries of said Navajo County, shall be transferred to the District Court of Navajo County.

Sec. 14. In all criminal cases transferred from the District Court of Apache County to the District Court of Navajo County, the clerk of the District Court of Apache County shall be allowed the sum of ten (10) cents per folio for making out a certified copy of the record in any criminal case so transferred, and a further fee of one dollar (\$1.00) for transferring such papers and certified copy of the record, together with all papers and pleadings in said action so transferred; said compensation and fee to be paid by the said County of Navajo.

Sec. 15. The members of the Board of Supervisors of the Counties of Apache and Navajo shall, on the second Monday in April, 1895, meet at the office of the clerk of the Board of Supervisors of Apache County, in St. Johns, and ascertain the value of the property both real and

personal in their respective counties, said valuation to be ascertained from the assessment roll of Apache County for the year 1894; the exact amount of the total indebtedness of the said Apache County at the date of the passage of this bill; the total value shown by the assessment roll for 1894, shall be the basis upon which the debt of the county shall be divided; and also determine the total value of all public buildings and bridges in existence at the time of the passage of this Act, and shall make a list of such buildings and bridges, showing value, location and whether in the County of Apache or Navajo, and shall make in duplicate itemized lists thereof, each of which lists shall be certified by the chairmen of the respective Boards of Supervisors as correct; one of which said lists shall be retained by each of the Boards of Supervisors as part of the public records of their respective counties.

Sec. 16. The total amount of the value of the public buildings and bridges, as found by the two boards, shall then be deducted from the total debt of the old County of Apache. They shall then divide the remainder pro rata between the Counties of Apache and Navajo, and Navajo County's portion of said total debt shall be such percentage of such debt as the property of said county shall bear to the total amount as determined by said Boards of Supervisors as provided in Section 15, and to Navajo County's proportion they shall add the total value of all public buildings and bridges lying within the boundaries of the new county. The results thus obtained shall be drawn up in a statement in duplicate certified by the chairman of the respective boards as correct, a copy of which statement shall be retained by each of the boards as part of the records of their respective counties, and together with the lists called for in Section 15 shall be duly spread upon the minutes of the respective boards. The total assessed valuation of all property as shown by the assessment roll of Apache County for 1894 is to be the basis used in apportioning the amount of the indebtedness of Apache County to the Counties of Navajo and Apache.

Sec. 17. The proportion thus found plus the present value of the public buildings and bridges lying within its boundaries shall be the indebtedness created and incurred by and on account



Charles J Mukan

of that portion of Apache County which comprises the said County of Navajo, and is all the legal existing indebtedness of said County of Navajo, for the payment of which the said County of Navajo is obligated, and which shall be paid by the said County of Navajo to the County of Apache, as hereinafter provided; and the total indebtedness of the County of Apache, at the date of the passage of this bill, shall be paid by the County of Apache; provided, however, that should the Board of Supervisors of either of said counties fail, refuse, or neglect to meet at the time and place for the purpose above mentioned, then the Board of Supervisors which does assemble, are hereby authorized to meet at the same time and place, and ascertain the exact amount of the total indebtedness of the said County of Apache at the date of the passage of this bill, and make duplicate itemized lists thereof, each of which said lists shall be certified by the Chairman of said Board of Supervisors, and said lists, so certified, shall be and become a record of each of said Counties of Apache and Navajo, as above provided.

Sec. 18. The Board of Supervisors of the said County of Navajo, as soon as the said indebtedness mentioned in the preceding section shall be ascertained, shall meet at the county seat of said County, and for the purpose of paying, redeeming and refunding the existing indebtedness of said county, as in the preceding section stated, issue negotiable, coupon bonds of said County of Navajo, bearing interest at the rate of six and one-half ($6\frac{1}{2}$) per cent. per annum, payable on the second day of January in each year. The principal and interest shall be payable in gold coin of the United States at the office of the Treasurer of said Apache County. Each of said bonds shall state upon its face the amount for which it is issued, which shall be in the sum of one thousand dollars, and a fractional amount for the last bond, when and where payable, date of issue, time and place of payment, payable to the County of Apache, Arizona, or its order, rate of interest, and recite that it is issued in conformity with this Act. The principal of said bonds shall be paid as follows: Ten (10) per cent. of the total amount issued, on January 2, 1898, and ten (10) per cent. of the total amount, issued annually thereafter, until all of said bonds shall be paid; provided, that the said Board of Supervisors of said Navajo

County may make all or any of said bonds redeemable at an earlier date. Said bonds shall be signed by the chairman of the said Board of Supervisors and bear the official seal of said board, and shall be signed by the treasurer of said county, and shall bear the seal of his office. They shall be consecutively numbered, and there shall be attached to each, and bearing the same number, annual interest coupons, covering the interest expressed in said bonds. Said coupons shall be signed by the chairman of said Board of Supervisors and by said treasurer, and shall be so affixed to said bonds as to be removed therefrom without mutilating the same; provided, that the bonds of Navajo County, issued under the provisions of this Act, may, at any time before they become due, be redeemed by said County of Navajo upon paying the holders thereof the amount of principal and interest then due thereon, or by giving in exchange therefor Territorial funding bonds of like amount, at the option of the holder of said bonds.

Sec. 19. The said bonds shall be at once delivered to the treasurer of Apache County, who shall receive the same as the property of said county, and shall stand charged upon his official bond for the same; and the said county of Apache is hereby authorized to take, own, and hold the said bonds, and through its Board of Supervisors dispose of and transfer the same for the benefits of said county; such transfer shall be made by the endorsement of the chairman of said board, attested by the clerk of said board, with the seal thereof; provided, that all moneys realized from the sale of such bonds shall be applied to the present existing indebtedness of Apache County.

Sec. 20. The Board of Supervisors of the said county of Navajo shall cause to be assessed and levied each year upon the taxable property of said county a sufficient sum to pay the interest on all bonds issued in pursuance of this act; provided, that in the year A. D. 1897, and every year thereafter until both the principal and interest of the bonds which have been issued under this act shall have been paid, the said Board of Supervisors shall levy such further and additional tax as may redeem such amount of bonds as they become due, and pay the interest thereon annually, as will insure the redemption of the whole of said bonds within ten years from the year 1898, and to the said year 1898, prepare the payment and redemp-

tion of said bonds by assessing and levying the taxes herein authorized and directed for that purpose, and all taxes shall be assessed, levied and collected in the manner and at the time provided by the general revenue laws of the Territory for levying taxes therein, and shall become a lien upon the property assessed, as in the case of other county taxes.

Sec. 21. If sufficient money shall not be realized each year from the collection of taxes to pay the principal and interest when due, the deficiency shall be paid by the treasurer out of the general fund of said county. If any money remains after paying such principal and interest, from the taxes collected each year for the payment of such interest, the surplus shall be paid by the treasurer into the general fund of said county.

Sec. 22. Until the bonds issued under this act are fully paid, including the interest thereon, the faith and credit of the county of Navajo, and all taxable property and all increase thereof within the limits of said county of Navajo, are, and shall continue, pledged, and said bonds shall be exempt from all taxation in this Territory. All costs and expenses incurred for providing and procuring the bonds under the provision of this act for the publication of notices, remitting funds for the payment of interest or principal of said bonds, and all other necessary incidental expenses, shall be credited and paid by the Board of Supervisors of said county of Navajo, out of the general fund of the county.

Sec. 23. At the date of this act, all money in the general, contingent, expense and school funds of said county of Apache, or otherwise in the treasury of said county not apportioned, distributed or actually disbursed to meet the requirements of special funds, and all other moneys hereafter collected for county purposes by either of said counties of Apache or Navajo, on assessments of property made in said county of Apache prior to 1895, shall be divided between the said counties in the same manner as is provided for dividing the indebtedness of Apache County in Sections 15 and 16 of this act, and the proportion thus found shall be the property of the respective counties, and the treasurer of Apache County is hereby authorized, empowered and directed to pay to the treasurer of Navajo County, upon order of the Board of Supervisors the amount which may be found to be due said Navajo County from the treasury

of Apache County; and the Board of Supervisors of the respective counties shall distribute and pay the said moneys accordingly; and it is hereby made the duty of the treasurer of Apache County to transmit to the treasurer of Navajo County, on or before May 1, 1895, a certified list of all delinquent taxes and debts of every description due to Apache County at the date of the passage of this act, and said taxes and debts shall be collected and paid to the respective counties in the proportion hereinbefore expressed, at least one in each quarter. For which certified list he shall be allowed a compensation to be paid by the county of Navajo, which shall not exceed that hereinbefore specified for transcript of other records.

Sec. 24. The public improvements of whatever kind that are within the boundaries of the respective counties of Apache and Navajo shall be and become the property of the county within which it is located, to the same extent and under the same restrictions and conditions to which it belonged to Apache County before the passage of this act.

Sec. 25. All acts or parts of acts in conflict with the provisions of this act are hereby repealed.

Sec. 26. This act shall take effect and be in force from and after its passage.

Approved this 21st day of March, 1895.

The county* is about 240 miles long, north and south, and about 53 miles wide, east and west, and contains about 10,000 square miles, or about one-tenth the total area of the Territory. The whole of the northern portion of the county is occupied by the Moqui and a part of the Navajo Indian reservations, while the southern portion is a part of the White Mountain Apache Indian reservation. The county proper, or that which is outside of Indian reservations and upon which white men have a little show to exist, is about 100 miles, north and south, by 53 miles, east and west. The county has a population of about 4,000, the principal towns being Winslow, Holbrook (the county seat), Snowflake, Taylor and St. Joseph. The principal industries of the county are cattle and sheep raising and farming.

There are in this county thousands of acres of the choicest kind of farming land and an abundance of good and pure water to irrigate the land with, the only thing required being a small amount of capital to be invested in reser-

*By J. H. Wallace, Winslow.

voirs to store the water for use during the irrigation season. There is a good demand and a home market for all the farm produce that can be grown here for years to come. The soil and climate, with the assistance of irrigation, produce in abundance the following crops: Alfalfa, wheat, oats, barley, corn, beans, potatoes and nearly all kinds of garden truck. The total amount of property in the county, as shown by the assessment roll for 1895, is \$1,100,000, and the rate of taxation is about 3 per cent. Among the industries which could be established with profit are large woolen mills, beet sugar refining works, a tannery, and the cultivation of the canaigre plant, a cheap and effective preparation for tanning hides.

Two hundred thousand acres of land are capable of reclamation, at an average cost per acre of less than \$2.50, upon which can be produced grain, corn, alfalfa, apples, peaches, melons, greens and an unlimited supply of sugar beets, it being stated by experts that no better land exists for the cultivation of this product than that which may be reclaimed.

There were produced in this county during the year 1894 18,000 bushels of grain, bringing \$1 per bushel; and 8,000 bushels of corn, worth from 60 to 75 cents per bushel; also 4,200 tons of hay, which sold at an average price of \$10 per ton. Wheat, corn, oats and alfalfa are most successfully produced. Bee culture has not been entered upon in this county. The dairy product for 1894 was only sufficient for home use, although it could easily be made much greater. There were 75,000 cattle on the ranges in this county. There were 7,500 horses, 125,000 sheep and 1,500 swine in the county, an increase during the year of 40 per cent. These were assessed at \$252,058, although the real value thereof was about \$500,000.

Navajo County is essentially an agricultural country; no mines have ever been discovered. With an average elevation of 5,000 feet, the climate of this county is healthy and invigorating. There is generally a light fall of snow during the winter months and frequent rains during the summer. In Snowflake, Arizona claims the best built town in the Territory, and scattered throughout the county are points of special interest, such as the famous petrified forest, splendid hunting and fishing grounds in the White Mountains, the painted desert, and the great natural bridge in

the northern part, while scattered from one end to the other are ruins of Aztec villages.

In 1894 there were ten public schools, employing fifteen teachers and attended by 600 scholars. The schools are open on an average of seven months during the year. There were seven churches in the county. Only one newspaper, the "Winslow Mail," is published in the county, being located at Winslow. Eight first-class hotels are in operation, with about the same number of restaurants. There are only six saloons in the entire county.

The population for the year ended June 30, 1895, was 4,000, as shown by the great register, school census, and other sources of information, an increase for the year of 1,000. The value of the taxable property, real, personal and mixed, as assessed, was \$1,110,063.07, and the estimated actual value thereof \$2,500,000. The area of land under cultivation is 6,000 acres, of which 1,000 acres have been reclaimed. Eighteen irrigation canals are in constant use, having a capacity of 4,000 miner's inches, with 45 miles of laterals. Of this number seven miles of laterals were constructed during the year ended June 30, 1895. Active preparations are now being made for the construction of sixty miles of canals in the northwestern part of the county, which will reclaim and make fertile 150,000 acres of land at an average cost of less than \$2.50 per acre. Work is now being pushed on eleven miles of canals, having a capacity of 17,500 inches. Twenty reservoirs can be used for storing the water. As yet no artesian wells have been developed.

The Navajo Indians of this county manufacture the famous Navajo blankets, which sell for as high as \$150. Extending across the county north of Holbrook and Winslow are immense beds of coal. This fuel is also found near Show Low in the southern part of the county, and another still farther south extending into the White Mountains. Thirty miles south of Navajo station are several salt lakes where an excellent quality of salt for the table and the dairy is obtained. Beef, mutton, wood, salt, hides, tallow, grain, timber, coal are among the valuable possessions of this county.

Holbrook, the county seat, has an altitude of 5,072 feet above the sea and is situated on the Atlantic & Pacific Railroad, on the Little Colorado River. Its population is about 500. It has

several good hotels and a number of prosperous business houses. Large numbers of cattle and sheep are annually shipped from this point. Immense quantities of supplies are freighted from Holbrook by wagon to Fort Apache and Pleasant Valley in Gila County. A fine agricultural country surrounds Holbrook—one of the best sections, in fact, in the Territory. A weekly paper is issued here. East of Holbrook is the famous "Petrified Forest."

Winslow, on the Atlantic & Pacific Railway, in the western part of the county, has a population of about 1,000, and is the largest town in Navajo County. It is headquarters of the railroad for this division and has the advantages of the round house, machine shops and car repair shops, which employ over one hundred and fifty men. It is a great shipping point for cattle, sheep, wool, hides, etc. Cattle from the Tonto basin in Gila County are driven here for shipment. Clear Creek supplies the town with water.

A prosperous little town is St. Joseph, ten miles west of Holbrook, on the Atlantic & Pacific Railroad. It has a population of several hundred, takes its water from the Little Colorado and is surrounded by a good agricultural country. The Mormons settled here in the '70s.

Woodruff stands 5,300 feet above sea level, is situated on Silver Creek twelve miles above Holbrook and has a population of about 300. Water is obtained from Silver Creek for purposes of irrigation. At a cost of \$15,000 a dam thirty-five feet high and 250 feet long was built a few years ago, but was afterward washed out. A rich agricultural country surrounds the town. The Mormons were early settlers here.

Snowflake is situated on Silver Creek and is one of the most substantial towns of the county, having good two-storied brick buildings and a population of about 600. It has a tannery and fine orchards adjacent. The Taylor and other canals from Snowflake Creek supply water. Several pretty residences may be seen here. The Mormons first settled here.

Taylor is also located on Silver Creek forty miles from Holbrook, and is supplied with water from that and Show Low creeks. Its population is about 250. Several thousand acres of cultivated land are near the town. The Mormons located here in the '70s.

Pinedale is a small town thirteen miles north-

west of Show Low. About fifteen hundred acres of land are cultivated near here, principally in grain and vegetables. Fruit does well in this locality.

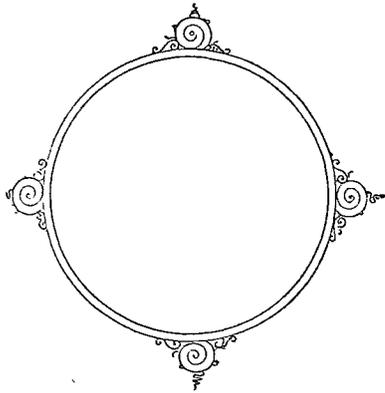
Show Low is situated about fifty miles from Holbrook and has a population of about 250. For many years it has been the principal rendezvous for the large sheep and cattle owners of this vicinity. About fifteen hundred acres are cultivated near here by irrigation, the water flowing from Show Low Creek.

It was in this county that Dr. Rothrock of the Wheeler expedition of 1876 reported having found five Mormon settlements on both sides of the Colorado Chiquito, numbering in all about 400 people. One of the upper settlements was situated at Camp Allen, thirty miles above Sunset Crossing. Still farther up at Horsehead Crossing was another settlement, where there were two stores, but settlers here were not Mormons. In 1877 the Allen settlement raised forty acres of corn, over 1,000 of wheat, some sugar cane, etc. About this time Frank Gray and others from these settlements went to Salt Lake City and brought back a threshing machine and a cane mill. The other settlements here were called Lake's, Smith's and Ballinger's. The following report to the "Deseret News" at Salt Lake City was made in 1877:

"We have built quite a number of houses besides a large hall over fifty feet in length and sixteen feet wide. We have a blacksmith shop, corals, stock yard and many other good and substantial improvements. Our land was well covered with a thick growth of rabbit and grease brush and large, dry cottonwood logs that had fallen to the ground, intermixed with large quantities of drift wood from the river. We have cleared many acres of land and sown and planted wheat, corn, squash, melons, sugar cane and a large variety of vegetables, all of which have done well considering the chance they have had. We think we shall have about 600 bushels of wheat and about the same amount of corn. We have some of the largest squashes I ever saw. Our melons are excellent, our cane is getting ripe and we shall soon commence making molasses. Our wheat is all in the shock and we are cutting and hauling our corn into the yard. Brother Ballinger's fort is a little more than a mile west of ours. They have had good crops of wheat,

corn and vegetables. Brothers Jackson and Blinkey have been to the timber country and made a molasses mill. Brothers Jackson and Garns have put the mill together and it is now running night and day grinding cane for Brother Ballinger and making a first-class article of molasses, clear as honey. Our grist mill has arrived and we are going to commence building a foundation at Brother Ballinger's dam close to the river, on which to erect a house for the machinery. So, if all's well, we will soon have a flour mill in actual operation. Brother Hartley, an experienced lime-burner, with others to assist him, has been to Sunset Pass and burned a kiln of lime for mortar for the mill foundation. So you see that we are progressing slowly but

surely. By the help of the Lord we are going to make a success of this mission. We want now to be properly organized into the United Order and then we are bound to prosper. We are trying to work in order. We should have one organization for all the camps or settlements. A military officer was at our camp yesterday. He was much surprised to see the great amount of work we had done in so short a time. We need some more good Latter-Day Saints to join us. We need a good shoemaker. Brother Ballinger needs a good blacksmith. Any and all other good, faithful saints that are willing to live in the United Order, come. Those who do not want to live in that order had better not come out here."



CHAPTER XXIII.

PIMA COUNTY.

Pima County was first settled permanently by white people in 1690, at which date the first mission in Arizona, that at Guevavi, was established. It has been claimed that settlements were made prior to this date, but the fact cannot be substantiated, or, at least, has not been substantiated at this date. Temporary missions may have been established in Arizona prior to 1690. In 1626 there were many missions in what is now New Mexico on the Rio Grande, and it is known that priests from that region occasionally penetrated into what is now Arizona. It is reasonable to conclude that they may have founded short-lived missions. The historian, however, is not searching for probabilities; he wants facts and plenty of them. In the absence of any facts to the contrary, it must be concluded, therefore, that the first settlement in Pima County and, in consequence, in Arizona, was made in 1690.

Back through the vistas of the ages a light had been kindled that was destined to grow brighter in the fullness of time, and illumine the pathway for coming feet. Among the first localities in which its penetrating rays appeared was Pima County. Here, in this matchless region, the immortal flame of religious life and accompanying blessings began their civilizing influences as early as 1690, when the mission at Guevavi, on the Santa Cruz, was established, and that of San Xavier del Bac, both near the city of Tucson. This, therefore, is the oldest county in the Territory. Rich in mines, in timber, in grazing land, in soil for grain or vine, in purest air and perpetual sunshine, Pima County offers every inducement, and more, for the capitalist, the merchant, the mechanic, the laborer, the tiller of the soil or he who seeks an ideal home, than any place elsewhere.

Pima was one of the first political divisions of Arizona organized under American rule, having

been made a county in 1864 by the first Territorial Legislature. It was, at first, bounded on the north by the Gila River, on the south by the boundary line of Sonora, on the west by the Gulf of California, and on the east by the line of 109 degrees west longitude, which limits included the greater part of the famous Gadsden purchase. Its bounds have, however, been gradually contracted by the cutting off from it of Cochise and parts of Pinal and Graham counties.

It now contains about 10,500 square miles and is bounded on the north by Maricopa and Pinal counties, on the east by Cochise County, on the west by Yuma, and on the south by the Mexican boundary line. The country around Tucson, which is the county seat and the oldest city in the Territory, consists of an alternation of lofty mountains, rolling foothills and grass-covered plains, and the same description fits the eastern portion of the county, stretching to the boundary line separating it from Cochise.

The northern part of the county consists of arid plains, the monotonous expanse of which is only broken by the abrupt and massive Santa Catalinas. The western portion is a vast rolling plain, with here and there a lone peak, or butte, rising out of it, and presenting a jagged, broken and uninviting appearance. Except for the mineral wealth contained in these rocky peaks they would offer no inducement whatever for the foot of man to explore them, for the surrounding plains are arid and covered with a sparse sprinkling of coarse grass and scrub mesquite. The total population of the county is nearly 20,000.

Pima County takes its name from a once powerful Indian tribe that dwelt within its lines. It is situated directly on the southern border of the Territory, and lies its full length on the northern boundary line of the Mexican State of Sonora. It is an area of splendid proportions, being one

hundred and seventy-three miles long, from east to west, and eighty miles wide on its eastern end, where it abuts on Cochise and Graham counties. This width is maintained for nearly seventy miles along its southern edge, at which point the international line suddenly deflects to the north and reduces the width of the county to about thirty miles on its western end where it adjoins Yuma County.

Its location is superior to that of any other county in the Territory, in that it forms the very gateway to the land of Mexico, and of natural right and recognized importance assumes and maintains the position of commercial and social center of the Territory's great southwest, Tucson being the central point of the source of supply for this magnificent domain as well as the vast contiguous region across the international line.

Standing upon the summit of some lordly peak of the Santa Catalinas, the observer will be amazed at the magnitude of the country's expanse, resembling, as it does to him, a vast plateau that blends in the distance with the horizon's blue. Here and there a mountain range appears in view, all of which seems small in comparison with the vast surrounding plain. But between these mountain chains, though unobserved by him, there lie great mesas of luxuriant grasses, and many valleys of proverbial richness, while here and there the hamlets, villages and towns or segregated habitations of men, bedeck the scene and send forth the hum of industry, while over all the spirit of sweet contentment and heavenly benison hovers in consecration of thrifty toil.

In the northwestern end of the county rise the Santa Catalinas, a bold and rugged range that towers above the plains to a height of 10,000 feet. To the west, at right angles with the eastern end of the Santa Catalinas, is the Rincon belt of hills, while still further to the south looms up the famous Santa Rita chain, the central figure of which, grand Mount Wrightson, stands highest of all in Southern Arizona. Between this and the Patagonia range is the fertile valley of the Sonoita, southeast of which are the Patagonias. Fifty miles westward of the Santa Ritas, which may properly be called the backbone of Southern Arizona, is the Barboquivari, on the apex of which no human foot has ever trod. To the northeast lies the Tucson, to the north the Cababi, to the

northwest the Quijotoa, to the west the Serra del Ojo. Southeast of the Barboquivari are the Las Gijas Pajarita and Tumocacori ranges.

In these vast belts of rock-ribbed hills, the scenery is grand beyond conception. Their granite heads, bold and destitute of other vegetation than scrub oak, pifon and pine, can be seen on clear days from a distance of hundreds of miles. Beneath the shadows of their lordly heads are to be found great forests of pine, cedar, quaking asp, ash, oak, cherry and walnut, grand and impressive in their quietude. Clear, bubbling streams of pure water rush down the mountain sides, and are drunk by the thirsty plains below. Ferns grow as high as a man's head, and to the geologist, naturalist and botanist the fauna and flora present a field not surpassed in the great Southwest. Locked in the treasure houses of the hills are mineral deposits of gold, silver, copper and lead, sufficient to make the world rich, and await but the touch of capital and enterprise to develop into veritable bonanzas. And the plains! They likewise possess every element of greatness and prosperity. What crude conditions may exist can easily be made to yield to the shapely moulding of intelligent hands and well directed energies.

The four principal valleys in the county are the Santa Cruz, the Sonoita, Altar and Santa Rosa. The two former are partially cultivated, the two latter practically untouched by the hands of man. The Santa Cruz, beginning below the Sonora boundary line, extends northward for a distance of one hundred miles before it opens into the wide, champaign country bordering the Gila River and possessing another name. The river drains an extent of country equal to an average width of fifteen miles on each side, and is fed by perpetual springs and streams of minor importance during its entire length. There are in the valley of the Santa Cruz River, and on the table lands in the great basin between the Santa Rita Mountains on the south, and the Rincon Mountains on the east, the Santa Catalinas on the north, and the Amote and Sierrita Mountains on the west, more than one million acres of land which are arable and can be brought under cultivation by irrigation. Much of it is now a dead country and has scarcely an inviting feature, but the cultivated portions must always attract the attention of the husbandman. They

show by their luxuriance what the surrounding country is capable of, and the time will soon come when from base to base of the towering hills roses will be made to bloom the year around and thousands of homes will spring up to beautify and adorn the land. This metamorphosis is the irrevocable destiny of Pima County, and it is being slowly but surely attained.

From the city of Tucson to the Gila River, and extending westward along the line of the railroad toward Casa Grande and Maricopa, there is a fertile plain upon which shrub and bush now grow without any artificial irrigation, and native grasses thrive luxuriantly. The soil is capable of producing any kind of fruit, vine or tree, and needs but the presence on its surface of the water that flows from only ten to sixty feet below, to transform it into a garden of perpetual bloom. Such is the case in almost every other portion of the county, and where water is used sufficient has been accomplished to demonstrate the success to be attained.

The principal resources of Pima County are mining, stock raising and agriculture. Little is being done in the first named industry at present, however, in comparison to what has been done, because of the continued depreciation of the white metal. The repeal of the purchasing clause of the Sherman act was the finishing stroke of gold-bug enmity for silver, and, in consequence, one of the most promising and extensive industries of this county was paralyzed. The results were the same all over the west; and while the debasement of the white metal continues there will be little, if any, increased activity in the silver mines of this district. But while much loss was entailed by the suspension of work in developing silver properties and the decreased production of silver-lead ores, some benefit accrued from the very seriousness of the situation. Mining men calmly reviewed the situation, noted the steady decline of silver and the continued inflation of gold, and then shut down their silver properties and began to look for gold. This was the general resultant course all through the territory, and the increase in the output of gold in 1895 is estimated at nearly one million and a quarter, the total output for the year ending December 31st being estimated at fully \$4,000,000.

In this county the results of gold prospecting have been highly encouraging. Nearly all of the

ore bodies encountered carry considerable in gold and operations in this direction are being continued with increasing extent. In the Greaterville district rich placers are being worked, and that locality is also rich in quartz carrying free gold. Such is the extent of the mineral bearing zone that mines have been discovered from the northern to the southern limits of the entire Empire Mining District, a distance of eighty-four miles. With the rehabilitation of silver, and increased capital power in the development of gold-bearing properties, the mining industry of this county will again come to the front and bear comparison for wealth and perpetuity with any district in the territory.

There is probably no other part of the globe better adapted to pastoral pursuits than the grazing lands of Pima County. They are a veritable mine of wealth untold, and with the climatic conditions prevailing, sufficient water supply and an abundance of grasses generously distributed by nature from the banks of the valley streams to the mountain ranges and highest peaks all that is required to make of Pima County a veritable Eden is increased irrigating facilities. At present there is an admirable system of canals in operation amounting to 110 miles in length, and serving with water fully 9,000 acres of land. But much of the cultivation of the soil and the county's settlement, outside of the towns, has been on the line of flowing streams, for there are probably not more than 10,000 acres successfully cultivated in the territory without the aid of irrigation, and these are to be found in the northern part in valleys of high altitude. The amount under irrigation in the valleys of this county, however, is exceedingly small. The land is chiefly used for stock-raising purposes, the vast ranges of the county being especially valuable for this industry; but there is no reason why thousands of acres of this magnificent domain should not be made to yield the splendid harvests of fruit and grain of which it is marvelously capable. In the Santa Cruz valley there is every opportunity for an especially large increase in the cultivation of the soil by means of artesian wells, as it has been demonstrated that water can readily be obtained at moderate depth almost anywhere. The subterranean bed of the Santa Cruz River, into which an enormous volume of water from the river disappears, keeps the gravel substance with



Wm. E. Thomas

which the valley is filled, from bedrock upward, saturated at all seasons of the year, and every indication leads to the belief that a bountiful flow of artesian water can be developed almost anywhere along its course. Irrigation in this county is no experiment. Long before our civilization spread its wings over this western land the ancient inhabitants of this region had successfully cultivated the soil by means of irrigation. The sites of ancient reservoirs and outlines of artificial water courses have been found in various districts throughout the county, leaving no shadow of a doubt that a dense population once lived and labored here.

The opportunities for profitable irrigation enterprises and extensive colonization of lands are great, inasmuch as the major portion of the surveyed soil is capable of the highest production. There are also superior reservoir sites so located as to be easily made to impound the drainage of large areas of mountainous country; where comparatively heavy rainfall forms torrential streams of insufficient continuity of flow for successful farming operations unless the waters be conserved. In the Santa Cruz valley several pumping plants are in successful operation for irrigating purposes, and this system is worthy of general consideration.

Throughout the valleys of the county the conditions are generally favorable and water can be pumped profitably. According to Prof. Edward M. Boggs, territorial irrigation engineer, and of the faculty of the University of Arizona, where a supply of water is ample, and the lift not too great, a complete pumping plant can be erected at a cost per acre not to exceed the usual charges for water rights under canals, and the annual cost of application will be no greater than the customary annual assessments or rental charges of canal companies.

In Egypt and India pumps are used in great numbers, and have been the means of reclaiming millions of acres of land. This is a system that is safe and requires but moderate outlay of capital. Artesian wells can be obtained, as has been stated previously, to the best of present knowledge and belief, from the subterranean flow of the Santa Cruz River. This is based upon the logical conclusion of the water's disappearance from the surface in large measure, and its truth has already been demonstrated. It is a

project, however, that is capable of considerable magnitude, and too great, probably, for the efforts of a single individual. Were it consummated, it would open up for settlement an immense acreage, converting it into orchards and farms, and would prove marvelously profitable. The value of similar reclaimed lands has been duly attested in California, and many a desert tract of only a few years ago is worth five hundred dollars an acre to-day. Many such opportunities await the coming of capital in this county.

The principal centers of wealth and population are the cities of Tucson, the county seat, and Nogales, the latter being situated on the Mexican line. A considerable part of the population is distributed among the towns of Harshaw, Crittenden, Calabases, Salero, Tubac, Greaterville, Total Wreck, Pantano, Arivaca, Quijotoa, Oro Blanco and several mining camps of less importance; and while agricultural and horticultural pursuits are as yet somewhat limited, the rural sections are being steadily extended and the population devoted to these vocations is rapidly increasing. When the various irrigating enterprises in view are consummated, or when more energy and individual effort are brought to bear toward securing the building of ditches and artesian wells, the latter being obtainable very easily at moderate depth throughout a wide range of country, the value of Pima County lands will draw thousands hitherward, accelerating the growth of population to such an extent that its prosperity will be unparalleled.

In the matter of transportation Tucson is well served. This city is the headquarters of a division of the Southern Pacific Railroad Company, being centrally located between Yuma on the west and El Paso on the east. The location of the division headquarters at this point means much in a commercial way for this city, inasmuch as from \$35,000 to \$40,000 are paid every month to its local employes. This goes toward increasing the circulating medium in our midst and augments the volume of trade considerably. The train service, both east and west, is unexcelled, and the freight rates are reasonable.

Here are located the machinery and shops necessary for the repairing of cars and engines run over this division. The shops are situated in the western portion of the city, in a rectangular tract of land granted by the corporation of Tuc-

son to the Southern Pacific Company for this purpose. They consist of a round house with twenty-five stalls for engines, a machine shop, car shop, blacksmith shop, carpenter, copper and boiler shop. Each one of these is completely outfitted with the necessary machinery, and they are capable of attending to the repairs of from sixty to eighty engines and cars. The machine department, which is under the supervision of the genial Master Mechanic Gray, is a most systematic and well-conducted establishment.

Since the organization of this county not one official has ever been derelict in his duty or recreant to his trust; never has a grand jury been called upon to indict or even question the standing of an officer of Pima County.

There may have been inferior men in office; men of poor judgment and weak nerve, but never men corrupt or dishonest. These, however, are negative virtues. On the other hand, scarcely a prominent business or professional man in this county to-day but what has had a share in county and local government; a fact significant of the class and standing of office-holders and the source of our political supply. What more pointed commentary can be given on the general condition of affairs here than this fact, that nine out of ten of all the United States officials sent out to Arizona in the past fifteen years from the East have become permanent citizens at the expiration of their term of office; have either entered into the practice of their profession, become merchants or invested their capital in lands, chattels or some other legitimate enterprises?

Pima County is peculiarly adapted to the stock-raising industry, and under present conditions, affecting mining affairs, it forms the principal and most valuable one in the county. It is a recognized fact, generally admitted, that the facilities afforded by nature in this county for the growing of horses, cattle and sheep are equal, if not superior, to those of any other portion of the United States. The ranges afford a great variety of feed for stock, popularly classed under the heads of grasses, both seed and root, browse and cacti. The tropical heat of the few summer months has been proven to be especially suitable for cattle, and during this time they thrive well. The mildness of the winter and the warm genial weather of the other months are found to be exceedingly well adapted to the growth and de-

velopment of all kinds of stock. No dreary blizzards and snow storms visit this section to make this industry one of anxiety and probable unprofitableness, nor is it necessary to cut, haul and store hay for the maintenance of cattle during any portion of the year. The whole territory offers special attractions to the stockman that are superior to those of any other state, but the principal grazing areas are found in Pima, Apache, Coconino and Yavapai counties. None of these counties, however, can surpass Pima either topographically or in the extent and value of the grazing areas. The following table gives the number and value of the live stock of this county as rendered each year from 1884 to the Territorial Board of Equalization, and will convey a fair idea of the extent of this industry during that time:

Year.	No. of Cattle.	Value.
1884	80,000	\$1,200,000.00
1885	70,000	885,000.00
1886	66,500	764,750.00
1887	83,234	999,892.00
1888	94,734	1,012,290.00
1889	109,206	952,961.50
1890	113,974	885,280.50
1891	121,370	960,892.12
1892	116,604	852,097.00
1893	49,599	347,542.77
1894	60,614	421,162.00

The cattle in this county are, as a rule, of very good grade. They have been obtained by the breeding up of Mexican stock by the intermixture of thoroughbred blood. The Mexican cow is a long-haired animal, good neither for beef nor for milking purposes, and only noted for its great hardiness. This breed is capable of withstanding long droughts, and can, without much fatigue, travel long distances for food and water. On the other hand, thoroughbred cattle possess all the qualities that adapt them to our vast ranges, except the remarkable hardiness of Mexican stock. A cross of these two kinds of blood has been found in this county to grow an animal both hardy and good. Some of the best herds of cattle have been bred up from Mexican cows by using high-grade Herefords or short-horn bulls. The first cross produces a calf which resembles American much more than Mexican cattle. The most progressive ranchers have large enclosures, fenced with barbed wire, wherein they breed reg-

istered and high-grade Hereford bulls to turn out on the range.

The following is the report for the fiscal year ending June 30, 1895:*

Number of public school districts in Pima County.....	25
Number of school teachers employed....	40
Number of pupils enrolled.....	1,660
Average number of months school was maintained during the year.....	6
Number of children of school age.....	3,501
Average attendance.....	892
Number of private schools in the county	5
Number of pupils attending private schools.....	500
Population (estimated).....	12,000
School population.....	3,501
Voting population.....	1,948

The Catholic, Episcopal, Methodist, Congregational and Baptist denominations have erected church edifices in the county. The Citizen, daily and weekly (Republican), Tucson; Star, daily and weekly (Democratic), Tucson; Fronterizo, Spanish weekly (independent), Tucson; Oasis, weekly (Republican), Nogales, and the Bordèr Vidette, weekly (Democratic), Nogales, constitute the press of the county at present. Tucson has five hotels and Nogales three. Restaurants—Tucson, seven; Nogales, four. Saloon—Tucson, fourteen; Nogales, four; and possibly one in each other town in the county. The undeveloped resources of Pima County are agriculture and mining.

Property.	Number.	Value.
Acres of land.....	55,725	\$207,971.00
Improvements.....		119,258.00
Town and city lots.....	1,465	.....
Improvements.....		974,389.00
Cattle.....	66,818	479,169.00
Horses.....	5,414	87,031.00
Mules.....	241	6,515.00
Sheep.....	2,134	3,203.00
Goats.....	644	980.00
Swine.....	367	927.00
Asses.....	75	479.00
Miles of railroad.....	117.4	587,000.00
Improvements.....		68,980.00
Rolling stock.....		118,198.53
All other property.....		498,969.00

*By Herbert Brown, Tucson.

Number of canals.....	90
Length of canals.....miles..	110
Present capacity to irrigate....acres..	9,000
Cost of construction.....	\$120,000
Canals, etc., constructed during the year.....	5
Canals or reservoirs under construction	3
Lands to be reclaimed thereby..acres..	17,000

The canals constructed can be enlarged, and with reservoirs for storage supply 300,000 acres can be irrigated.

Well water can be had in the Santa Cruz Valley at a depth of 25 to 100 feet. There are no flowing artesian wells. There are some fifteen or twenty bored wells from 400 to 800 feet in depth, water being pumped therefrom for cattle purposes.

County Lands.	Acres.
Total area.....	6,714,000
Surveyed lands.....	1,053,390
Unsurveyed lands.....	5,371,186
Unappropriated lands.....	6,431,576
Reserved lands.....	208,053
Disposed of lands.....	74,371

Ten per cent. of the land of Pima County can be successfully irrigated and reclaimed by a system of ditches, subdrainage pipes, and reservoirs for water storage, at a reasonable outlay, and 671,400 acres thus added to the cultivable area, at an average cost of reclamation of \$6 per acre. Wheat, barley, oats, alfalfa, hay, corn, sorghum, tobacco, potatoes, peas, beans, beets, all kinds of vegetables, fruit, etc., can be produced on these lands. The yield of wheat, barley and oats will be from 35 to 40 bushels per acre; corn, from 40 to 60 bushels; hay, 3 tons, and alfalfa, 5 to 7 tons.

There are 500 acres of land devoted to orchards—peaches, apricots, nectarines, apples, pears, quinces, figs, pomegranates, and grapes being the most profitable crops. Only about 10 per cent. of the present consumption of dairy products is produced in the county.

One hundred and fifty mines are at present (1895) being operated, embracing gold, silver, copper, and lead mines, and marble, building stone, and limestone quarries. The output of gold, silver, copper, and lead for the year (all shipped from Pima County) amounted to \$150,000. Gold and silver bullion and placer gold to the amount of \$175,000 was extracted.

The following mills are being operated in the county: Old Glory Mine, 2 Griffith's mills; McDonald Mine, 1-stamp mill; Montana Mine, 10-stamp mill; Hartt's Mine, 10-stamp mill; Austerlitz Mine, 2 Wiswold mills; Crocum Mine, 1 Wiswold mill; Yellow Jacket, 20-stamp mill; Sampson & Bent Mine, 10-stamp mill; Gunsight Mine, 1 Huntington mill; Day's Mine, 1 Huntington mill; Quijotoa Mine, 20-stamp mill; Saginaw Mine, 1 Huntington mill; Old Hermoso Mine, 1 Huntington mill; Arivaca Mine, 10-stamp mill. There are three smelters in the county, as follows: Tucson custom smelter, 2 copper stacks; Rosemont, 1 copper stack; Nogales custom smelter, 1 lead stack.

During the year 1895 considerable attention was given to gold mining. New developments have been made and machinery placed on the property. Water has been developed by sinking wells, and reservoirs have been constructed for storing water from the adjacent watersheds. All the new works were in active operation late in 1895. The lead and silver ores are shipped to Eastern smelters.

Considerable attention has been directed to copper properties. Regular shipments were made during the past year of a fine grade of carbonate ore, which was sent to El Paso from the Bates & Hughes property in the San Xavier district, and large shipments are being made—three or four carloads a day—at Crittenden from Washington Camp. The Rosemont Smelting Company has done a large amount of development work the past year. A 60-ton smelter has been placed at the mines, and has made a successful run of high-grade copper. Work is again resumed in developing the property. The Tucson Smelting Company has made several runs on custom work the past year, and are preparing to make regular runs from the Silver Bell district, San Xavier district, and other ores that may be offered. The outlook for mining the coming year is very flattering, and the returns may reach the \$1,000,000 limit. If more attention were turned to our placers, and reservoirs were constructed to store the water from our vast watersheds, the placer gold returns would materially increase the next year's estimates.

At Tucson the annual average rainfall is 11.97 inches, and the average temperature is 67.8 degrees.

Month.	Average rainfall.	Mean temperature.
January	0.822	48.4
February	1.14	52.4
March .....	.906	60.1
April .....	.21	66.2
May .....	.186	73.5
June .....	.255	81.4
July	2.636	88.3
August	2.667	85.1
September	1.106	78.9
October .....	.582	69.5
November .....	.509	57.6
December	1.18	50.7

The mesa lands are covered with mesquite trees, whose foliage and leaves furnish nutritious food to stock during the summer and fall months. There are two rainy seasons, producing a summer and winter grass. Oak trees grow at the base of the mountains, and fine forests of pine and fir grow on most of the mountain ranges, which are whitecapped during the winter months, supplying the mountain streams, especially the Santa Cruz and Rillito rivers with flood waters during the winter and spring months. Clouds hover over their summits, which are fanned by cool southwest winds passing down to the mesa below, creating a balmy atmosphere. This must be seen to be appreciated.

The old San Xavier del Bac Mission church, built by the padres for the Papago Indians, is in a good state of preservation. It is constructed on the Moorish style of architecture. Its age is unknown, but the year 1797 is marked upon the vestry door. The St. Augustine church was formerly three miles north of Tucson, on the Santa Cruz, but on account of age and decay and Indian troubles it was moved to where the governor's residence now stands. The chapel of the presidio has disappeared, and the present church of St. Augustine is of recent construction. The Escala Pura is an old ruin in the Santa Cruz Valley, under the lee of Sentinel and Saddle peaks. These peaks have old fortifications and lookouts for soldiers, placed there by the padres to protect the settlement from the dreaded Apaches. The old Tumacacori, San Jose, or San Cavetano, Tubac, and Arivaca missions are in ruins and level with mother earth.

Evidences of the cultivation of the soil by the Papagoes and mission padres are very plain at

the present date. From the old ruins and foundations of buildings, ditches are plainly discernible, and reservoirs, with a part of their embankment still in place, together with a vast amount of broken pottery, on both sides of the Santa Cruz and Rillito rivers. Fruit trees were still in existence within the past few years in the churchyard at Tumacacori, but vandals have destroyed them.

Col. Charles D. Poston and his exploring party in 1853 found Tubac abandoned by its Mexican garrison, and also by its other inhabitants, and the adobe houses were occupied by them during the winter of 1853-54. They passed the time in exploring the surrounding country for silver mines. Prospectors gathered there and several hundred people were soon on the ground.

At the date of the transfer of what is now Arizona by Mexico to the United States there were but two villages within its borders which contained Mexican or other white inhabitants, and these were Tubac and Tucson. Near each place were a few ranches which they cultivated. The old name of Tucson was Tulquson or Tuqueson. In 1840 there was a garrison of forty men at Tubac, and the place contained a population of about 400. In 1861 Tubac was the restored ruins of an old village occupied by a mixed population of Americans and Mexicans, and near by were camped over one hundred Papago Indians, but in 1863 the place was again in ruins.

As a matter of history it should be stated that Spanish records show that during the latter part of the eighteenth century no less than 200 silver mines were worked in Arizona and northern Sonora, nearly all the former being in what is now Pima County. The Spanish king arbitrarily claimed all the silver as the property of the Crown, to the great indignation of the people, who after that concealed as far as they were able the products of the mines.

One thing is certain: Unless the priests of 1690 to 1720 could live at the missions in Arizona without the protection of troops, they unquestionably were garrisoned at least at times. Or it may have been that the Papagoes and Pimas could and did repel the periodical attacks of the Apaches. It is a matter of history that about the beginning of the nineteenth century Tucson was garrisoned by from eighty to ninety troops. It consisted of about 140 adobe hovels and usually had a population of about 300 persons, who

lived miserably by cultivating small tracts of land near the fort and selling the produce to the Mexican Government. No extensive agricultural pursuits could be carried on, all such attempts being extremely limited owing to the fierce and frequent attacks of the Apaches. At one time, probably since the beginning of the nineteenth century, the place is said to have had a population of 1,000, and to have had an immense trade with Mexico. Usually the population was about 300. It is said that more than once over 1,000 Indians under able leaders made desperate and protracted efforts to capture Tucson, but they invariably failed. It was the most northerly Mexican settlement and was a constant hindrance to the Apache raids into Sonora, and the savages wanted to get rid of it. In 1856 the place had nearly 400 inhabitants, of whom about thirty were Americans. On the 21st of March, 1856, the first American store ever in the city was opened by Solomon Warner, who had come in from California with thirteen pack mules loaded with merchandise. This was only eleven days after the city had been evacuated by the Mexican troops in pursuance of the provisions of the Gadsden Purchase. At this time, 1856, the place had a flouring mill, and soon had another store. In 1858 the first United States mail coaches began to arrive. All this time the country here was a part of Santa Ana County, New Mexico, the county seat being Mesilla. In 1866 several large American mercantile houses opened up here and gave a great boom to the town. The first public school (American) was started in 1869 by Augustus Brichta. He had fifty-five scholars. The next session was held by John Spring. He taught fifteen months and enrolled 138 scholars.

The annals of Tucson, though of the most intense interest to the student of history, are largely lost in the mists of obscurity. For a period of nearly 200 years it was a walled fortress, protected by the swords and guns of Spanish troops. In fact, up until within the last forty years, the appearance of the town was severely war-like, as an immense wall in the form of a square inclosed the entire place, shutting out the Apaches and shutting in the inhabitants. The rear end or side of every house was built into and against this wall, and the only openings in the houses were the doors which led into the central

plaza. Two immense doors, built of heavy timbers and put solidly together, permitted ingress and egress to the central plaza and to the houses. The wall at the rear of all the houses was built four or five feet higher than the tops of the houses, and thus served as an excellent breastwork, behind which and from the flat roofs of the houses the inhabitants could fire upon an attacking force. The walled square of the town was about 250 feet across and was situated about 300 yards from the walled fort, which was also built in the form of a square. The fort wall was of adobe, about twelve feet high, and at the corners were four towers higher than the main wall and built so as to enfilade the walls their entire length. As a matter of fact the whole town was a fort, built so strongly and fortified so well that no body of Apaches likely to be brought against it could have any hope of reducing it. The result was that the town has withstood all attempts of the Indians to take it for 200 years. There seems to be no doubt that had it not been for the strong garrison of Spanish troops the place would have been early obliterated by the Indians. The latter were constantly on the watch to strike it a fatal blow. Its existence so far up in their territory was a constant thorn in their sides, and they did everything in their power to accomplish its destruction. But they failed. It seems clear that the fort was built by the Spaniards in 1694, at which date Tucson was permanently settled. Before that its occupancy by whites was due to the sufferance of the Indians—a sufferance which might be and was occasionally terminated by the treachery of the Apaches at any moment. In fact, several times after its origin it was completely destroyed by the Indians, and the priests and many of their followers murdered. The Papago Indians were friends of the whites at the start, and it must be said to their credit that many times Tucson was saved from the Apaches by their friendly aid.

During all of the Spanish occupancy of Tucson and a few others, there were no outlying settlements, owing to the incursions and ferocity of the dreaded Apaches. None could exist, as there were no troops to protect them. Movements by the inhabitants outside of the walled town were made under the protection of the troops. Over all the surrounding country and far south into Sonora, Mexico, constant incur-

sions were made by the fierce Apaches, who killed many of the inhabitants, made captives of others, and drove off their flocks and herds. The Santa Cruz Valley near the town and fort was cultivated by the garrison and the inhabitants, who managed thus to save enough from the Indians to support themselves. Their store supplies for many, many years came from Sonora, or farther south, and were brought here under the protection of troops. Almost daily the inhabitants and troops were called upon to defend themselves from cunning and desperate attacks of the war-like Apaches. A sudden attack would be made upon some venturesome settler, his family or his flock, and after swift and deadly action the wily Indian would scour away to his mountain fastnesses a little richer in cattle, sheep, horses, captives and scalps. Thus the town remained until the Americans tried to capture the fort and did capture the town in 1847, and thus it remained until turned over to the United States authorities.

In 1849, when the international boundary line was drawn, the garrison had largely increased and the town had trebled in size. Outside districts began to be settled, and the succeeding years saw the nucleus of the present commonwealth growing with steady pace, despite the many barriers that blocked its progress and the lurid tales that held immigration in check or drove it elsewhere. It was not, however, until 1870 that general conditions began to crystallize into modern form. The city of Tucson was then incorporated and new blood and energy were being infused in its veins. Long before the railroad entered the Territory, however, Tucson held the enviable position of commercial metropolis for Southern Arizona. The volume of its business then was not equaled by any other city of its size in the Union; for not only was it the sole source of supply to all points in the southern portion of the Territory, but its vast business interests extended all over the States of Sonora and Chihuahua, Mexico. It took at that period from four to six months' time for merchants to receive any goods, thus necessitating at all times not only large reserve stocks being kept on hand, but equal stocks of goods in transit, with still others starting out.

The advent of the railroad, in 1880, changed the order of things, however, very materially, and

to-day the commercial interests of the county are conducted upon the same principles as those of any other large mercantile center. But the railroad also accomplished many other things in the line of progress. With the increasing knowledge of Pima County's magnificent resources, other towns and cities sprang into existence.

Twenty-nine years ago Sam H. Drachman, one of Tucson's solid business men, arrived here. It was a typical frontier town, the Tucson of twenty-nine years ago. Lives were not worth much, money was plenty, prices were high, very high, and the Indians had full sway surrounding. Tucson then had a population of 1,300, by Mr. Drachman's estimate—300 Americans, a few, but a very few; of whom are left to-day, and a thousand Mexicans.

The sole support of the town was the government supplies. All were engaged in callings more or less tributary to the government paymasters, and when that was not in use, government vouchers, due on the next arrival of the paymaster, were current. Mexicans got out wood and hay and beef for the army. They would bring in a voucher for \$200 or \$300 for two or three months' work. This they would take to a merchant, trade some of it out, and get the balance in money. On the next arrival of the paymaster the merchant would get his coin.

The paymaster only arrived every six months. Then such a hurrah as did follow. Everybody had money, and plenty of it. Gambling was done in such a way that would make 1896 devotees of the Goddess Fortune open their eyes. Business boomed. The business would last for two or three months; then the era of vouchers would begin again.

Freighting then was naturally an important business. Merchandise was sent by water from San Francisco to the mouth of the Colorado; thence it was taken up the river in barges to Yuma. From Yuma it was freighted to Tucson in wagons that were almost like box cars. By the time merchandise had reached Tucson it had enhanced in value fifteen, twenty or fifty cents a pound from freight charges. A bar of soap, that sells now six for a quarter, then brought about fifty cents. Coffee was \$1 a pound; boots \$15 to \$25 a pair; flour was \$16 to \$18 per hundred pounds; 25 cents was the smallest money in use, just as a nickel is here to-day. Tuc-

son still has a tinge of "these good old times" about her, but in the time of 1896 there is much to be thankful for when compared to Mr. Drachman's Tucson of September, 1867.

After the Civil War its general importance began to demand a radical change in prevailing conditions. The American spirit of progress began to assert itself, and improvement began with increasing commercial enterprise. In 1870, "The Arizona Citizen" was established, and is now the oldest newspaper in the Territory. The irregularity of the streets at that time was beginning to be an eyesore to many, as it necessitated a continuance of their crooks and curves in the town's material expansion, and, so, on December 31, of that year. "The Citizen" pointed out the trouble and expense that would ultimately attend the reconstruction of narrow and irregular streets, when deferred until after adjacent lots had been improved, and urged the proper authorities to procure a survey and map of the town. In pursuance of the spirit of progress and municipal improvement thus awakened, a new era was begun, and on April 20, 1871, P. R. Tully, Estevan Ochoa, S. R. DeLong, Samuel Hughes, Solomon Warner, A. and L. Zeckendorf, H. S. Stevens, E. N. Fish & Co, J. W. Hopkins, Charles Lesinsky, S. Hughes, P. W. Dooper, A. T. Jones, W. S. Oury, S. H. Drachman and I. Goldberg petitioned the County Board of Supervisors for a municipal organization, and called attention to the acts of Congress by which towns or villages located upon public lands were entitled to the donation of a certain number of acres according to their population. It was shown that according to the census of 1870 Tucson had a population of 3,200 and was entitled to 1,920 acres. This, then, was the first step taken to secure title to the town, and, thereby, that every individual might be enabled to perfect his own. The election was held on May 17th, the same year, and was a quiet affair, only sixty-six votes being cast. No partisan feeling was exhibited, and the result of the vote was as follows: S. R. DeLong, mayor; Charles O. Brown, Samuel Hughes, W. W. Williams and W. S. Oury, aldermen; William Morgan, marshal; W. J. Osborne, assessor; Hiram S. Stevens, treasurer, and Juan Elias, poundmaster.

From this time on the city enjoyed a solid, healthy growth. Public improvements were the

order of the day; new buildings sprang up in striking contrast to the neighboring Mexican tendajons, or shops, of squalid appearance; and some attention was paid to architectural features in the erection of residences as well. The extension of streets to the points of the compass, of increased width, and with spacious sidewalks, also followed; and later on considerable attention was paid to the addition of lawns, foliage and flowers, to the ornamentation of the city, and the comfort and pleasure of its citizens.

But even to-day the remnants of the past conditions are still in existence. In certain quarters the narrow, winding, irregular streets remind one of some old provincial town of Spain. They are prolific of interest to the sight-seeing tourist, and are eloquent in their testimony to the antiquity of the "ancient and honorable pueblo," as the old seal used to read. A few of the ancient landmarks of more than ordinary interest also remain, chief among which are the meager ruins of the old wall, and the church on the outskirts of the city. The buildings and dwellings of the Mexican population, generally, are mostly the same low, one-story, adobe structures, with barred windows and whitewashed walls. Side by side the American, Mexican and Indian pursue the tenor of their way, smoothly, peacefully and successfully, and illustrate the progressive stages of modern civilization. The old things are passing away, and all things are becoming new. Gas and electricity have supplanted the gleam of greasewood and the tallow dip; freight wagons and stages have been considerably decreased by the coming of the railroad car, but the meek-eyed burro, as a beast of burden, seems indispensable to Mexican existence, and goes on his way rejoicing as of yore.

All around the city, and within its limits, agricultural and horticultural pursuits are followed, and cultivated by irrigation from the neighboring waters of the Santa Cruz. All the year round the grass and foliage is fresh and green, and flowers bloom continually. Magnificent public edifices adorn the city, and many charming homes, luxuriant and costly in their furnishings and elegant in design, add to the general beauty, and go to make up a place of superior attractions and unrivaled situation.

Because of this attractive location, and the marvelous climatic conditions, Tucson is becom-

ing the Mecca of the health-seeker. Its superiority in this direction has long been recognized and widely taken advantage of. It is a sanitarium par excellence. The dryness of the atmosphere, the perpetual sunshine of its days, and freedom from chilling winds and violent temperature changes, make of it a paradise for invalids. The most favorable conditions that obtain in Pima County are centered here for mental and physical recuperation.

The elevation of the city and vicinity ranges from two to four thousand feet above the level of the sea, and almost all around are mountains of majestic proportions and magnificent scenery. The annual rainfall seldom exceeds ten or eleven inches, the largest portion being precipitated during the summer months.

The elevation of the city proper is 2,400 feet, and this is an advantage, apart from other considerations, over many other resorts elsewhere. It is within one hundred feet of the limit of altitude where, in the opinion of prominent physicians, the cure of tuberculosis of the lungs is possible. Beyond that limit a cure is generally conditional. Those who have been cured at high altitudes, as a rule, are obliged to stay there, because after a residence there the air cells become much distended and do not easily accommodate themselves to the contraction which takes place through change to lower altitudes. High altitudes are also severe on those suffering with irritable conditions of the heart.

Of recent years rapid strides have been made in securing metropolitan facilities. The city began to take on more stylish garments. Brick and stone largely supplanted the venerable adobe in the erection of residences and business blocks; good sidewalks were laid on the principal thoroughfares, and broad, straight streets extended everywhere from the former narrow ones; a company of leading business men was incorporated for the purpose of supplying electric light and power; a gas company also entered the arena; and the old system of retailing water by the gallon was largely done away with by the construction of an excellent piping system. An extensive ice works was erected, and enterprising merchants improved and enlarged their business quarters. Elegant school and ecclesiastical structures were erected; an \$80,000 county court house and handsome buildings of the Territorial Uni-



M. WORMSER.

versity added to the beauty and symmetry of the town. The telephone system was also introduced, and several other facilities made to supplant the old methods.

In the matter of transportation, the city is well equipped. The Southern Pacific Railway passes through the city, and affords transportation east and west; and when the North and South Railroad, connecting the principal cities of the territory with the Atlantic and Pacific on the north, passing through Tucson and terminating at Guaymas, via Nogales on the south, is completed, it will not only accelerate the growth, but increase materially already extensive commerce.

Tucson is the most interesting city in Arizona. In point of fact we might go so far as to say that it is one of the most interesting in the United States, inasmuch as it is one of the oldest cities in the great American republic. This fact is not generally known, but a Spanish land grant has been recently unearthed which bears the date of 1552, though the city was not founded until 1690. The town is romantically situated in a broad, level valley, surrounded on every side by picturesque mountains. It is unlike any other city in Arizona, or, for that matter, in the United States. It bears a quaint and striking appearance, and one can spend days in noting its many strange sights. The magnificent buildings of the wonderful civilization of to-day, stand side by side with the severe one-story structures of a long ago. Many of the streets are narrow and tortuous, being walled in by square adobe houses, while others are wide and beautiful, and bordered on both sides by costly dwellings.

For many years Tucson was a dull, dead Mexican town, but to-day it is growing and advancing with wonderful strides. In every direction are to be found lands of the most fertile description, which in the near future will bear bountiful crops of delicious fruits or golden grain. Tucson is destined to become a great city. Its natural advantages are such as to almost defy the use of common figures in the calculation. Its people are refined and progressive, and a great many of the able, brilliant men of the territory have made this ancient city their permanent abode. It possesses many great institutions, both public and private.

The city has a population of nearly 6,000, and bears the reputation of being one of the most

orderly centers of the West. Few cities have so little crime. It was incorporated in 1870 and since then has had a well-conducted municipal government of mayor, city council, and police, fire, street and other departments. About half of the population is American and half Mexican.

One of the most pleasant features which is carried on in connection with the regular business of the Southern Pacific Company is the Library Association. The membership is limited exclusively to employes of the company. Each member is required to pay the nominal fee of fifty cents per month and is entitled to all the privileges which the institution affords. The library room is neatly fitted up and in addition to the books, which are nicely arranged in shelves and which number over one thousand volumes, it is provided with all the principal papers and periodicals and with a number of chess and checker tables, besides one magnificent billiard table. In connection with the library and adjoining it are good bath rooms, which are provided with hot and cold water and shower cocks. The business of the association is conducted through its officers and the success which it has acquired is due to their untiring efforts.

There are many places of interest surrounding the city of Tucson, and in Pima County generally. The old mission west of the town is an attractive sight to the stranger. Old Fort Lowell, eight miles from the city, is also a source of curiosity to many interested in the history of the Indian troubles. The fort was abandoned about four years ago, when the government drew in from the minor posts throughout the West. It is situated in Fort Lowell reservation on the Rillito, and is worthy of a visit.

The Tucson Public Library was created by an act of the City Council June 3, 1883. In the summer of 1886 the Tucson Private Library was turned over to the public library, and July 6, 1886, the doors were opened to the public, having 791 volumes and some government publications. At present there are about 1,600 volumes for circulation and 400 for reference. The library is open every evening during the week except Thursday.

Two miles from the city are the grounds of the Union Park Association. Here is located one of the finest half-mile oval-shaped tracks in the country. An elegant and expensive fence sur-

rounds the grounds, and the place is conducted in a progressive and sportsmanlike manner. This is due to the energy and sagacity of Mr. P. B. Zeigler, the popular president of the association, and in his management of the park he is ably assisted by the Board of Directors.

Tucson has two grist mills, wagon factories, gas works, water works, ice works, a tannery, a smelter, five large churches, two daily newspapers, an \$80,000 court house, five hotels, a theater, a \$50,000 school building, etc. Many United States officials reside here.

St. Joseph's Academy of Tucson offers to young ladies and children all the advantages of a thorough English and Spanish education. The academy buildings are the most spacious and commodious school buildings to be found in the territory. They are fitted up with all the modern improvements conducive to the health, happiness and comfort of the pupils. The Sisters who conduct the establishment consider themselves in conscience bound to respond to the confidence which parents and guardians place in them by giving their pupils a Christian and virtuous education; cultivating their manners and giving them all the mental, moral and physical care that they could receive under the paternal roof. Though the institution is a Catholic one, yet members from every denomination are received from all parts of the country. For the maintenance of order all the pupils are required to observe the regulations adopted for their improvement.

The course of instruction embraces Christian doctrine, orthography, reading, writing, grammar, composition, arithmetic, bookkeeping, algebra and geometry, modern and physical geography, with use of the globes, astronomy, history and biography, rhetoric, literature, natural philosophy and botany, French and Spanish; music on the piano, guitar and violin, drawing and painting in oil and water colors, plain and ornamental needle work, and all kinds of fancy work, calisthenics, etc.

This academy was started some twenty-three years ago and has maintained itself and its high reputation ever since. Sister Superior James Stanislaus is in charge of the school, which now numbers over one hundred pupils. The academic year is divided into two sessions of five months each. The first session commences on the first Monday in September and ends on the last day

of January. The second session commences on the first day of February and ends the last week of June. Besides occasional partial examinations during the year, general examinations take place toward the close of each session. That in June is followed by the distribution of premiums consisting of gold and silver medals, and a musical and dramatic performance. Pupils are received at any time and charged from date of entrance. No deduction will be made for absence (except in case of protracted illness), nor when pupils are withdrawn before the expiration of a session. References are required from strangers who desire to place their daughters or wards in the institution. Pupils should be supplied with sufficient clothing for the time they remain at the institution. Terms per session (in advance): Board and tuition, including bed and bedding, \$100; washing and mending, \$15; piano and use of instrument, \$25; guitar and use of instrument, \$25; French, \$15; drawing and painting, \$25; violin, \$25. Needle and fancy work are taught free of charge. All letters of inquiry are to be addressed to the Superioress, St. Joseph's Academy, from whom all additional information can be had on application.

*The first meeting of Masons held south of the Gila River, of which any record has been kept, was composed of the following brethren: A. C. Benedict, Martin Maloney, Jacob S. Mansfield, Joseph B. Creamer, R. N. Leatherwood, Charles T. Etchells and George J. Roskruge, who, on the 11th of April, 1875, met at the house of J. S. Mansfield "for the purpose of discussing the subject of forming a Masonic Club at Tucson." At a meeting held the week following the Tucson Masonic Club was formed, and Brother A. C. Benedict was elected chairman and George J. Roskruge secretary. The organization was kept alive until January, 1881, when it was resolved to petition the M. W. Grand Master of California, who, on the 17th day of February, 1881, issued a dispensation authorizing Ansel M. Bragg as W. M., George J. Roskruge as S. W., and Abraham Marx as J. W., and nineteen other brethren to form "Tucson Lodge," and on the 15th of October, 1881, a charter was, by the M. W. Grand Lodge of California, issued to the same officers and the lodge placed on the roll of the Grand

*Contributed by Gen. George J. Roskruge.

Lodge of California as "Tucson Lodge" No. 263. At the formation of the Grand Lodge of Arizona, on the 25th day of March, 1882, Tucson was designated as No. 4 on the roll of Arizona lodges.

GRAND LODGE F. & A. M. OF ARIZONA.

In February, 1882, the officers of Tucson Lodge No. 4, simultaneously with the officers of White Mountain Lodge No. 5, jurisdiction of New Mexico, and located at Globe, Gila County, issued a call requesting the several lodges of the Territory to elect delegates to meet at some convenient place for the purpose of considering the propriety of establishing a Grand Lodge of Free and Accepted Masons for the Territory of Arizona, and on the 23d of March, 1882, delegates from three chartered lodges, viz., "Arizona," located at Phoenix, with "White Mountain" and "Tucson," with delegates from "Solomon" Lodge, U. D., located at Tombstone, met at the Masonic Hall, in the city of Tucson, when Alonzo Bailey, W. M., of "White Mountain" Lodge No. 5, was called to the chair and G. J. Roskruge, of "Tucson" No. 263, was nominated as secretary. A constitution was adopted, officers elected and the Grand Lodge of Arizona was opened in ample form under the following grand officers:

- Ansel Mellen Bragg, Grand Master.
- John Taber Alsop, D. G. M.
- Alonzo Bailey, S. G. W.
- William Arthur Harwood, J. G. W.
- Abraham Marx, G. Treasurer.
- George James Roskruge, G. Secretary.
- Charles Moses Strauss, G. Chaplain.
- James Albert Zabriskie, G. Orator.
- James Brawner Creamer, G. Marshal.
- Josiah Brown, G. Bible Bearer.
- James Davidson Monihon, G. Standard Bearer.
- Thomas Robinson Sorin, G. Sword Bearer.
- Francis Asbury Shaw, Senior G. Deacon.
- Charles Atwood Fisk, Junior G. Deacon.
- Benjamin Titus, Senior Grand Std.
- William Tucker, Junior G. Std.
- William Downie, G. Pursuivant.
- Solon Mather Allis, G. Organist.
- James McCandless Elliott, G. Tyler.

The infant Grand Lodge commenced its existence with the following subordinate lodges borne on its roll:

- Aztlan No. 1, Prescott, 73 members.
- Arizona No. 2, Phoenix, 33 members.
- White Mountain No. 3, Globe, 27 members.
- Tucson No. 4, Tucson, 31 members.
- King Solomon No. 5, Tombstone, 60 members.
- Total, 274 members.

August, 1896, there were on the Grand Lodge roll the following subordinate lodges:

- Aztlan No. 1, Prescott, 86 members.
- Arizona No. 2, Phoenix, 31 members.
- White Mountain No. 3, Globe, 42 members.

- Tucson No. 4, Tucson, 69 members.
- King Solomon No. 5, Tombstone, 47 members.
- Chalcedony No. 6, Holbrook, 29 members.
- Flagstaff No. 7, Flagstaff, 41 members.
- Coronado No. 8, Clifton, 31 members.
- Gila Valley No. 9, Florence, 19 members.
- Willcox No. 10, Willcox, 21 members.
- Nogales No. 11, Nogales, 37 members.
- Perfect Ashlar, U. D., Bisbee, 24 members.
- Glendale, U. C., Glendale, 12 members.
- Winslow, U. C., Winslow, 30 members.
- Total, 569 members.

FUNDS INVESTED AND IN TREASURY

Widow and orphan fund.....	\$3,117 50
General fund.....	2,000 20
Total	\$5,127 70

Nogales is the second city in importance and population of Pima County. It has a population of over 2,500, is built on the international boundary line, and was originally called Line City. There is a Nogales in the United States which is pre-eminently a live American town, and there is a Nogales south of the international line, in Mexico, whose characteristics are wholly Mexican—what El Paso and Juarez are to Texas and Mexico, Nogales is to Arizona and New Mexico. The street running along the division line separating the two countries is called "International Street."

Nogales is the southern terminus of the New Mexico & Arizona Railroad, and the northern terminus of the Sonora Railroad, running south to Guaymas, on the Gulf of California, so that Nogales has direct railroad facilities to a shipping port. This little city is about nine years old, and is rapidly growing, and has a law-abiding, intelligent population. Its buildings are mostly built in a substantial, attractive manner, and its hotels are as good as may be found in the territory. Both our government and the Mexican government have located here custom houses and warehouses for bonded goods, and both governments have consulates. Both American and Mexican money are freely used as a circulating medium, the latter at a discount. The Nogales trade was largely augmented by the action of the Tucson merchants in refusing to continue receiving Mexican money for goods purchased for Sonora. As a natural consequence the Mexicans went where their money was received in exchange for goods they desired, and the trade drifted to a very large extent to Nogales, where the merchants adapted the prices of their merchandise to the discount on Mexican money, and were glad to receive that money in payment for goods sold. The mineral

country tributary to Nogales is rich in the precious metals, and will materially aid in building up the enterprising city of southern Pima County, as will likewise the extensive cattle industries carried on within a radius of fifteen miles from the town. A large smelter is one of the features of Nogales, it having been erected about five years ago, a large outlay of money being invested in the undertaking.

Two good newspapers are published at Nogales, and the stores are highly creditable. The newspapers are the Record and the Herald, both ably conducted with a good patronage. Excellent hotels may be found here; also first-class sampling works, large churches, a fine public school maintained ten months in the year, and large, well-stocked stores.

Nogales, owing to location, elevation, temperature, etc., affords one of the most healthy climates in America. The continual, steady growth of what a few years ago was but a half dozen adobe houses to a now prosperous little city of nearly three thousand inhabitants, is partly traceable to the benefits offered by this extraordinary salubrious climate. There is no rain in this region only during the very short rainy seasons occurring biannually, refreshing the endless variety of wild flowers that cover the picturesque hills, creating beautiful scenery. It is never damp, even during these rainy seasons, for a longer period than a few hours, owing to the fact that the town is located at the highest point in the valley that gently slopes north and south, forming a natural and perfect drainage, and the character of the soil is such as to permit the rapid absorption of moisture. The days are warm and bracing, and the nights cool and refreshing, making it a delightful climate for persons affected with chronic pulmonary diseases, more especially asthma and consumption, also acute rheumatism.

The old adobe town of Tubac was for a long time the principal town of Arizona. In 1850, as well as before and after that date, it was garrisoned with Mexican troops, and for a long time after Arizona was acquired from Mexico it was the center of all mining operations in the south of the large companies operating in the Salero district, the Cerro Colorado country, Arivaca, the Santa Ritas, and other active camps, having their headquarters at Tubac. Tubac was a presidio when the country belonged to Mexico. Its desir-

ability is very apparent when we reflect that it lies on the river, with an abundance of fine running water, surrounded by excellent agricultural country, and the center of a mining region not unknown even to the monarchs of Spain, who had derived wealth therefrom. At Tubac was also located the Mission of St. Gertrude, established about 1750. The town is in a dilapidated condition now and presents very little of the activity it is known to have possessed for more than a century prior to 1860. All the natural advantages it ever possessed it possesses to-day, and its advantages over those days of its prosperity are too marked to dwell at length upon, as it was the very hotbed of Apache deviltry up to 1865, and men worked at their peril and plowed their fields with their rifles strapped to their backs. When mining becomes active in Southern Arizona this old town must be the center of a considerable population. In the early days all the travel into what is now termed Arizona was along the old road through Tubac, the travelers debarking at some point on the Gulf of California and proceeding north along this route. The most magnificent mountain scenery in Pima County lies to the east of the town of Tubac, Mount Wrightson, or "Old Baldy," rising in majesty to an altitude of over 10,000 feet. Large game is common in this part of the Santa Ritas.

Perhaps no town in the wide world has had as much prominence or widespread notoriety for its size as the town of Calabasas. It is situated in the southern part of Pima County, ten miles north of the Mexican border, near the junction of the Santa Cruz and Senoita rivers, and on the line of the New Mexico & Arizona Railroad. Although at present small, it has many advantages which in course of natural progression must make it a thriving town in the future. A well-conducted school is in progress, it has the finest hotel in the territory, and other branches of trade are well patronized. The mail for Arivaca, Oro Blanco, Noonville, Salero and Tubac are distributed from this postoffice, requiring a considerable amount of labor. The farms in the vicinity are unusually thrifty, paying double for the amount of labor expended. The soil is exceedingly rich and productive, and all classes of cereals flourish. Fruits, with the exception of the citrus variety, do especially well. There is an abundance of water for irrigating purposes, and with a

small outlay of capital water enough to flood the whole valley could be developed. The altitude is about 3,400 feet, and the climate magnificent all the year round.

In addition to its agricultural advantages Calabaras is the nearest shipping point for the rich mines at Noonville, as well as those of Arivaca and Oro Blanco. A wagon road is partially completed between Calabaras and Arivaca, to be fully constructed the coming year. The Salero mining district, where extensive work is going on, is situated nine miles to the northeast. An unprejudiced prediction is entertained that there is a brilliant future for this beautiful valley of the Santa Cruz surrounding the town of Calabaras. There are numerous other villages and hamlets scattered throughout the county, and all possess a degree of prosperity commensurate with the size and growth.

At old Camp Crittenden, which the railroad passes through, is one of the loveliest portions of Arizona, the soil possessing vast capabilities, while the natural scenery is exquisite. A feature of this neighborhood is the prolific yield of orchard fruits that reach the markets of Arizona. Instead of the usually pinky apple of the artificially-irrigated sections of California you find here the same excellent, juicy apples of the East; and what may be said in favor of the apple, is equally applicable to the pears, peaches and apricots that are raised here. They all excel, and speak much for an altitude of 3,500 feet and upwards, for the successful cultivation of fruit in Southern Arizona, as the fruit trees near Camp Crittenden are over four thousand feet above sea-level.

Near Camp Crittenden is a practically inexhaustible supply of very superior hydraulic lime, extensively used throughout Southern Arizona. The Pennsylvania Ranch Company own extensive landed interests in this vicinity, and raise both cattle and horses successfully. Slightly northeast of Camp Crittenden, and about thirteen miles distant, is the Empire ranch, one of the most valuable ranch properties in the Territory. The entire country hereabouts is well watered and covered with nutritious grasses, whereupon graze thousands of fine cattle.

Greaterville is situated on the eastern slope of the Santa Rita Mountains, 6,000 feet above sea-level, and has a population of about 200.

Northwest from Greaterville, about twenty miles, and north from the Empire ranch about ten miles, is located the Empire mining district, in the Santa Rita Mountains. The Total Wreck mine is located here. This mine has produced a large quantity of silver, and has been extensively worked. The workings are 800 feet deep in some places, and new discoveries of the marvelously rich ore peculiar to the mine have been reported.

Camp Crittenden is at the head of the Senoita Canyon, which runs in a southwestern direction, spreading out into a wide valley at Crittenden, but farther to the south becoming narrower, merging into the Santa Cruz Valley at Calabaras. In the Senoita are found warm springs containing mineral properties. The formation is calcite. The New Mexico & Arizona Railroad is built through this canyon, and on account of the floods at certain seasons of the year, great trouble is experienced in maintaining the roadbed.

The town of Crittenden is located on the railroad, about seven miles south of Camp Crittenden, and about fifty miles south of Benson, the northern terminus of the railroad, or thirty-five miles directly south of the Southern Pacific Railroad. This prosperous little town is the shipping point of the surrounding rich country and is the nearest railroad town to Harshaw. Washington and Salero mining camps and the mining camps and large ranches in the Patagonia Mountains. The altitude of Crittenden is over four thousand feet.

Harshaw is situated about fifteen miles east of the railroad, and has a population of about three hundred and an altitude of 5,000 feet. The Hermosa mine, which has produced a veritable mint of money—something over a million dollars—is still actively worked, and its Huntington mill is kept constantly running on the ore produced from the mine. Forty men are employed in the mine. Going south on the road from Harshaw to Washington Camp are found the Old Mowry, and many other properties of great promise. The Mowry mine is located 6,100 feet above sea-level, and lies on the eastern slope of the Patagonia Mountains. The Trench mine is located two miles from the Mowry. With well-directed work, this mineral belt will prove very remunerative. The Trench mine is on the road to Mowry, and about two and one-half miles from Harshaw, and is a very promising property, and much work

has been done. The Maurice and Blue Nose are good claims, about two miles from Harshaw. The Golden Gate is four miles from Harshaw and three-quarters of a mile northeast of the old Mowry shaft. It has been worked for five years and work is still pushed on the property. The Olive, two miles west of Mowry, has been extensively worked and produces high-grade ore. The McNamee and Humboldt properties are northwest of the Trench, one mile and one-half mile distant, respectively. Both mines have been well opened up, and are being worked. Considerable ore of good quality has been produced.

The Red Rock district is located eight miles east of Crittenden. The mines of this district have been considerably developed, and work is being done at present. Washington Camp is situated south of Harshaw and east from Nogales. The ore bodies have been found large, with every appearance of being permanent. Farther to the south are the Patagonia and Duquesne mining camps.

In the southwest portion of Pima is situated Arivaca, and its broad intervals of rich bottom lands surrounding it. The creek furnishes sufficient water for irrigation, though much of the land is so moist naturally as to need drainage and cultivation rather than water. As fine potatoes, common or sweet, peas, beans, tomatoes, etc., have been cut and can be raised in this valley as men need to eat. An orchard of poorly-cultivated trees near the village produces, however, fine apples, evidencing the capabilities of the soil and climate for horticulture. Vegetables of all kinds can be freely grown, but as being the least troublesome and suiting the Mexicans, as needing the least capital and carrying the least work with it, the principal crop is barley. Agricultural efforts, it should be remembered, are quite recent, fencing fields and general cultivation being a new idea in this section. Large bands of cattle roam around here, this being the center of a large grazing region. When water is scarce in the hills or the grass green in the valley lands, they are at times almost black with stock. Arivaca village consists at present of a few Mexican shanties, a school-house, three saloons, and the neat, well-kept store and adjoining improvements of N. W. Bernard. Arivaca being on the high road from Sonora, and the most convenient business point for a great deal of sur-

rounding country, will naturally grow with the growth of the surrounding mining, stock and agricultural interests. From Arivaca westerly to the Baboquivari Valley, and southerly and easterly toward Oro Blanco, are valleys and openings suitable for homes, cultivation and improvements, with a climate, as a whole, not excelled by any portion of the United States, and the hills and mountains near by are seamed with mineral veins and mining indications that will yet, by their development, bring about the increased settlement of the rich lands contiguous and build up the town to prominent proportions.

Oro Blanco is a Spanish phrase, and means white gold, and is derived from the fact that the free and arrastre gold, formerly obtained by Mexicans in this section, carried at times a percentage of silver and was therefore somewhat white. There are several mines in this district that were worked by the Mexicans many years ago, some for gold and some for silver. As having been worked for silver may be mentioned the Commodore mine, in the southwestern corner, attention to which was first drawn by the large dump of refuse ore near by; but the shaft on the vein from which it was taken has not even yet been discovered, but the mine has produced since its ownership by Mr. J. Bartlett and others, and a subsequent company, much rich silver ore, some of it assaying in quantity from two hundred to seven hundred ounces in silver per ton, with specimens occasionally assaying in the thousands. This mine still produces ore of like character, and if thoroughly opened up, as we are informed is now contemplated, will doubtless produce very largely.

As having been worked for gold may be mentioned the Oro Blanco mine, and though now mostly filled up with debris, it shows several old shafts and long deep cuts from which, according to Mexican reports, large amounts of rich gold ore were extracted. Near by are other good gold prospects, and the remains of a large number of arrastres, scattered around can yet be seen. Other mines, the croppings of which were also worked for gold years ago, are such as the Austerlitz, Ostrich, and Yellow Jacket. Oro Blanco is a rich and extensive mining district, and now presents many desirable openings for mining enterprise.

The village of Oro Blanco itself is very pret-

tily situated in a rolling valley of about four thousand feet in altitude, surrounded on three sides by an amphitheater of hills and mountains, through which the roads from the mining sections, east, south and west, naturally converge to the valley. It contains a good school house, small store, postoffice, doctor's office, several private houses, with two or three cattle ranches further down the valley. It is a pleasant location, specially healthful, and well adapted for a mountain sanitarium, as well as for the homes of those interested in the neighboring mines, or in the stock business, and cannot fail to grow in connection with the general growth of surrounding interests.

Yellow Jacket mine is situated about two and a half miles westerly from Oro Blanco. About five hundred tons of ore from it was worked in the Old Ostrich mill about eighteen years ago, but the great expense of mining, hauling, and defective reduction in those days prevented continuous operations.

In the southerly neighborhood of the Yellow Jacket mine is the Old Ostrich mine. This mine turned out many years ago much rich gold ore, but, as with the Yellow Jacket, the difficulties of the period led to a suspension of operations; it is, however, considered a very valuable property that needs only a proper development to become a large producer. Other prominent claims northerly are the Yellowstone, Christmas Gift, and Chloride mines. The Yellowstone produces gold ores, has two shafts and an open cut, each showing good ores, and it is undoubtedly a valuable property. The Christmas Gift produces silver ores, some of which are very rich, assaying from two hundred to seven hundred ounces. The owners have shipped considerable fine ore therefrom to Tucson and elsewhere for several years. The Chloride mine is a gold prospect, is conveniently situated, and worthy of special effort. There are other fine prospect mines in this neigh-

borhood, and along this belt, which extend for several miles, with frequent croppings and mineral indications. In all the gulches more or less gold can be obtained by striking and washing. Water for this purpose, however, is scarce, except during the rainy season. About two miles southerly from the Yellow Jacket is the Moonlight mine; there is a good spring of water near by. At the head of the valley is a heavy cropping, and evidently very valuable group known in this section for years in general terms as the Austerlitz group. These mines, as far as surface indications and present developments extend, are among the most promising in Southern Arizona. To prove their value at depth they require of course deep workings, which as yet they have not received, the present owners, like most others in this district, being men of limited means. Commencing with the most northerly mine is the Ragnarock. A mill test of sixty-five tons yielded \$24 in silver and \$6 in gold; another lot of fourteen tons, \$38 in silver and \$9 in gold.

Baboquivari Peak is fifty miles south of Tucson and twenty miles west of Arivaca. The mines in this range of mountains are south of the peak; they were discovered by E. N. Hudson and Charles Bent in 1877. The Baboquivari Gold & Silver Mining Company are working these mines. They have a mill of twenty stamps. The owners of the mill and mines were E. N. Hudson, Charles Bent and A. B. Sampson. The mill is situated in a beautiful valley, at the foot of Mildred Peak, about four miles south of Baboquivari Peak, 4,500 feet above sea level. The principal mines are the Octopus group, the mineral being gold and silver of equal value per ton. The mountains are covered with white and black oak, water is pure and abundant, and the adjacent prairies are covered with nutritious grasses. The company commenced crushing ore November 22, 1889. At that time about forty men were employed.

CHAPTER XXIV.

PINAL COUNTY.

Pinal County, after its formation in 1875, yielded up a portion of its territory to form Gila County in 1881. It will be a happy day to the citizens of the county when the Pima and Maricopa Indian reservations are thrown open to settlement and when the lower Gila Valley in the county can be irrigated and farmed by the whites. The lands near the streams are extremely rich and productive. The grape, orange, and fig may be grown with great success on the plains. Grain grows luxuriantly, but is less profitable than fruit. The growth of alfalfa is enormous. The land in the Casa Grande Valley is free from alkali and is adapted to the cultivation of all products of the semi-tropical zone.

Pinal County* was organized in 1875 from portions of Pima, Maricopa and Yavapai counties, and contains an area of 5,368 square miles, or 3,435,520 acres, one-third of which could be made productive by a systematic storage of the surplus water now running to waste. Next to Maricopa it is the most important agricultural county in the Territory. It is traversed from east to west by the Southern Pacific Railroad, and a branch of the Santa Fe system is now approaching from the north, which will give it competing transportation rates. The Maricopa & Phoenix road is also building in this direction, and it is believed their objective point is the Deer Creek coal fields in the eastern portion of Pinal County. The population of the county by the last census was 4,251, and for the year 1895 increased fully 250, judging by the school census and number of registered voters.

The assessed valuation of property, real and personal, is \$1,540,764.67, which is probably less than one-half its real value, as land with water rights is only assessed at \$10 per acre and land without water rights at \$5 per acre. The fol-

lowing table will show in a condensed form the property of the county:

Number of acres with Government title.	47,174
Assessed valuation of same.	\$376,275
Assessed valuation of improvements on same	\$174,048
Number of cattle.	25,625
Number of horses	2,170
Number of sheep	3,300
Number of swine	347
Live stock, assessed valuation.	\$226,539
Live stock, actual value (estimated).	\$300,000

There are seventy-five miles of irrigating canals in the county, the principal one being the Florence Canal, forty-nine miles in length, with seventy-five miles of laterals. It has a reservoir which covers a surface of 1,600 acres, with an average depth of twelve feet, and contains about 8,000,000,000 gallons of water. In order to make the water system most effective, however, it will be necessary to build another reservoir at the Buttes, twelve miles above Florence. Lieut. W. A. Glassford, of the United States Army, has made a personal examination of the proposed site, and his report to the special Senate Committee on Irrigation and Reclamation of Arid Lands is well worthy a careful perusal. Other eminent engineers have also made favorable reports.

Arizona is at once the oldest and the newest country in what is now the United States. Three hundred and sixty years ago Alvar Cabeza de Vaca, Andreas Dorante, Alonzo del Castillo Maldonado, and Estevan, an Arabian negro, first set foot on Arizona soil. They were shipwrecked in 1527 on the coast of Florida, captured by the Indians, and held in captivity for seven years. Finally escaping, they made their way across the continent to New Mexico and Arizona, and thence to Culiacan, Mexico. They discovered

*By Charles D. Reppy, Florence.



E. W. Wells

the Mississippi ten years before De Soto stood upon its banks, and found semicivilization on the Rio Grande and in the Moqui and Zuni villages in Arizona more than a quarter of a century before the settlement of St. Augustine or Jamestown, and nearly a century before the Puritans landed on Plymouth Rock. Leaving the Moqui villages, Cabeza de Vaca and his party passed south and visited the Casa Grande ruins, ten miles from the present site of Florence, which were then ruins.

The land discovered by Cabeza de Vaca has proven to be most wonderfully fertile, and in no place in the United States can its like be found. Even in the sixteenth century remains were found of many ancient buildings and canals, while nothing is left to tell of the builders. There were no traditions among the Indian tribes then, and there are none now, to tell us of the people who erected those wonderful buildings eight and ten stories high, and who dug canals such as engineers of the present day pronounce to be works of skill. The old ruins are situated about ten miles south of Florence, and surrounding them are twenty-five townships (326,000 acres) of as beautiful and productive land as lies under the sun. It is useless to deny that under the present water system there is nothing like sufficient water to irrigate this vast body of land.

The Casa Grande Valley Canal is forty-nine miles in length, and covers 60,000 acres of land, about 7,000 of which are under cultivation. It is so constructed that it can be easily enlarged and its capacity increased. The reservoir referred to furnishes an ample supply of water the year round to all farmers located below it, but those above suffer by a shortage of water during a few weeks in summer. This, however, would be remedied by the construction of the Butte reservoir, and besides would furnish an unlimited supply of water for the Indians on the Sacaton Reservation.

Florence, the county seat, is another Phoenix in the beauty of its situation, its shaded streets with streams of water running along each side of them, and a rich agricultural district on every side of it. It stands nearly on the bank of the Gila River, being only about half a mile away from it, and is eighty miles north of Tucson. Casa Grande station, on the line of the Southern Pacific Railroad, is twenty-six miles distant, and

daily communication is maintained between the city and that point by a well-appointed and well-conducted stage line. Florence is, like Jerusalem of old, "beautiful for situation," and is, moreover, possessed of all the natural advantages that go to make a great and flourishing city. There is nothing, indeed, that can prevent Florence from attaining to a foremost place among the cities of the Territory but supineness and indifference on the part of her citizens, and those are faults that certainly cannot be charged against the energetic and public-spirited people who occupy the city now. There is not the slightest danger, either, that there will be any falling off of enterprise among future citizens of Florence, for the conditions which tend to foster progress and development are at once so plentiful and so propitious that the inhabitants must, perforce, go ahead in the interests of their city. They cannot well help themselves.

The general run of the buildings are, as befits the country and the Mexicans who so long occupied it, one story in height and of adobe, but there are a large number of business houses, public buildings, churches, schools, etc., where other and more sightly materials are employed. The population is about 1,500, and the city stands 1,553 feet above the level of the sea. There are many beautiful private residences in it, and an excellent graded school in which five teachers are employed. There is one newspaper doing well, and giving the news of the day in a very bright and readable form. The new court house, when completed, will cost at least \$30,000.

Twenty-eight miles to the north of Florence is the town of Pinal, which is an important mining center. Reymert Camp is also a flourishing little town. Mammoth, an enterprising town in the foothills of the Santa Catalinas, has a population of about 500. Maricopa station, on the Southern Pacific, will some day be an important town. At the present time the population mainly consists of people employed by the railroad.

Going and coming stages run by the old Casa Grande ruins, and passengers are allowed a short time to inspect them. There are many handsome private residences in Florence, several brick stores, a good hotel, an excellent graded school employing four teachers, churches, secret societies, a commercial club, a weekly newspaper (the Tribune, the only one in the county), and the

handsomest court house in the Territory. Here is held the United States court for the district composed of Gila, Graham and Pinal counties. The streets are lined with shade trees, which impart an air of comfort on the warmest days. Sunstrokes are unknown in this climate. The air is so dry here that a registered temperature of 110 degrees is not as oppressive as 80 degrees in St. Louis or New York.

The advent of the railroad in 1880 opened this country to quicker and more satisfactory settlement. The cattle and mining industries were the more directly benefited. Those sections along the Gila River enjoying the privilege of water were given over to agriculture, supplying camps and towns with produce. A new era dawned when the canal was completed, carrying water forty miles to the south and west, affording ample opportunity for extensive ranching to the home seeker and the health hunter. During the past five years not a rancher has given up his holdings, nor has one moved away, but each is annually improving and extending his acreage, while new settlers and locators are constantly coming in. "Things do grow," or people would quit. Nowhere else is as salubrious a climate found; no other land in any other section produces as much to the acre, in such abundance and variety and with such ease. "Sow and ye shall reap," is the legend over the doorway which leads into the Casa Grande Valley. Success has attended the efforts of every farmer. There are now under ownership and approaching cultivation some 13,000 acres in the district named. As in other farming sections, all of this is neither fenced nor producing, but is and will be used for pasture. With a few exceptions the holdings of individuals or firms range from 80 acres to 640 acres, it being safe to say that 75 per cent of such are homesteads, and that 60 per cent have also full-paid water rights. This betokens a healthy condition, and one that gradually bears its own weight of prosperity.

The silver mines of Pinal County, being largely low-grade propositions, the output of the white metal has been next to nothing for the year 1895, the present price being so low that they can not be worked at a profit. The Silver King is an exception, and work has been recently started up on this property, which has in times past paid over \$2,000,000 in dividends to its stockholders.

In gold mining, however, there has been considerable activity at Mammoth, Goldfield, Ripsey and other points, and the bullion output of gold for the year has been about \$250,000. With the new machinery that is being put in this will easily be doubled the coming year. The principal mines of the county are the Silver King and Reymert (both silver and each with 20-stamp mills), the Reward (copper), and the following gold mines:

	Stamps.
Mammoth, at Mammoth.....	50
Mammoth, at Goldfield.....	20
Mohawk, at Mammoth.....	50
Bulldog, at Goldfield.....	10
Reksom, at Mineral Creek.....	5
Mammon, south of Casa Grande.....	20
Victoria, south of Casa Grande.....	10
Southern Belle, at Catalinas.....	20
Norman, at Ripsey.....	20

A small amount of placer gold has been taken out in the Catalinas and sold in Tucson. There is an evidence of awakening in all classes of mining, and the prospect for the coming year is very flattering.

Twenty-eight miles to the north of Florence is the town of Pinal, in the stormy days of Apache warfare called Picket Post. This camp, located in a gap between the Superstition and Pinal mountains, for many years was one of the liveliest in the Territory. The twenty-stamp mill of the Silver King mine was located here, and prospecting in the mountains around was continuous and development upon every claim active. The mill is now silent, the miners having gone to newer fields and the camp is under somewhat of an eclipse.

Silver King is located up a steep mountain road, five miles distant from Pinal. Here the extensive hoisting works of the Silver King is the most prominent feature of the landscape. This mine has produced several millions of dollars in its time. The mine is celebrated in the history of Arizona. Prospectors had passed a tall pillar of black "lead" repeatedly, and it was not until 1875 that the mass of metal exposed was found to be almost pure silver. The ore in development was found to lie in a "chimney," almost vertical, and was of a richness doubtless never exceeded in any considerable body ever worked elsewhere. The pay ore failed at the 800-foot level, and the chimney was cleared of what remained of the

precious metal and abandoned. Silver King is now important chiefly by its position at the entrance to the short trail to Globe, over which are packed most of the copper camp's supplies. About twelve miles southeast of Pinal is the flourishing Reymert Camp. Here is located the smelter of the DeNoon mines, a group that is producing silver ore in a manner that must be gratifying in the extreme to the owners.

At the extreme eastern edge of the county, within the White Mountain Reservation, lie the Lower Deer Creek coal fields, the body of mineral extending over to a considerable distance into Graham County. Efforts are being made to have this portion of the reservation thrown open for location, as it is useless to the Indians while containing treasure that gives to its hills the greatest value in the eyes of the progressive whites. Not only is there coal, but there are excellent prospects of copper, lead and silver. The Tucson & Globe Railroad was intended to tap these coal beds, and if the reservation should be so abridged as to leave the beds outside its line, the Southern Pacific would find it profitable to run a branch to the mines. The opening of the coal fields would be of the greatest benefit to Globe. The coal cokes very well, and the coke could be delivered to the smelters of the copper camp at a much lower price than they now pay for coke transported from Colorado and Pennsylvania.

In the foothills of the Santa Catalina range of mountains, on the San Pedro River, in the southeastern portion of Pinal County, is the thriving settlement of Mammoth. The camp has a population of about 500, nearly all dependent upon the Mammoth group of mines for a livelihood. The mill of the company constitutes the chief industry of the town. The mill, one of fifty stamps, consumes about 100 tons of ore per diem. The probability is that the mill will be doubled in size, as there is enough ore in sight in the mine to run even such a great plant with success for five years. The mine is located in what is known as the Black Hills, three miles back from the river, and at an elevation of 800 feet above the stream. The ore body is very large, and has been opened up for 700 feet along the ledge to a depth of over 500 feet. It is to be remarked that the mine is perfectly dry in all portions. The ore is gold, usually found in a red oxide of iron, though lead is encountered in some portions of the property.

Bunker Hill district is a promising mining section on the north side of the San Pedro in the Galluria range. Much chloriding is being done. The Table Mountain and other copper properties in this neighborhood are attracting much attention. Up the river from Florence, the country is highly mineralized, silver, gold, lead and copper being found in many forms and in great abundance. Only a few mines are working, the majority lying dormant till awakened by the touch of capital. Active work is being prosecuted on a number of mines in the Owl Heads district, north of Red Rock station, on the Southern Pacific.

One of the very best mining districts in the county, in point of production is that to the south of Casa Grande station. The principal mine is the Vekol, a vast deposit of ore, in chambers rather than in ledge formations. It was long worked by means of Indian labor, in a very crude manner, but lately a mill and hoisting works have been erected and the output of bullion under skilled management has been largely increased. The Copperosity mine lies between the Vekol and the railroad. It displays a fine grade of high-grade copper ore, as do a number of other prospects in the neighborhood. All of the desert hills in this neighborhood are rich in mineral.

Casa Grande and the adjoining districts are supplied from Casa Grande station, where a thriving town has sprung up, sustained by its forwarding business to points in Gila and Pinal counties and by the mining trade. Should the Florence canal prove a success, agriculture will add a material support to the ambitious little town. It now claims a population of about 500.

Maricopa station, on the Southern Pacific, is one of the termini of the Maricopa & Phoenix Railroad. It has a small population, sustained entirely by the railroad freight and passenger traffic. The Maricopa & Phoenix is a broad-gauge and well-equipped road, comparing favorably with any of the short lines of the West. It has aided materially in developing the rich agricultural country that lies thirty miles to the northward. Near Maricopa an attempt is being made to establish a raisin vineyard of large extent, water for irrigation being furnished by means of a well and steam pumps.

The settlement of Riverside, on the Gila River, about forty miles east of Florence, is now little

more than a stage station on the round-about road upon which freight is hauled to Globe. It is in the midst of a good mining country, the development of which may soon cause Riverside to materialize into a town of some prominence.

The ruins of Casa Grande are passed on the stage road between the station of that name and Florence, about six miles south of the latter place. Though in the Salt River Valley are to be found more extensive remains of the dwellings of the Toltec era, this is the best preserved of all the ancient buildings of the lower valleys. It would seem as though the white man's civilization were having a most damaging effect upon the structure, for the walls are crumbling, the interior partitions are nearly gone and the time is rapidly approaching when the old castle will be in no respects dissimilar to the many other great mounds that lie scattered about the plains.

The southwestern portion of the county, along

the Gila River is occupied by the Pima and Maricopa Indian Reservation. It embraces much fertile land, a large amount of which is tilled by these peaceable and industrious tribes. They raise annually several million pounds of Sonora wheat, a plump spring wheat, which seems especially adapted to the climate, and which returns a surprising yield. With wheat, corn, pumpkins, mesquite beans and the small game of the lowlands, the Indians provide for themselves bounteously and are usually plump and apparently well satisfied with themselves and the world. Their agency is at Sacaton, west of Florence, on the Gila, where extensive buildings have been erected by the Government for schools and offices. The police regulations of the reservation are entirely under the charge of a corps of Indians, who are exceptionally faithful in the discharge of their duties, and diligent in arresting all wrong-doers.

CHAPTER XXV.

YAVAPAI COUNTY.

Yavapai was one of the four counties originally established in 1864, and at that time embraced nearly one-third of the whole Territory. It was afterward called upon to contribute to the formation of Maricopa County in 1871, part of Pinal County in 1875, Apache County in 1879, Gila County in 1889, and Coconino in 1893. The surface is rugged and mountainous, but hundreds of rich valleys lie scattered over its area. Most of the valleys are well watered the year round by natural drainage from the surrounding mountains.

In the Sierra regions the Verde hills or mountains border the Verde River on the west, forming the watershed between the Verde and Agua Fria rivers, extending to the northwest into the Black Hills, with Cherry Creek separating them. The Mazatzal Mountains form part of the southeastern boundary, with Gila County on the opposite slope. The Sierra Prieta run through the central portion near Prescott, beginning with Granite Mountain on the northwest and ending with Mount Union on the southeast, but thence continuing under the name of the Bradshaws. The Juniper Mountains run into the northwest to the west of Chino Valley. The Santa Marias lie to the west and northwest of Granite Mountain, forming the source of the Santa Maria River, on the south bank of which, near the western boundary, lie the Kendrick Mountains. To the southeast from these mountains stretch the Weaver Mountains to the Hassayampa River, while still farther into the southwestern corner of the county, forming the barrier against the low, desert country beyond, lie the Date Creek or Martinez Mountains. Mount Union, rising to an elevation of 8,000 feet, twelve miles to the southeast of Prescott, is a sort of universal watershed, and withal auriferous, as every stream finding its source there has furnished placers successfully

worked for all times since their discovery. From its northern slope flows Lynx Creek to the north, east and southeast; Big Bug Creek starts from the eastern slope to the northeast and then southeast, while from the southern slope Turkey Creek flows to the southeast, all reaching the Agua Fria. From the southwestern slope starts Milk Creek or Cook Canon, to reach the Hassayampa, which finds its own source on the northwestern slope. Granite Creek, too, comes from the northwestern slope. All these mountain ranges have a northwest and southeast trend, all contain valuable mineral deposits, all have fine grazing and excellent wood, all give rise to flowing streams of pure mountain water, and between them lie fertile agricultural lands.

There are raised in goodly quantity and of excellent quality, wheat, barley, oats, buckwheat, rye, corn, hops, potatoes, sweet potatoes, squashes, pumpkins, melons of all kinds, parsnips, carrots, turnips, radishes, onions, peas, beans, celery, cauliflower, cabbages, lettuce, peaches, apples, apricots, plums, prunes, some figs, almonds, gooseberries, currants, raspberries, strawberries, blackberries, besides many others. In all the valleys of the Sierra regions fruits of all kinds and of most excellent flavor grow abundantly. The fruits brought in from Granite Creek, the Agua Fria, the Verde, Lynx Creek and other regions to the Prescott market sell more readily at the same prices than do the California fruits. They have a luscious, juicy taste, lacking that dryish, woody taste of fruits from other regions.

Alfalfa, or lucerne, cuts two crops a year in the Verde and other valleys, leaving an excellent pasturage after. In the plateau regions are raised the finest potatoes grown anywhere, producing immense crops of fine, large mealy potatoes, not watery or insipid articles full of great hollows. They there form a staple export and are a regu-

lar crop. Wheat crops are large and profitable. Flouring mills would be an excellent investment.

In 1837 and 1838, Joseph Walker and Jack Ralston, hunters and trappers, discovered gold on the Little Colorado River below the falls, but did not know then what they had found or its value. In 1856 they saw more of the same yellow metal in Oregon, and then learned that it was gold, and at once realized it was the same metal they had found on the Little Colorado. Late in the 50's Ralston died, but Walker, at the head of a party, among whom were George D. Lount, John Dickason, Joseph R. Walker, Oliver Hallett, Arthur Clothier and Robert Forsyth, started from San Francisco in 1861 for the Little Colorado River, but could find no gold, although they found the locality. The company went to Denver, Colorado, and the next spring another party was organized there, which went first to Albuquerque, thence to the San Francisco and Gila rivers in Arizona. They met Jack Swilling and others, went to Tucson, thence to Hassayampa Creek, thence in the spring of 1863 to the vicinity of Prescott, where they made important gold discoveries. Before this Lount had gone to San Francisco, and soon afterward came back with a party of twelve men, though in the meantime the Walker party had founded Prescott.

Joseph Walker, Pauline Weaver, Jack Swilling, Henry Wickenburg, Mr. Peeples and others made many important discoveries of precious metals on the Hassayampa, Lynx, Big Bug and elsewhere, and in July, 1863, they discovered the rich placers of Weaver's Gulch. California prospectors discovered the rich "find" at Antelope Peak in the same year. The result was a great rush for this locality, which was considerably checked by the bloody raids of the Apaches.

On May 30, 1864, a meeting of citizens was held on Granite Creek, in Yavapai County, and a town was located thereon and named Prescott, "in honor of the eminent American writer and standard authority upon Aztec and Spanish-American history." The streets were run with the cardinal points of the compass, and were named for pioneers, explorers, etc.

It is in the granitic and schistose rocks of the Archaean formation, in the Sierra region that we find the most profuse mineral wealth. Almost all known minerals and metals are found here. Gold and silver especially in all their varied ores

and form, and everywhere, in close juxtaposition, are wood and water in abundance for the better working of the mines. Ore has been found that went as high as \$15,000 to the ton; not much of it, but some. From the placers of Lynx creek, Big Bug, Hassayampa and others fully \$4,000,000 in gold has been taken. Lack of transportation facilities has greatly hindered the development of Yavapai's mineral wealth, and it is only lately that ores of as low grade as \$30 per ton could be worked with any profit. The location at Prescott in 1887 of the sampling works, built by the Arizona Ore Company, has given a far-reaching impetus to mining which is making itself felt very sensibly. This company buys gold, silver, lead and copper ores, and makes its profit in handling ores by the carload, together with blending ores in such manner as to get higher results from each ore than if worked and sold separately, the miner losing nothing. There are over thirty mining districts in the county, with boundaries indistinctly defined, and to mention all these alone would consume full space. Many mines once thought to be worked out are proving excellent producers under proper management. In some mines where mills were successfully run for years, until the ores at the greater depth run from free milling ores to sulphurets and concentrating ores, work was stopped with loss of profit by milling and no steps taken toward concentration. It is hardly any discredit that the major part of the ores are base—not easily reduced by available processes. It simply means that concentration will take the place of milling to a greater extent, and that more of the valuable metals will be saved in the end; for a great saving is usually effected by concentration, where by attempts at milling much gold and silver are lost. Not that we have no mines of free milling ores and no mills running at a profit. There are many. But as in the Congress, Ryland, Senator and others, concentrators are used as adjuncts to the mills, accomplishing the best attainable results with the ores handled. Some mines were virtually abandoned when the ore became baser with the greater depth reached. Most of those can be and many are now worked with profit by concentrating. Almost every mine has its pile of what is denominated "second class ore," which only awaits opportunity for concentration to become a source of profit to the owner.

Though the year 1893 saw a greater ratio of development work to the amount of shipments than heretofore, and though the first half of the year was usually the lighter shipments, yet 1890 compared very favorably with 1889. The reports of the Director of the Mint credits Yavapai County with a production in 1889 of gold, \$461,705; of silver, \$162,759; total, \$624,464. Careful estimates (in many cases the actual figures were given, but in confidence) put the product for the first six months of 1893 at gold, \$260,200; silver, \$82,300; total, \$342,500.

During the years 1894-5 many mines have been opened, and some formerly abandoned workings have been reopened with profit: notably, the Senator, in the Hassayampa District, which has over 2,000 feet of development work, carrying gold sulphurets, with some free gold, and where has been put in a fine ten-stamp mill with a concentrating plant. The same company has been doing much work also on the Boggs & Hackberry copper property. The Silver Prince and Black Warrior, too, in the Bradshaw country, mines that were once heavy producers, but since abandoned, have been reopened. Forty men are constantly employed on these mines, furnishing much ore for the Tuscumbia ten-stamp mill, restarted on these ores. In the Bradshaw country, including the Peck, Tiger and Bradshaw Districts, there has been manifested great activity; paying, too. The Crowned King, Ryland, Rapid Transit and the Old Reliable group have been highly developed, the ore taken out paying all expenses of development, leaving large amounts of ores on the dumps. The Ryland has a twenty-stamp mill in active operation, with eight Triumph concentrators, the ore being free milling and concentrating gold ore. Forty men are employed, and the ore taken out in development has built roads and tramways and paid for the mill. The Rapid Transit is silver quartz, free milling, running to 350 ounces of silver to the ton, having 1,000 feet of development work all paid for from the ore taken out. The whole mountain back of it, comprising about two miles of locations, can be best worked from and through it. The Hillside properties, in the Eureka District, were not heavy shippers in 1895, but much development work has been done. Altogether, there is over 7,000 feet of development work, the ore taken out paying all expenses, including the

building of roads, sawmills, etc., with still 1,500 tons of good ore on the dump. At the Congress, in the Martinez District, work has progressed and ten stamps have been added to the former working capacity, consisting of a twenty-stamp mill, with a large concentrating plant. The development work runs well up into the thousands, the ore being principally gold sulphurets, with some free milling, the output running into the millions of dollars. In the Walker District, sometimes called the Lynx Creek District, which has averaged a yield of \$40,000 per year since its discovery, in placer mining alone, much work has been done in ledge mining also. The Amulet, Belle, Middleton, Favorite, Mark Twain, Happy Jack, Kitty, Oro Plata, Wadleigh, and many others have been worked to advantage, the better ores taken out in development paying all expenses, with thousands of tons of good concentrating ores on the dumps. In the Black Hills District the United Verde Copper Company has continued active work, recommenced in 1889, and their shipments of copper matte form much of the Prescott & Arizona Central Railway freight. Of other districts, the Groom Creek, Weaver, Turkey Creek, Tip Top, Big Bug, Agua Fria and Cherry Creek, especially furnished much ores for shipping. In Cherry Creek a ten-stamp mill was completed in the fall of 1889 at the Mocking Bird mine, and has done much work. Another mill was put up in the Big Bug District during the first half of this year, and a five-stamp mill also, in Skull Valley, for the Weaver District. Besides others, Phelps, Dodge & Company are erecting mills on the Senator property. This year, too, witnessed the finding of one of the largest nuggets of gold ever found in the county, valued at over \$600, picked up in the Big Bug District. The Scotch Lassie mine, in the Turkey Creek District, has a ledge of silver-bearing ore 12 to 14 feet between the walls.

Twenty-eight miles south of Prescott, at Myers' Station, on the principal route of travel between Northern and Southern Arizona, is located one of the strangest geological freaks in the nation, in the shape of a quarry of Mexican onyx of a couple of hundred acres in extent. The stone is what is scientifically known as travertine, and takes its name from its old Latin appellation of lapis tiberius, which it received from having been used by the Roman Emperor Tiberius, in

the construction of the Coliseum in the Eternal City. Where or how Tiberius obtained the stone of his day has always been an unsolved enigma to antiquarians and scientists, for the most persistent efforts have failed to disclose the old Roman quarries. Whether they were exhausted and then abandoned, or were neglected until forgotten, will probably never be known. To the modern world the existence of travertine was unknown outside of the four quarries in the State of Pueblo, Mexico, until the discovery of the Arizona onyx at Myers. The demand for this beautiful stone had nearly exhausted the Mexican quarries—which are of very small extent—when the announcement of the discovery of the Arizona quarry was made. Experts from all sections at once flocked into the new location, doubting the truth of the report, until they had personally seen the beauties of the discovery. The stone was universally pronounced as being far superior to that of Mexico, on account of being free from the flaws which characterize the latter, while the fact that it could be extracted in any size, shape and color desired made it doubly desirable, as the onyx of Mexico is only found in boulders of ordinary sizes, without any regularity of shape or color. The scientific explanation of the occurrence of the quarry is that the ground now covered by it was, at some remote time, the bed of an immense lake, created by a mineral spring or springs, the waters of which were strongly impregnated with lime, iron, manganese and other minerals. The first of these (lime) created the body of the onyx, while the last named gave it its colors. How very ancient the formation is, is shown by the volcanic dikes, which, in a few instances, have been thrown up through it, since the creation of the onyx.

To the layman the quarry presents as many interesting features as it does to the geologist and scientist. Its beautiful colors of black, white, red, emerald, pink, opaline, translucent old gold, russet, purple, with all their tints and shades, make up a combination never, perhaps, before seen in stone, while the vagaries that nature has played in combining them has produced the most fascinating effects. The quarry is worked by its present owners, Messrs. O'Neill, Dougherty & McCann, and as the Mexican mines have heretofore been unable to supply the demand for onyx,

at prices ranging from \$7.50 to \$20 per cubic foot, it promises to be, in the near future, a prominent factor in the industrial pursuits of Yavapai County.

Other minerals within the county are asbestos, aluminum, bismuth, sulphur, zinc, mica, fire clay, kaolin, gypsum, soda, hematite iron, and others.

In no one thing except in mining does Yavapai County rank higher than in its stock interests and capabilities. While the valley regions are pre-eminently the grazing regions of the county, nowhere are they altogether lacking. In the agricultural valleys of the Sierra regions, those lands not yet brought under cultivation are given over to stock raising. All the glades and slopes of our mineral-hiding hills and mountains are covered with nutritious grasses and forage plants. The climatic conditions are such that nowhere need stock be sheltered or winter fed. While the more valuable water rights are long since absorbed, every year some man of enterprise develops an ample supply of water for his stock and household use; or water is found by wells where it was thought none could be obtained.

The most fruitful field is by water storage in reservoirs, by which means it is undoubted sufficient supply may be husbanded to accommodate ten times the present number of stock. Rock-walled canons and clay washes all over the county afford excellent sites for reservoirs, nor can there be any doubt that with the settlement of the country the rainfall becomes more abundant. All else being provided, we have only to see to the food supply. All grasses and forage plants cure standing, and they are constantly increasing in quantity, quality and variety. In the higher altitudes and furnishing abundance of food even as high as 9,000 feet elevation, is the pine grass. While it may possibly be classed as bunch grass, it grows thick and high, affording a most excellent summer range, of great fattening qualities. It grows green in winter, even under the snow, and is the main dependence in the winter season for green food. The bunch grass here is exactly like that of Montana and the north, the main dependence of the northern stockmen for stock food winter and summer. While a hardy grass, it may be killed out by too severe pasturing, and then renewal is difficult. Of the giata or gayette and Sacaton grasses very little grow in this coun-

try, both being more adapted to the lower desert countries. But there is an abundance of the far superior grasses, the white and black gramma. Of these two the white is the hardier and makes a dense sod. The black usually has one large tap root to a bunch, and grows on a somewhat lower plane, giving the name to "Black Mesa," by reason of its abundance there. Both grasses are very nutritious, and afford superior nourishment for all kinds of stock. The white gramma especially is used for hay making. Besides these "stand-bys" of the Arizona winter are many other excellent forage plants. The white sage, the Nevada stockman's chief dependence, is widely scattered over the plains, where it is the main winter food for all kinds of stock. It forms a large part of all ranges in those regions and is the best winter food in the county. It grows in abundance, and in many places excels the far-famed Nevada ranges. Another variety called the mountain sage, or "Mormon Tea," is a good food plant, and having superior medicinal qualities. The green sage, another variety, usually grows near the white sage, but being much lower, and forming a sort of turf, is left for the sheep. Then for winter browsing in valley and foothill are several useful plants. The manzanita is much fed on by sheep, while a small bush, with a leaf like a rabbit ear, commonly called the chincapin, ranks with the white sage as a winter browse. For a fresh feed during the first three months of the year in the Verde Valley, the elm weed is recommended. It is fairly a desert grass, has a taste something like slippery elm bark, whence its name, and sheep reveling in it fairly roll in fat. First in the spring comes the "six weeks'" grass, which matures from the seed in six weeks, after rains fall. With it, or following, comes the California importation, alfileria, brought in with the first sheep from California, and rapidly spreading all over the country. It is a boon to the stockmen, furnishing the main spring stock diet until the summer rains bear fruitage. It is a vine-like plant, averaging six to eight inches high as it stands, but the stalks grow sometimes to seven feet while standing probably only fifteen inches high. Another excellent forage plant, as yet unmentioned by any writer, is the wild pea vine, growing in the mountain region in patches of half an acre to an acre, sometimes where other plants will not grow. It does not form a sod, but is hardy and very nu-

tritious. It goes to some higher altitudes than bunch grass. The pea itself is as nutritious as corn, and after the frost kills the vines, horses and sheep will run away to reach the pea fields. The "blue stem" is more cosmopolitan, growing all over the Southwest, forming the heavy hay exports of Kansas and Las Vegas, New Mexico, whence it has been shipped here. It is the most nutritious hay known, and scorns the tender care required by other plants, finding foothold for rank growth in lava-covered hills, where rocks lie thick, excluding other plants. Where formerly there was little of it, it now covers millions of acres, and even at two years old makes a good hay and food. It is the hardiest of all grasses.

The first regularly organized body of mining men to put foot in the immediate section of Yavapai County was the historical Walker party. They met in Contra Costa County, California, and on the seventh day of May, 1863, took up their "residence" on what is now known as Groom Creek. In this party there were twenty-five souls, and from that pioneer company there are only left Joe Walker, Jake and Sam Miller, A. Shupp and Mr. Chase. The remainder, including the leader of the party, Uncle Joe Walker, were either killed by Indians or passed away through other causes. This gathering were enthusiastic gold hunters, and moved at once to the Hassayampa, and in June of the same year drove stakes for good on Lynx Creek, where they raked out thousands of dollars of the yellow metal, securing, in short, the cream of the product. Some idea of the wealth obtained can be estimated by the statement that from one pan \$350 was the result, George Coulter being the lucky one. The above party kept up its organization for some time, but one by one its existence was shattered, and is now only of remembrance as of the days of long ago.

Later in the same year—October 26—the Lount party, of San Francisco, pulled into the cienega near Sam Miller's present farm, composed of thirteen souls, and of that number Judge Noyes and Judge Brooks were residents of Prescott. Of the doings of this party, they are credited with the location of the first quartz ledge north of the Gila, taking up 200 feet of ground on Lynx Creek, and calling it the "Pride of Arizona." Their location is recorded December 27, 1863. This contingent christened Quartz Mountain by its present name, and, it is useless to say,

they gave it an overhauling also, but without success.

In November, 1863, a party composed of twenty-four men arrived from Santa Fe, New Mexico, and among them were Ed Peck and Lew Alters, who were residents of Prescott. Mr. Peck says that this party was made up hurriedly, and was attracted to this section by the glittering tales told of diggings in and around what later was to be Prescott. They landed at Sam Miller's present farm, and most of its members located on Granite Creek and commenced sluicing. This stream, in that day, is said to have been a real live one, and for a distance of five miles above town was actively and profitably worked by several hundred men, until cloud bursts and a lack of water compelled the abandonment of it. In estimating the amount of gold, in three years, washed out of it, \$75,000 is placed as a low figure in its behalf.

Another good feature of this stream, in its good old days, which may possibly twist the present resident into every conceivable shape when it is told him, is that fishing was indulged in, and a good-sized article was everywhere to be had along its course.

Among the very earliest families to come and "grow up with the country," the Stephens grace the head of the list as among the permanent residents. They are still here, too, and located first on Goose Flat, when Prescott homes could be counted on the fingers of one hand. Mr. Stephens says that one day he tired of that locality, and, no real estate agency being handier than San Francisco, and bacon being a scarce article in camp, he bartered with a flush prospector and traded his house and lot for 100 pounds of that article, and moved to where he and his wife now reside on Granite Creek. No other roof in thirty-one years has sheltered them, a remarkable fact for man and wife to point to, considering that the age of this city dates back to the year they came. In speaking of the abundance of money and the absence of what was a luxury in the by-gone days, Mrs. Stephens relates a little incident to demonstrate the generosity of men to procure such that may prove that gold was not dearly cherished, nor did not go as far as it does in this era, in its own weight. This lady states that after purchasing two cows for \$300, she obtained a very limited amount of milk from the

first attempt, less than a quart, in short, and, going to the house, left the pail standing on a rock. Two visitors noticed the milking operation, and as soon as her back was turned devoured the milk and left. Mrs. Stephens returned, and while remonstrating with the fleeing ones, was asked to look into the pail, and beheld an ounce of the yellow metal to pay for the quart of white fluid. She said she was just as mad as ever afterwards, and kept her eye on them at milking time after that.

The starting of Indian troubles in this section is due to mining, and the first "war whoop" occurred at Antelope Hill in 1863, and was brought on by a party of California miners. They lost their burros, and, failing to find them, accused the Indians of their theft. After killing about twenty peaceable red men over four animals, they found the latter grazing leisurely within one mile of camp. For ten years after, hades popped on account of this unjust act, while the principals, of course, escaped.

In 1865 at least 3,000 placer miners were camped in various gulches around Prescott, water being in abundance everywhere, and from the prosperous condition of men, gold must have been likewise.

Pauline Weaver, after whom Weaver district was named, is said to have been the first white man to tread on Prescott soil. He followed placer mining if the yield was big enough, and became identified with the Indians more closely than any white man ever did or ever will, for that matter. He and a printer were killed, however, by mistake by them in 1865, on the trail that passed over the Copper Basin range, and on his person it is said there was at the time over \$1,600 in placer dust. The printer, of course, was broke.

In 1864, the first organization of the civil authorities was perfected to hunt new mining ground, and also Indians. It was headed by King S. Woolsey, and was made up of ninety-two men. They went to the Verde and Tonto Basin, finding no mines but plenty of Indians.

"Nigger Ben," who has left an inheritance for this and generations to come to "rustle" for in the shape of a mountain of gold, said to be covered up somewhere near Wickenburg, and which is said to lay gracefully in the shade the wealth of El Dorado, died in Prescott in 1865, and, strange as it may seem, the story which he is

said to be the author of, and which prospectors to this day persist in trying to solve in a vain attempt, first came to the surface in 1868.

The Indian is supposed to know where immense deposits of gold are to be found near this city, but the early pioneers say the red man is cunning and civilized enough to be capable of working such a raw game as the pale face is so noted for.

Theo. Boggs is among the pioneers who staked out a home in 1863 on Big Bug. He is still there. His only reward so far has been to have a post-office named after him.

The first family to locate in Prescott was that of Mr. and Mrs. Jos. Ehle, who arrived early in 1864. With them were their daughters, Mary, now Mrs. John Dickson; Ollie, now Mrs. H. B. Crouch; Sarah, now Mrs. J. M. Baker; John, now living near this city, and Annie and Maggie, deceased. Mr. and Mrs. Ehle are still residents of their favorite city. In speaking of old times, Mr. Ehle says that he drove several hundred head of fine beef cattle across the continent, but the Indians drove them right out again. He, John Dickson and Charley Genung located a mine in Walnut Grove, but abandoned it. A short time after, however, it sold for \$40,000. This transaction cured Mr. Ehle, and to this day he says he doesn't know a mine when he sees one. In the Ehle party there were twenty-four people.

The first regular meeting of miners was called for and held at Goodwin City, a mile south of Prescott, on December 27, 1863, to make laws to suit everybody, and particularly the Walker, Lount and Groom people. They made all necessary laws, but could not make mines. The big diamond excitement that in its day advertised Prescott somewhat notoriously, as being in existence near her, did not originate in this section, but in San Francisco. However, to learn news you must go away from home, so accordingly Prescott was depopulated when the imported tidings first struck the burg.

The first boarding house for miners was presided over by Virgin Mary, who built a log house on Goose Flat, and christened it "Old Fort Misery." In the line of milk, two goats furnished the necessary article. "Board \$25 per week, in advance," hung from the latch string.

Every man who came to this section in its earliest day sought but one line of business, and

that was mining. The scene changes with the present tide, however, but back of it all, nevertheless, with the possible exception of the one-lunger, or the "sure thing" fiend, gold is the root of all evil to-day in one way and another, and to grasp it at the fountain head is the reason why they still come.

The old capitol building, erected in 1864 by Christy and Van C. Smith, was constructed of pine logs, and stands to-day intact on Gurley street, being used by J. Jacoby, Kastner & Shepard, Smith Bros.' meat market, J. Derr, and the Comet saloon. Originally this building had two stories, the upper part being allotted to the Masonic order, where, it is said, the deliberations of the first secret order ever to take place in Arizona were held. Later the first legislature of Arizona here convened also. The property has been owned by Levi Bashford for more than a score of years. The original "Montezuma" building was erected in 1864. It was used as a saloon and stood where to-day may be seen the Cabinet saloon and the Palace barber shop.

Near the Montezuma and about twenty feet back of the same was the first boot and shoe manufacturing house, run by John Laughten. Judge Noyes, in recalling the existence of this store, says he needs no one to remind him of it, as his breath was simply taken away on the afternoon of the Fourth of July, 1864, when he weighed out \$37 in dust for a very common pair of hand-made boots. Nearer the creek is where D. Henderson & Co. ran a general merchandise house. The ground and a portion also of the building material is to-day occupied by Fred Brecht as a blacksmith shop.

Among the pines, the old gubernatorial mansion is standing to-day the same as of yore, with the possible exception of a few weatherboards. It is here the machinery of Arizona's government first received oiling, and it is here also the strife and heat of political life and social sectionalism among the Hassayampa 400 first received their baptismal fire. This building was erected in 1864 by Raible & Blair at a cost of \$2,500, and was a losing proposition to the firm. Mr. Raible is still an active townsman of Prescott. Dan Hatz, well known to all Arizonans, was among the carpenters employed on this building in 1864.

The building on Gurley street occupied by one of the newspapers was the first adobe built in

Prescott, and was run as a saloon; afterwards it was converted into a clothing house by Cook & Bowers, Washington French being a clerk in the same.

Old Fort Misery, on Goose Flat, was the first building that was built in the corporate limits of what now is Prescott. Judge John Howard here camped for many years.

The "Bear Pen" stood opposite the residence of V. A. Stephens. This building was utilized in the "good old days" by the merry makers in initiating the tenderfoot into the mysticisms of the Hassayamper, and while the victim came out of the ordeal intact, he never forgot the rough usage given him, and kept the event solemnly a secret until a friend was made to ride the goat also.

April, 1864, Prescott had but fifty permanent white male residents and two females, the latter being Apache Maria, an Indian, and an American woman known as the "Virgin Mary." Her maiden name is not known to this day, and her title is due to her many charitable and benevolent acts to the poor and distressed. She died about sixteen years ago on Lynx Creek, and lies beneath a mound of earth unmarked and almost forgotten.

The first building erected on what is now the plaza was an adobe that for years stood near the southwest corner of Goodwin and Montezuma streets. It was built by Michael Wormser.

While many of the citizens of the United States had, years before, found their way into Arizona and New Mexico, they had been always satisfied to accept the situation as they found it, and contented themselves with being identified with the interests of the old Spanish settlements. So fixed had this come to be the custom, that the commissions of the first civil appointees to whom was entrusted the management of the public affairs of the new Territory, designated Tucson as the territorial capital. Disregarding this, however, the gubernatorial party struck boldly out from Albuquerque to establish the territorial capital in Central instead of Southern Arizona. The reasons for doing so were manifold. The advantages in climate, accessibility and resources were all in favor of the new site as against Tucson, while the then recent discovery of rich and extensive placer mines on Lynx Creek may have strengthened the views of the party in this regard,

by creating a natural desire to be so located as to be able to reap a share in the general prosperity brought by the newly-discovered "bonanzas." The first and only halt made by the official party and its escorts was at Chino Valley, twenty miles north of Prescott, from which point reconnoitering parties were sent out to discover the best site for a city, and the ground now occupied by Prescott was, after much searching and deliberation, finally selected.

Prescott, the county seat of Yavapai County, and the former territorial capital, has the distinctive honor of being the pioneer "American" settlement of the great Southwest. There is not found in Prescott, as in other cities of Arizona, the unsightly adobe houses of long ago, standing side by side with the grand and palatial structures of brick, steel, iron and stone of a higher form of civilization. It is not only a strictly American city as regards its buildings and appointments, but also in the thrift and enterprise of its business men and energetic and go-ahead spirit of the community as a whole.

Prescott has not only the most picturesque location of any city in Arizona, but she is also fast becoming an important railroad center. In fact, she is one of the few towns in the Territory at the present time possessing two railroad lines, and besides these there are three stage lines tapping all the important mining camps and settlements between Prescott and Phoenix, and several others running to small towns within a radius of thirty miles. Both the Santa Fe, Prescott & Phoenix and the Prescott & Arizona Central Railroads connect with the Atlantic & Pacific, the former at Ash Park and the latter at Prescott Junction.

Prescott is the center of an extensive mining, cattle and agricultural region which, when fully opened up and developed, will pour millions of dollars into the mountain city. There are innumerable valleys scattered throughout the Sierra Prietas, whose soil is wonderfully fertile, and which are kept constantly irrigated by the natural drainage from the surrounding hills. Immense herds of cattle roam over the great ranges in the vicinity.

The climate of Prescott is almost as invigorating and healthful as could be found anywhere. The air is light, dry and pure, and comes sweeping over the town in gentle breezes laden with fra-

grance from the lofty pines which crown the adjacent hills.

The press is represented by two live and enterprising daily papers, the "Journal-Miner," edited by J. C. Martin, and the "Prescott Courier," by E. A. Rogers and J. R. Dillon.

The city is distinctly American. Nowhere is there to be found the flat roof, prison-like structures of sun-dried adobe, so common elsewhere in the Southwest. The buildings—dwelling and business—are all of lumber or brick. The city is built around a public plaza, in the center of which has been erected, at the cost of over a hundred thousand dollars, the county court house, which is admitted to be the finest public structure in either New Mexico or Arizona. Facing the plaza are the principal business houses, many of which, in size and style, surpass those of older and more pretentious communities. One block east of the court house stands the city hall, on what is known as "Nob Hill." The building is of brick, and is two stories in height, together with a basement and an attic. It stands on a spur of one of the surrounding mountains, and, from its windows, magnificent views of the surrounding country may be had for miles in every direction. To the east of the city hall and on the same street, is the public school building, the largest in the Territory, and capable of accommodating nearly 500 pupils. The services of five teachers are required throughout the year, so large is the attendance, while the course of instruction ranges from "A B C" to the ancient languages, higher mathematics, etc. The city is well supplied with water, having a magnificent system of public water works which cost \$100,000, with water mains traversing all the streets, which latter are laid out with as strict regard for the cardinal points of the compass as are those of the "City of Magnificent Distances" itself. Its numerous churches, erected and maintained by the Catholics, Methodists, Episcopalians, Methodist South, Baptists and Congregationalists, speak of somewhat closer attention to religious affairs than is usually expected on the frontier. Each of the denominations named have a neat edifice to worship in. The population of the city is now about 4,500.

The history of Prescott in the past is the same history which may be expected of her in the future. In this, it was founded on the basis of mining, and through no other channel has it

lived and prospered, and from no other source can it likewise be supported and encouraged in time to come. It seems but just and reasonable to-day to recall some of the so-called ancient transactions, as they apply to mines and mining, and thereby give to the new comer, as well as show to the old Hassayamper why the metropolis of Northern Arizona has grown from a single 10x10 log hut to the proportions now to be seen.

Previous to its becoming known that gold was to be had for the mere asking of it, nothing authentic is known of the reign of the white man in any of the mining districts, which are to-day so familiarly known in and around Prescott. With a knowledge, however, that every gulch and ravine throughout Yavapai was well worth the experiment of at least a prospect hole, commenced an era that has resulted in that to be seen to-day on every hand, in the desire for the yellow metal. Some of the tales told in consequence have such a romantic hue closeted with the doings of "early birds," that they seem almost incredible, but as they are substantiated by fact, and require no "affidavit," they are epitomized from the general tone of the many who relaté such, and considering the "tight" times of the present, may possibly prove of interest and serve otherwise as a foundation for the belief that the country is not yet worked to bed rock.

From the lips of such old ones as Ed Peck, Judge Noyes, Dan Hatz, V. A. Stephens, W. N. Kelly, Jos. Ehle, Dr. Kendall, John G. Campbell, John Dickinson, Judge Brooks, Sam Miller, B. A. Hussey, N. L. Griffin and others who still hold the bloom of youth and bid fair to live on perpetually, even if they were in Prescott when naught but the "Bear Pan" was in its thriftiest state, and when the winter of 1863 is referred to as a very "mushy and wet" one, is gained much information of the early transactions of this surrounding section, and in each and every instance mining is entwined as the basis of all doings, and that one idea was the sole inducement that stirred them and others to come in.

The Arizona "Miner" (now the "Journal-Miner") first heralded the glad tidings in June, 1864, and as each issue was handed off the press to the hardy and generous pioneer, it was ravenously devoured and made the talk of the town. The paper was too poor to afford a home, but it was issued from between two walls of logs, one

on the north and one on the south side of the office, which was located on what is now occupied by J. L. Fisher's store. The old "Ramage" hand press, on which was printed Arizona's "first and best" newspaper, may be seen to-day in the "Journal-Miner" office in good working order, and none the worse off for its labor in the line of magnificent exaggerations as it enlightened the outside world and helped to make the country what it is to-day. This piece of crude machinery has a life that dates back to 1847 and is good for service still in singing the praises of Arizona and Arizonians if the opportunity should ever come for it to again fall into line. The "Journal-Miner" is then, indisputably, the pioneer paper of the Territory, and has occupied, continuously, the field of journalism in Arizona from March 9, 1864, to September, 1896.

The Prescott Mining Exchange was organized in the city of Prescott, March 30, 1896. The principal object of the association was declared to be the promotion of the mining industry in Yavapai County, Ariz., and the territory adjacent thereto, by all appropriate means, among which may be particularly mentioned the following:

The maintenance of suitable quarters for the display of the different classes of ores, minerals and products of this section, together with maps, plans, sketches, photographs, and other illustrative material relating to mines and works connected therewith.

The collection and publication of reliable statistics regarding ore and bullion production, the geology and mineralogy of the district, and such further matters as may conduce to the accurate representation of our local resources, and the proper advertising of the same, without misrepresentation. The bringing together of mine owners and investing capitalists for their mutual interest. The establishment of a "bureau of information" for the furnishing of trustworthy replies to questions relating to mines, mining companies, mining machinery, etc.

At a public meeting held in the city of Prescott, composed of representative citizens of the county, the following gentlemen were duly elected to serve as directors for the first year, viz.: Alex. O. Brodie, Samuel Hill, E. W. Wells, R. H. Hetherington, John S. Jones, R. H. Burmister and A. Falco.

From the board of directors the following were

elected to serve as the officers of the exchange, viz.: Alex. O. Brodie, president; Samuel Hill, vice-president; E. W. Wells, treasurer, and R. H. Hetherington, secretary.

The rooms of the exchange are open to the public every day and evening.

The Bank of Arizona was incorporated under the general incorporation laws of the Territory, to do business in Prescott, in August, 1877. Lord & Williams, of Tucson, had the post office, and on that account was made the local depository for government funds, solicited deposits, and did a small banking business in connection with their general merchandise business, previous to this time, but the Bank of Arizona was the first exclusively banking business in the Territory. Sol. Lewis was president and M. W. Kales cashier. There being no suitable building for the bank, Mr. Lewis erected a two story brick on the corner of Gurley and Cortez streets, which is still its home, and is the best location in town. The capital was authorized at \$100,000, with \$25,000 paid up, and, like most of the funds invested in the Territory at that time, was furnished by San Francisco parties. In 1879 this bank established a branch in Phoenix, called The Agency of The Bank of Arizona, with M. W. Kales in charge, which was the second bank opening its doors in the Territory. In 1882 this agency was separated from the Prescott house and known as Kales & Lewis, which afterward nationalized as the National Bank of Arizona, where it stands to-day. In 1882 the ownership of the Bank of Arizona was transferred from San Francisco to Prescott, by the purchase of its stock by a syndicate composed of Sol. Lewis, Hugo Richards, Ed. W. Wells and W. E. Hazeltine, Lewis retaining the presidency and W. E. Hazeltine being cashier. In 1887 Lewis sold his interest to the other three, who have owned the institution ever since. Hugo Richards is president, E. W. Wells, vice-president, and W. E. Hazeltine, cashier. The capital is now \$50,000, paid up, and undivided profits \$10,750. The owners are all residents of the city and have other large interests, in real estate, in mines, and other kinds of business.

The Prescott National Bank was organized in March, 1893, with the following officers: Frank M. Murphy, president; Morris Goldwater, vice-president; Russell C. Woodruff, cashier, and

Frank M. Murphy, Morris Goldwater, Russell C. Woodruff, R. N. Fredericks, W. C. Bashford, Dexter M. Ferry and J. T. Fisher, directors. It was capitalized at \$100,000, and now has a large surplus.

This bank has among its largest stockholders: Dexter M. Ferry, Detroit, capitalist, president D. M. Ferry & Co., president First National Bank, Detroit.

C. C. Bowen, Detroit, capitalist, treasurer S. F. P. & P. Railway Company.

George V. N. Lothrop, Detroit, capitalist, late envoy extraordinary and minister plenipotentiary to Russia.

S. Dow Elwood, president Wayne County Savings Bank, Detroit.

J. T. Shaw, cashier First National Bank, Detroit.

W. T. DeGraff, cashier Detroit National Bank, Detroit.

Simon J. Murphy, capitalist, Detroit.

John Lawler, capitalist, Prescott.

James Douglas, New York, president Copper Queen Consolidated Mining Company and Commercial Company.

D. B. Robinson, Chicago, vice-president Santa Fe system.

P. N. Aronson, capitalist, San Francisco.

F. S. Belcher, Phoenix, president Phoenix National Bank.

A general banking business is transacted. Drafts drawn on all the principal cities in the United States and foreign countries. Money sent by telegraph. Gold dust and bullion purchased at highest rates. Escrow papers taken care of without charge. Most careful attention given to any business intrusted to our care.

The statement of the condition at close of business, September 28, 1895, is as follows:

Resources.

Loans	\$184,098.11	
U. S. bonds	25,000.00	
Premiums on U. S. bonds (4 per cent)	2,500.00	
Stocks, securities, etc.	20,857.84	
Furniture and fixtures.	2,550.00	
Five per cent. fund.	1,125.00	
Sight exchange.	\$63,424.89	
Cash in vaults.	27,407.12	90,832.01
		<hr/>
		\$326,962.96

Liabilities.

Capital paid in.	\$100,000.00
Surplus fund.	4,000.00
Undivided profits (net).	12,357.35
Circulation	22,500.00
Deposits	188,105.61
	<hr/>
	\$326,962.96

The bank has paid regular semi-annual dividends from commencement of business.

In 1877 Prescott had fourteen stores, three jewelers, three butchers, four liverys, three brewers, eight carpenters, eight blacksmiths, seven wagonmakers, five hotels and restaurants, five boot and shoe shops, fourteen saloons, seven lawyers, four doctors, two tin shops, four milliners, two barber shops, one drug store, one dentist, one harness shop, one photographer, three assay offices, one large sash, door and blind factory, three churches—Methodist Episcopal, Methodist Episcopal South, and Congregational—court house and jail, new brick school house, just then completed at a cost of \$12,000, two newspapers—the "Miner," independent daily and weekly, and the "Enterprise," Democratic weekly—several fine new brick blocks, a credit to the place.

In 1890 Prescott had assumed much more modern appearances. It had a population of about 2,000, had two daily papers, excellent public schools, ample water works, a fine city hall, good county buildings, electric lighting, five church buildings and more than that number of religious organizations, four fire companies, one militia company, many secret and benevolent societies, and a large number of stores and shops of all sorts.

Early in January, 1865, a party consisting of James M. Swetnam, William L. Osborn, Clayton M. Ralston, Henry D. Morse, Jake Remstein, Thomas Ruff, Ed. A. Boblett, James Parrish and James Robinson, left Prescott, Arizona, for the purpose of locating a colony for farming purposes in the valley of the Verde River, if a suitable place could be found. At that time the only ranch east of the immediate vicinity of Fort Whipple and Prescott was that of Col. King S. Woolsey, which was at the upper end of the Agua Fria Canyon, twenty-five miles east of Prescott, it being twenty-five miles further east to the Verde Valley.

The party understood their liability to come in

contact with the Apache Indians, but they were well armed, young and brave, and felt themselves equal to the task they had undertaken.

The men were all on foot, taking along a single horse, on which was packed their blankets, cooking utensils and provisions for ten days. They followed the road to Woolsey's Ranch, then the Chaves trail to near the head of Copper Canyon, at which point they left the old trail, following down the canyon by an Indian trail to the Verde River, which they reached on the third day at a point almost due east of Prescott and fifty miles distant.

At Prescott the ground was covered with snow and the contrast presented by the valley, not only devoid of snow, but showing evidences of approaching spring, was very agreeable. But the one thing which was not so agreeable was a quantity of fresh Indian signs, and the sight of a couple of columns of blue smoke, lazily ascending at a distance of four or five miles.

To reach the east side of the river, which was perhaps fifty feet wide and in the deepest part two feet, the party waded across and camped until toward evening, when they moved down the valley something over two miles to a point half a mile north of Clear Fork, where they camped for the night, placing a guard with relief every two hours.

When morning came three men were left to guard the camp, and the others, dividing into two parties, started out to explore—one the region about Clear Fork, the other going north toward the next tributary, called Beaver Creek.

The party passing up Clear Fork had gone less than a mile when they came suddenly upon moccasin tracks, and shortly afterward a camp fire with evidence of recent flight. Moving cautiously to an elevation, several savages were seen scurrying away toward a rough canyon on the north, which they soon entered, passing out of sight.

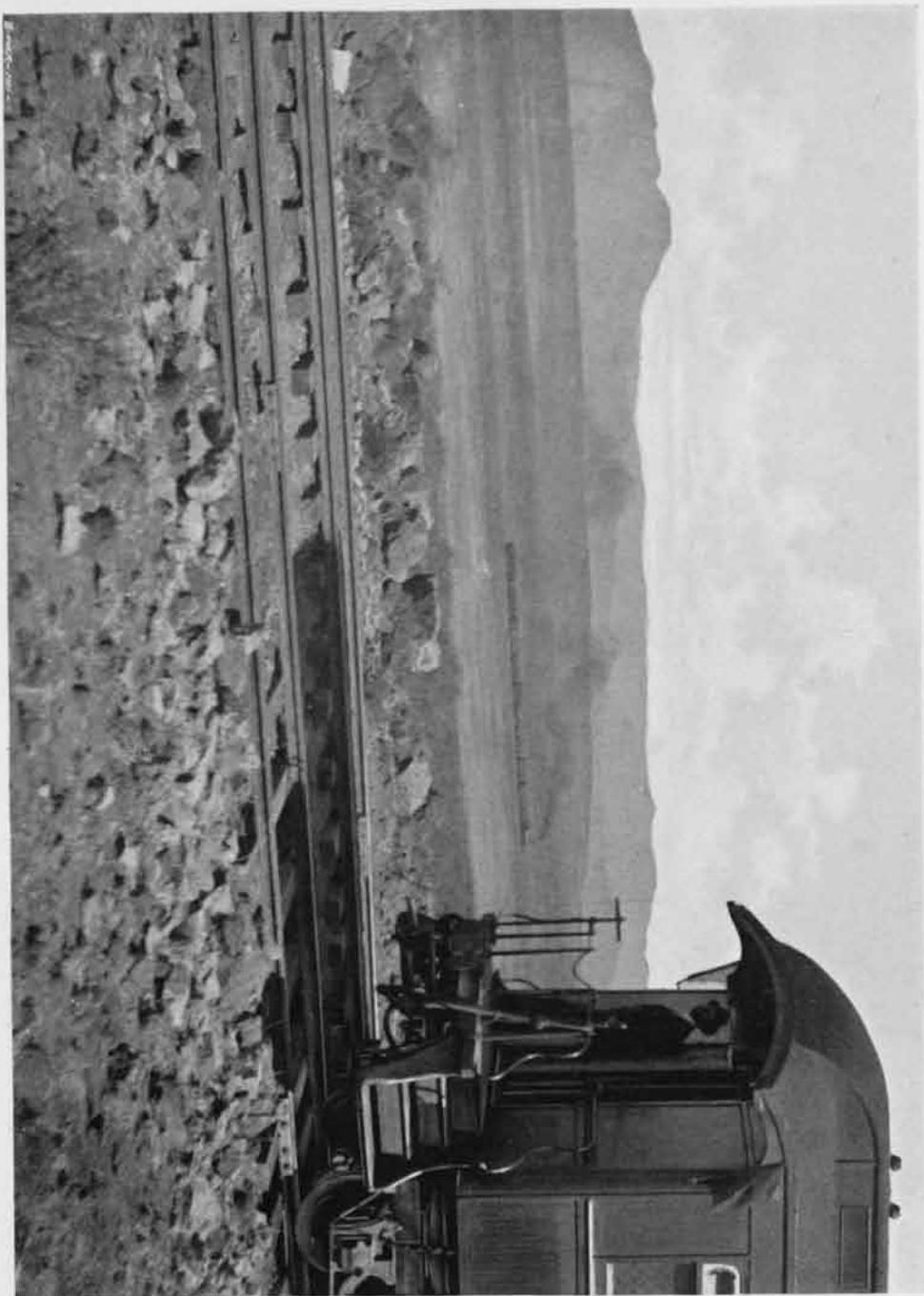
Three or four days were spent in the valley, the exploration extending from one mile below Clear Fork to ten miles above. But it was finally decided, although the amount of arable land was less than desired, to locate on the V-shaped point between the Verde and Clear Fork on the north side of the latter.

The reasons for this decision were: First, the facility and cheapness with which water could be

brought from Clear Fork for irrigation; second, the advantageous position for defense in case of attack from savages, which they had every reason to expect; third, the large amount of stone reduced to the proper shape for building—remains of an ancient edifice, perhaps a temple whose people had been driven from its use and enjoyment hundreds of years ago by the ancestors of these same savage Apaches.

The location being determined upon, the party returned to Prescott, and began preparations for making a success of the enterprise. This was no easy task, some of the best informed and oldest settlers about Fort Whipple and Prescott trying to dissuade "the hot-headed boys," as they styled the principal movers of the scheme, by every possible argument, insisting that the whole thing was impracticable; that it was impossible for a party of even three times the number to go into a region so far from assistance, and surrounded with such Indians as the Apaches, and succeed in holding possession of the valley. Others predicted that the whole party would either be killed or driven out inside of sixty days. But still the work of preparation went on. Tools for clearing the land and ditching were purchased. Plows—cast mold boards—a very inferior utensil, but the best that could be got, were bought at exorbitant prices. Barley and wheat for seed cost \$20 per hundredweight; this was the price in gold, greenbacks being worth seventy cents on the dollar. Corn for seed cost them \$22 per hundredweight, and they had to go eighteen miles to the Hassayampa for it, then pack it to Prescott on donkeys over an almost impassable trail. Provisions were also high. But all these difficulties were overcome, and early in February the party, numbering nineteen in all, with supplies loaded into six wagons drawn by oxen, bid farewell to their friends and set forth to try the experiment of making a permanent settlement in the midst of a region surrounded by the murderous Apaches.

Four days later these adventurers reached and passed over the Verde River at the same point where the exploring party had crossed one month before, and pitched their camp. Here the first trouble came, not from Indians, but among themselves. Two parties had already risen, and the rupture was becoming serious. It had been agreed to plant the permanent camp at Clear



SHOWING PART OF THE LETTER "S" ON LINE OF S. F. P. & P. RAILWAY.

Fork, but there was one or two who had all the time favored the little valley where they were now camped. It was larger than the one originally selected, and was very attractive. Those who had favored this locality in the beginning had yielded to the majority for the time, but had been quietly and industriously at work among the new recruits, and now hoped to reconsider the first vote and make the settlement one mile above the present camp. The leader of this party was a man named Parrish—not a bad fellow, but one who liked authority and was obstinate. The selection of the upper valley would be an endorsement of his plans, and virtually make him head of the colony. Those who favored the other location did it because they felt it was for the best interest of all concerned.

They argued that the expense in time and muscle, and of course in provisions, in getting water from the upper valley, which would have to come from the Verde River, would be at least four times what it would cost to bring it from Clear Fork into the lower valley. This was a strong argument in favor of the original location. Much work was to be done. Cabins to live in, and a suitable stockade for defense, were first to be constructed, and then the land was to be cleared and water put onto it before cultivation could begin, so that it became a necessity to avoid all superfluous work, and save every hour of time if they expected to succeed in raising a crop that season, and a failure to raise and secure a crop was failure of the whole scheme, as nearly every one had his all staked upon the success of the enterprise.

Nothing was decided that afternoon, and though the day had been beautiful, during the night it began to rain, a thing they were not expecting, and were not prepared for. Several of the wagons had no covers, and the rain increasing, the contents became soaked with water. When morning came, everything looked gloomy, the men gathering, shivering around the fires, which were with difficulty made to burn. Two miles away upon the hills to the south it was snowing, and only the lower altitude kept them from being in a snow storm where they were. Such was the condition of things on the first morning.

All were impatient of delay, and wanted to have the matter of the exact location of settle-

ment determined. Those favoring the lower valley quietly numbered their forces, and found there were seven votes sure, and three more were non-committal. Among those was Mr. Foster, who had neither cattle nor interest in them, hence would be compelled to rely on some of the others who had. J. M. Swetnam went to him and agreed if he would join those favoring the lower valley, he (Swetnam) would furnish him cattle for breaking and cultivating his ground free of charge. The offer was accepted. There were yet the two who so far as those who favored the lower valley knew, had expressed no opinion.

About 10 a. m. the same day the rain ceased, and by noon the sun was shining. The matter of location had been fully discussed during the morning, and Parrish, believing himself in the majority, was in high spirits, and declared his determination to settle in the upper valley. Those favoring the lower valley had most at stake, and while deprecating the division of the party, determined to make their settlement as originally contemplated.

One more effort was made to induce Parrish and his followers to yield, and upon their refusal, preparations were immediately begun to continue the journey to Clear Fork.

J. M. Swetnam, W. L. Osborn, H. D. L. Morse, Jo. Melvin, Thomas Ruff, C. M. Ralston, Mac Foster, Ed. A. Boblett, John Lang, and Jake Ramstein, ten in all, pulled out, and that evening pitched their camp at the place already selected on the point between the river and Clear Fork.

The first work was to build a place to secure the cattle, and provide for their own defense in case of an attack from the Apaches. The next morning, before the sun was up, they had begun work. The stone of the old ruin previously spoken of was used to make an inclosure sixty feet long and forty feet wide. The walls were built to a height of seven or eight feet, being four feet thick on the bottom, and two feet thick at the top. A well was also dug that they might have water in case the supply from the river or ditch was interfered with.

The stone inclosure being completed, they then built a cabin on each corner. These cabins were built of poles notched at the ends, and made a very substantial habitation. The floor was mother earth—wet, leveled, and pounded so as to make it hard and smooth; the cracks between

the logs were chinked and plastered with mud. There was one door and one window to each cabin, and these were closed with strong shutters. There were also loopholes looking out from the exposed sides and end of each cabin. The covering was made by using poles, round or split, for a foundation, covering this with grass, and then piling dirt to a depth of fifteen to eighteen inches on top of that. The timber for these purposes was got from the grove which fringed Clear Fork on each side for a distance of over two miles from the mouth. This was willow, cottonwood and ash.

The cabins completed, the next work was to open a ditch to bring water to the fort, as they now called their camp, for irrigating purposes.

The spot selected for the dam was a point on Clear Fork about one mile and a half from the fort. This would enable them to cover about four hundred acres with water. The plan was to make the ditch three feet wide at the top and fifteen inches deep. Then came the survey. For this they had no instruments. Ralston had once carried a chain with some surveyors in Illinois, and thought he could survey the ditch, so he arranged a triangle with a leaden bob, and, with the aid of a carpenter's level, the work began. The first half mile was through greasewood and mesquite, which annoyed the surveyors, and afterward rendered the digging in places quite difficult. The survey being completed, up onto the level, from which point the water would have plenty of fall, the work of digging was begun with a will, every man doing his part. There was a division of labor; two or three men had to remain about the cabins to be on the lookout for Indians, and to look after the oxen, and two, Jake Ramstein and John Lang, refused to join in with the main party, but took out a small ditch on the south side of Clear Fork. This ditch was less than half a mile long, and covered about forty acres of land. So that reduced the number to work on the main ditch to five at a time. Swetnam was made timekeeper, and the working and watching was so arranged that each man did his share of the digging.

The work was hard, but they were at it by sunrise in the morning, and sunset often found them wielding the shovel and the spade. Work upon the ditch had continued for over a week when it became necessary to go to Prescott, for

provisions were getting low. They had expected to be able to get some game in the valley, but nothing had been killed excepting two or three geese and as many ducks. A few fish of the sucker family had been caught, but the addition to the larder did not pay for the time spent in catching them.

About the 20th of March five of the party, with one wagon and two yoke of oxen, left on the trip to Prescott. At the upper camp they were joined by two men who were leaving the valley in disgust. This increased the number to seven. The Indians on the way up annoyed them some, though they were not attacked. During the absence of the party after supplies, work on the ditch almost ceased, and the time was spent in gardening and such other work as could be done near the fort.

The party returned from Prescott in about six days, bringing with them Mrs. Boblett, Mr. and Mrs. Whitcomb, father and mother of Mrs. Boblett, Charles Yates and John A. Culbertson; also, thirty-three head of cattle belonging to John P. Osborn, and ten or twelve head belonging to Whitcomb, which, with the oxen they already had, brought the number of cattle on the ranch up to between fifty-five and sixty, and what was better, gave them three more men and the civilizing influence of women.

The cabins were now occupied as follows: The northwest by Swetnam, Ralston and Foster; the northeast by Osborn, Melvin, Morse, Yates and Culbertson; the southeast by Lang and Ramstein, and the southwest by Mr. and Mrs. Whitcomb, Mr. and Mrs. Boblett and Thomas Ruff.

Work was again vigorously prosecuted on the ditch, but when Culbertson, one of the new arrivals, who had had much experience in irrigating in California, came to look the ground over, he insisted that the survey was incorrect, and unless they had the power to make water run up hill the ditch would be useless if continued on the present survey. Ralston contended that the survey was correct, and to settle the matter a dam which was intended to be left until the ditch was finished, was now thrown across the stream and the water turned into the ditch. Though turned on with considerable head it ran sluggishly for about one hundred feet and stopped. Clear Fork water would not run up hill.

The atmosphere grew blue and sulphurous for

a little while. Many days of hard work had been lost by the blunder, but they were not the kind of men to repine. The upper end of the ditch was lowered, the survey made on a little lower level, and the work progressed without interruption until the ditch was completed, and an abundance of water clear as crystal running therein.

The work of clearing off the land and breaking had begun and was prosecuted with such vigor that by the 10th of May over two hundred acres had been planted in barley, wheat, corn, potatoes, beans, melons and garden stuff, and was growing with a rapidity only seen where there is rich soil, a hot sun and plenty of moisture.

Two or three times Indians had made their appearance on the hills, and twice tracks were found within twenty rods of the cabins where the savages had been the night before, but up to the 1st of May there had been no particular annoyance, and the settlers began to have hopes that the Indians would not molest them, hence became careless. The cattle were allowed to wander without some one being with them all the time, though they were looked after, brought up at noon, and kept corralled every night.

One morning in the early part of May the settlers were engaged on their different tracts of land when the cry of "Indians!" "Indians!" rang out upon the startled ears of the settlers, and in a minute every man was hurrying to the fort. Mr. Whitcomb, whose duty it was to look after the cattle, had just before 10 a. m. missed three head of oxen. It was but a few minutes work to reach the spot where he had seen them half an hour before, some sixty rods away from the cabins. He soon struck their trail, and following it were moccasin tracks. This explained their disappearance.

Twenty minutes after the alarm was given, Melvin, Ralston, Osborn, Swetnam and Morse were upon their track in hot pursuit. The direction of the trail was south of east, crossing Clear Fork not far from the head of the ditch and coming out on the mesa nearly three miles from the fort, the general direction being toward Tonta Basin, for which point the Indians were apparently heading.

The cattle were in good condition, and the Indians, probably a small foraging party numbering nine or ten, were sparing no effort to get away with their booty, and with three-quarters

of an hour the start through a region every foot of which they knew, and of which their pursuers knew little, it could be nothing less than a dangerous and a long chase. But this only increased the determination of the boys to recapture the cattle. "For," said Ralston, "this is their first raid, and, if successful, they will soon come again, but if defeated in this effort, it will teach them to let us alone in the future."

At a distance of about four miles the trail entered the mountains, where the rocky condition of the ground rendered the trail, in places, quite indistinct, thus hindering the pursuers. At this point, Thomas Ruff, mounted upon the only horse in the valley, and with a supply of bacon, flour and coffee for two days, and bread for one meal, overtook the boys, thus increasing their number to six.

About half-past 1 p. m. they came to a beautiful, clear, cool stream of water. Here they stopped for twenty minutes and ate a lunch of raw bacon and bread, washed down with cold water, and no banquet was ever better relished. The little rest and food greatly refreshed them, and the boys strode over those wild, rough and rocky mountains at the rate of five miles an hour.

By 2 o'clock there was no trouble in following the trail; the droppings from the over-heated cattle, and the little flecks of foam not yet dry, showed that the distance between the pursued and the pursuers was growing rapidly less.

At four o'clock a small stream was reached where the cattle tracks in the water had not yet cleared, and the boys knew their game was near. Here the trail went almost directly up the mountain side, which was covered with pretty thick brush, necessitating a little more caution in the advance, but the speed was not lessened. With faces flushed with the muscular exertion, guns in a position for immediate use, and every eye and ear upon the alert, they ascended the mountain for nearly half a mile, Swetnam in the lead, Melvin at his heels and Osborn next, thus reaching what seemed to be the top. In a hollow some fifty steps ahead stood the cattle, with tongues hanging out, panting for breath, and a number of arrows sticking in each, but no Indians in sight. Beyond the cattle was another short rise, and the savages, finding the pursuit so close that they could not get their booty in its exhausted condition over the ledge before the boys came in

sight, concluded to abandon the cattle and save themselves.

A halt, only long enough to pull the arrows from the wounds of the bleeding cattle, was made, then they hastened on after the Indians, but all trace was soon lost. Still they continued on for perhaps a mile further, coming to the extreme top of the mountain, when looking off to the southeast and south, a vast region of country came into sight—the valley of the Salt River and its tributaries, beyond which the mountains shone dim and blue—a region in which no white man had dared attempt to make his home.

Further pursuit was useless, and the boys returned to where the cattle had been left, one of which was found to be badly wounded, but they turned them toward home, and immediately began the journey.

About 6 o'clock they met John Lang—the cattle belonged to him and Jake Ramstein. John's face was covered with dust, his hat was off, his shirt bosom was open, the sight knocked from his gun and the stock broken. "Well, John," said Melvin, "did you expect to overtake us?" "Vell, I t'ot I would as you come back," was his reply. Upon questioning him regarding his broken gun, it developed that he, being at work south of Clear Fork, did not hear of his loss for half an hour after the party had started in pursuit, when, against all remonstrances, he started to follow, and on his way came across an Indian who had evidently been left behind to watch and report. Lang got up near enough to him to shoot, but he did not kill the Indian, and this made him so angry that he threw the gun away and charged the Indian with his six shooter. But the savage soon disappeared. Then Lang returned, picked up his gun and followed on the trail. When asked why he threw the gun away, he said, "The tam gun is no goot." He felt there would have been one dead Apache had the gun "been goot."

An hour after dark the party halted long enough to prepare and eat supper, after which they resumed their journey, reaching home at three o'clock the next morning, having been out seventeen hours, and traveled fifty miles. The cattle stood the trip home, but one of them died from the effects of his wounds on the day following. The other two lived to be again captured and again rescued.

About this time the upper camp was abandoned entirely. Too late, they found they could not get water onto the ground in time for a crop, and, becoming discouraged, they gave up entirely, Parrish and four or five of his followers going back to Prescott, and the remainder joining the lower camp.

Everything went on smoothly for some time, except that the horse was one evening run off by the Indians. Corn had been planted, the grain and vegetables were looking well, though the grain had been sowed late, and the corn soon began to need cultivation, but without horses how was this to be done? Three or four shovel plows had been brought down, and those could be soon stocked if the motive power could be got. It has been said, "Necessity is the mother of inventions." Short yokes were made, a harness improvised and single oxen were put to plowing between the rows of corn, and, though slow, they did the work very well. But in this instance the command, "Thou shalt not muzzle the ox," had to be disobeyed, or there would have been either no corn or no plowing.

The living was not elaborate. It was coffee, bacon, beans and bread for breakfast; beans, coffee, bread and bacon for dinner, and bread, coffee, bacon and beans for supper. At Prescott flour was \$30 per hundredweight, in greenbacks; bacon fifty cents per pound. But when the new vegetables got ready for use, they fared better, and when the sweet corn and green beans came; followed by potatoes and melons, they lived like kings.

Late in May a man by the name of Sanford, an old Californian, joined the colony, and about the same time a man from Texas named Elliott, with his wife and three or four children. Another cabin was built on the east side, the end being placed immediately against the stone inclosure. Crops were now growing vigorously, and the boys began to feel in good spirits. Work was now less pressing, and the company being larger, more trips were made to Prescott, and upon each of those occasions one or more persons would accompany the party back to the valley.

Prescott being the nearest post office, letters and papers were received at intervals of three or four weeks. Books were few, and amusements, outside of cards or target shooting, were scarce. There was no game to hunt, and alto-

gether it was rather a humdrum life to lead, except when the Indians gave them a little excitement.

Scarcely a man in the whole valley went by his own name, nick-names being given to each. For instance, Clayton Ralston, because he got a letter stating that his sister had a boy, was immediately dubbed "Uncle Clayton;" Boblett and his wife, although married over ten years, had no children; he was called "Pap." Culbertson was a slim, long-legged fellow, and he was known as "Fly-up-the-creek." Osborn was "Stubbs;" Swetnam, "Scrapp;" Morse, "Muggins;" Foster, "Scroggins;" Melvin, "Schimerhorn," and so on.

The latter part of May, while six or seven of the party were on a trip to Prescott for supplies, just after the noon hour, the ditch was found to be without water. There could be but one explanation—either the dam or ditch was cut, and only Indians would do it. The breach must be repaired and the camp protected.

This might be a scheme on the part of the Indians to divide the force left in the valley and then attack the cabins. The cattle were corralled, and Culbertson and Swetnam volunteered to make the attempt to find the break and repair it.

In addition to their usual fighting implements, they took an ax and spade, and followed up the ditch. They had not gone more than one-third of the distance to the dam when a column of smoke was seen rising from a point on the mesa south of the dam. The redskins were there and were watching the settlers. The boys, after reconnoitering for some time, finally reached the dam, which had been cut, and the water turned into the main channel. Three or four hours' steady work, one standing guard while the other labored, was sufficient to repair the breach and throw an abundance of water into the ditch. The boys quit just before night and returned safely to the fort.

There was no more disturbance from the Indians until June 23. That morning a party had returned from Prescott, bringing two or three visitors and two horses with them, and those left in the valley received them with great joy, for they were several days behind their expected return, and for two days the commissariat of those at the fort had been reduced to coffee,

beans and green vegetables, so that when they did return, everybody knocked off work and made a kind of holiday of it.

The cattle had been brought up to the corral at noon, but had not been put inside. The two horses were picketed within a hundred feet of the northeast cabin, and there was no thought of Indians. Dinner had been eaten, and several of the boys were lounging in the northwest cabin, the window of which looked directly up the river. During the dinner hour the cattle had wandered off up the stream perhaps a half mile and half as far from the river, it being another half mile to the bluffs to the northeast. Some one, glancing up the river, saw four naked men running from the cover of the bank directly toward the cattle. "Indians! Indians!" was the cry. Swetnam, Ralston and Foster seized their guns and started on the run to save the cattle, the other boys hurrying to their own cabins for their guns.

The intention was to reach the cattle before the stampede could get them to the bluffs. Swetnam, being the fastest runner, was in front, Ralston next and then Foster, but the latter had thought of the horses, and leaping on the back of the best one, passed Ralston and overtook Swetnam when nearly half a mile from the fort. Swetnam here mounted on behind Foster. From four Indians first in sight, the number increased to over sixty, and they had formed a hollow square around about twenty-five of the cattle and were hurrying them upon the run to the south of a ragged canyon half a mile from where the cattle had been captured.

It was a beautiful sight. The Apaches were naked, except the breech cloth, and armed with rifles, long-handled spears and bows and arrows. The spears were freely used in urging the cattle forward, but five or six of them broke away from their captors and escaped.

Foster and Swetnam both urged the horse to as great a speed as possible, and without stopping to consider the danger, did their best to reach the canyon before the Indians, but the distance was too great; they were still eighty yards away when the mouth of the canyon was entered by the savages, who divided into three columns, one moving up the center after the cattle, and one up each side of the canyon. Swetnam here leaped from the horse and dropped to one knee, when

there was a roar of fire arms and the bullets knocked up the ground all around him. He selected his Indian and fired. Foster, armed with a double-barreled shotgun, urged the horse forward almost into the mouth of the canyon and emptied both barrels in the face of a shower of balls and arrows from the foes, who had taken shelter behind rocks.

Foster then wheeled his horse, which had been shot through the neck, and rode back to where Swetnam stood watching a chance to pick off a savage if an opportunity occurred. In a few minutes Ralston, Culbertson, Osborn, Melvin, Boblett and one or two others came up, and, leaving the wounded horse behind, they continued the pursuit, the Indians having disappeared in the retreat.

The boys followed for perhaps two miles through the hills, hoping that they might recapture some of the cattle, but in this they were unsuccessful. They found one large ox that had been killed and left lying as he fell. The Indians got away with nineteen head of cattle, worth at that time between three and four thousand dollars. The wounded horse began to recover, but in less than two weeks both the horses, in spite of all vigilance, became the property of the Apache thieves.

About this time the harvesting began. The barley was so short that it could not be well cut with a scythe and cradle, so that the boys pulled it like flax. The grain was then beaten out with flails or tramped out with oxen upon dirt floors, and the grain separated from the chaff by a man standing on a stool and pouring it slowly out onto the ground, thus allowing the wind to blow the chaff and straw away. By repeating this several times, the grain was got pretty clean, except gravel and dirt, more or less of which had unavoidably got into the grain from the roots and the threshing upon the ground.

In the latter part of July the settlers were scattered about among their respective crops, Lang, Ramstein and Yates across Clear Fork, where they had been camped two or three days threshing their wheat, having two yoke of cattle with them; Whitcomb, with the herd between the fort and the river; Culbertson, forty rods to the south of him at work in the field, and the other settlers at work to the east of and about the fort and the cabins.

About two o'clock in the afternoon a rapid firing was heard at the Dutch camp across Clear Fork, and at almost the same instant the Indians attacked the herder and attempted to stampede the cattle. Culbertson immediately rushed to the assistance of Whitcomb, who had been hit with two balls at the first attack, but stood obstinately trying to defend himself and protect the cattle. Culbertson's onset caused the savages to seek cover, the cattle, in the meantime, running to the corral, where they were secured. The Indians, eleven in number, then ran up the river, crossed over and disappeared. Whitcomb had been only slightly wounded, one bullet striking his pistol, and another wounding him in the hand.

That the camp across Clear Fork had been attacked there was no doubt, but a belt of timber between it and the fort prevented anything from being seen. Half a dozen brave fellows at once volunteered to go to the assistance of the Dutch camp, nearly a mile distant, and started at double quick, when the lookout called their attention to a party of Indians hurrying down the west side of the river in the same direction. This was the band that had made the attack upon Whitcomb, and were evidently hurrying to join their companions who had made the main attack upon the weaker camp.

Matters began to look serious. No time was lost in speculation, for there seemed bloody work before them. When about half through the timber they met Lang and Yates with one yoke of oxen and the wagon, Ramstein lying in the bottom with a severe bullet wound in the hip. It seemed that Ramstein had been alone in the camp when the attack was made, Yates and Lang having gone into the field for a load of wheat.

Ramstein fell at the first fire; Lang and Yates, leaving the team, hurried to his assistance, driving the Indians away, but not until they had plundered the camp. Ramstein, by half crawling and half running, managed to get out, and thus saved his scalp. The Indians, driven from the camp, Lang turned his attention to the oxen, half a dozen Indians being engaged in trying to get them loose from the wagon. With Dutch oaths, he started shooting as he ran to save his cattle. The savages had loosened one pair of cattle, but the wheelers were fastened to a pole with a patent catch that the Indians could not unfasten, so they

started to the river with the oxen and wagon. But Lang, swearing at every jump, and flourishing his six-shooter, which he had now emptied, actually forced them to abandon the oxen, and he then drove them to camp, when Ramstein was loaded in by himself and Yates and started off for the fort, on the way to which they were met as already related.

Determined not to leave the savages in peaceable possession of that side of the creek, it was agreed that the wounded man, accompanied by all but four men, should go on to the fort, and that these four should return and give battle to the Apaches, who numbered about seventy-five warriors. C. M. Ralston, James Polk, E. A. Boblett and J. M. Swetnam volunteered for this work, and immediately began a cautious but rapid movement in the direction of the enemy, distant not more than eighty rods, and whose chattering and exulting shouts could be plainly heard. When the boys had reached a spot about forty feet from the open ground they came to a stop, and Swetnam, getting into the bed of a dry ditch, crawled along to the edge of the brush. Cautiously raising his head he saw a dozen or more Indians, some searching the abandoned camp, and others with torches setting fire to the dry and still unthreshed barley and wheat, while west of him and not more than twenty rods from his companions, was such a din, hubbub and chattering as it seemed nothing less than a hundred tongues all wagging at once could make. Hastening back with the report of his reconnoissance, the boys changed their course so as to get to the edge of the thick brush, about one hundred feet to the northeast of where the bulk of the savages were so busily engaged. All this had not taken ten minutes from the time they left the wagon, and in three more minutes they were crouching at the edge of the brush. About fifteen Indians could now be seen across the field at a distance of one hundred and fifty to two hundred yards, but at that distance they might miss, while the boys knew that others, while hidden by a tongue of brush, were within fifty feet of them, still keeping up that outlandish chattering. While discussing in whispers what was the best course to pursue, seven or eight stalwart warriors came out from behind a point of bushes not more than fifty steps away and marched off in single file, in a direction quartering to the southeast.

The question was solved. Swetnam and James each selected his Indian and fired, Boblett and Ralston reserving. Each of the Apaches fell, as is their custom when fired upon from close quarters. As those who were able arose, Ralston and Boblett sent a couple more leaden messengers into them. The chattering was immediately changed to the war whoop, and painted warriors poured forth like angry bees from a hive, but the boys simply backed a few steps into the willows and reloaded as rapidly as possible. We might here state that all the guns in the valley were muzzle loaders, useless for long distances, but very effective at any distance under one hundred yards.

Before the guns were reloaded, the savages were heard plunging into the river, less than a hundred yards away. The boys knew then the retreat had begun, but they moved from their cover cautiously. It was proposed to follow and give one more volley as they crossed the river, but this suggestion was rejected, such action being considered hazardous, as the enemy would be on his guard. The mystery of the chattering was then solved. The captured oxen, which probably weighed fifteen hundred pounds each, gross, had been butchered and distributed within the space of less than half an hour, and to increase the wonder, nearly every particle, even to the intestines, had been carried away, the only pieces of meat found being those dropped by the little bunch of savages fired upon.

The boys did what they could to arrest the fire started by the thieves, and then returned to the fort.

It now became evident that the Indians were bent on destruction, and the settlers felt that they had got their harvest ready, and that they deserved protection from the government. Earnest appeals were made to that effect to the authorities at Fort Whipple, and fair promises made that were not fulfilled. Peace reigned again for nearly a month, during which time a party of prospectors, nineteen in number, left Prescott, crossing the river about fifteen miles above the settlement, then crossing over to Beaver Creek, near which they were attacked by the Apaches with such vigor and obstinacy that the party gave up the enterprise, coming into the Camp Verde settlement, where they left one man who was severely wounded. Ramstein was lying wounded at

the same time, but through the skill of Culbertson, who acted as surgeon and doctor, both men recovered.

In August the first load of barley was taken to Prescott. It was not choice, but it was the fruits of hard and dangerous labor. In gathering the grain up, which was done by hand, the boys were often stung by scorpions, and sometimes a rattlesnake would roll out of a bunch and go wriggling away, but it was the Apache that was the bane of life.

On arriving at Prescott with the barley the quartermaster was asked to buy it at \$18 per hundred, what it cost to get it from California. He refused because it had gravel in it, and was not so good as the California barley. When questioned as to what price he could pay, he answered, "Don't think I want it at any price."

J. M. Swetnam, who was trying to make the sale, then said, "This is a shame! Soldiers are sent here by the government to protect the people and their property, but instead of doing that, they lie around the forts, where there is no danger, and leave the settlers to protect themselves. Here are a few men who for the purpose of developing the country have staked all they had and gone into a region where twice the number of soldiers would not dare to attempt to stop for one month. They have gone out in the fields to work in the morning, the chances being even that they would be scalped before night. They have appealed to the authorities here for aid, yet no aid has come. They have taken out ditches and toiled early and late. Their cattle and horses have been stolen and run off and a part of their crops destroyed, and when a load of grain, the proceeds of all their labors, dangers and disappointments, is offered to a government quartermaster, he refuses to buy." The officer smiled and said, "Come back in an hour, and I'll see what can be done." The end was that he took the barley at \$17 per hundred, and agreed to take all they had to sell at the same price.

The settlers now had a much easier time, wheat and barley had been harvested, the corn was growing finely, vegetables of all kinds were plenty, so that but for the Apaches it would have been a life of ease, though monotonous. Corn was in roasting ear, and the Indians began to pilfer. They would pass through a field of corn at night and not only carry off, but pull, bite and destroy.

This offended the boys very much. The most of the depredations were upon the corn of the Dutch boys, across Clear Fork, that being the furthest away. After consultation, it was determined to watch the field at night, kill an Indian and hang him up on a pole as a warning.

Lots were drawn for who should stand first, and for each succeeding night until all had stood, or the object secured. Osborn and Ruff came first, so they left the fort at dark and slipped over into the field, where they remained until midnight, and no Indians appearing, they returned to camp. The next couple was Swetnam and Polk James, a rather mysterious young fellow claiming to be from Texas, who had been with them not more than a couple of months, and as brave as a lion.

These two left the camp the next evening, and took their station in the cornfield near the river, where they thought it most likely the thieves would enter. James was armed with a rifle and Swetnam with a double-barreled shotgun with sixteen buckshot in each barrel. They also had pistols and knives.

They took their position and sat there, annoyed by mosquitoes, until about ten o'clock, when an ear of corn was heard to snap on the other side of the field. Each sprang to his feet. There was another snap and another. The Indians were there. Then began a cautious and steady march across to where the Indians were, both stepping at the same time, and trying to time the steps with the snapping of the corn. It was tedious work, but after what seemed to be the best of an hour, they got to the edge of a small piece of Mexican corn which, being the riper, was chosen by the savages for carrying away.

It was the night of August 27. The young moon had sunk behind the hill. A small cloud had gathered almost immediately over them, and it was quite dark, but yet not so dark but what something could be seen indistinctly moving. Swetnam leveled his shotgun at what he was confident was an Indian, and fired. The object fell, and following the report was a stillness that was oppressive. Swetnam stepped forward and placed his foot against the prostrate body. At that moment an arrow whizzed between their heads.

"Look out," cried James, "there was an arrow." Before he had finished speaking, an arrow grazed

his shoulder. At that moment there came a flash of lightning, the only flash, too, as it happened, that the cloud emitted, discovering to them an Indian crouching only fifteen feet away and shooting at them. Seeing that he was discovered, he uttered his war-whoop, and in the double darkness that followed the lightning, although shot at by both the watchers, he escaped. His whoop was answered by several others, when the boys, understanding their danger, reached down at their feet, caught and drew the body which had fallen fifteen or twenty feet back into a taller piece of corn, where they reloaded as speedily and silently as possible. The body they had drawn back with them was only a bag made of an Indian blanket and filled with ears of corn, and the blanket showed that Swetnam's aim had been good, for he had put the whole sixteen buckshot into one hole. The Indian had the bag which saved his life upon his back, and was not more than twenty feet away when the shot was fired.

The guns loaded, the boys listened breathlessly for some sound, when there came a rustling in the corn all around them. It was a terrible moment. Each felt as if he were surrounded by Apaches—as if his time had come. For five minutes they stood trying by the force of their will-power to quiet the tumultuous beatings of their own hearts. Silence again surrounded them, when the excessive strain relaxing, they sat down on their bag of corn to wait. After a lapse of a few minutes more there was another slight rustle, and again all was still. Quiet as the grave, they sat there for an hour, but ere this it began to dawn upon them that the rustling sound that their heated imaginations had wrought into the stealthy movements of a score of crouching, murderous Apaches, was only the rubbing of rank corn blades together as they were stirred by the light breeze. This was proven the next morning, when by daylight a search was made and no Indian tracks found immediately around where they were. The arrows which had been shot at them were found, also the trail by which the Indians had escaped. The blanket was secured and kept by Swetnam for a long time, as a trophy.

This ended the pilfering, but three weeks later the Indians came in force, and judging by the trail, which they made no attempt to conceal,

there must have been one hundred and fifty; there were even tracks of children not more than eight or nine years old in the party, and they got away with at least one hundred bushels of corn, worth \$6 per bushel. The theft was not discovered until the next morning. The moon was at its full, and the next evening, a little after dark, ten men started upon the trail, but after a few miles the Indians scattered in different directions, and though the boys followed for fifteen miles, they found no Indians.

About the middle of September a force of seventeen men was detailed by the commander of Fort Whipple for the protection of the settlers of the Verde Valley. But they were of little use, several of the men from one cause and another were unfit for duty, and the lieutenant commanding was a coward. On the way down, within seven miles of the settlement, the soldiers were attacked by the Apaches, the commissary wagon captured and burned, one or two troopers wounded and two government mules killed. It was a notorious fact through the country that Indians would not hesitate to attack a party of troops double the number of a party of settlers or miners, that would be left unmolested, the reason being that the soldiers had little heart in the fight, and, up to the days of Gen. Crook, were poorly commanded, while the settlers and miners were fighting for their homes, for honor, for life itself.

When the soldiers had been in the valley about one month, the savages made another attack, capturing all the remaining cattle except seven, being the last but seven of a herd of fifty-five head brought into the valley less than eight months before. In this raid the direction and management of the defense was left to the military, though the settlers joined them with their old time vigor. The lieutenant gave his orders, detailing a sergeant to execute them, and was immediately taken ill, returned to his tent, keeping a man to fan him, and did not come out again for more than an hour, not until the fight was over and the Indians gone.

The savages had made the raid from the hills northeast of the fort, and were back again with their booty under cover before the sergeant, with nine troops and eight settlers, got started in pursuit. But half a mile back in the bluffs they made a stand, and but for the watchfulness and intrepidity of two of the settlers, Culbertson and

Sanford, part of the troops would have been surrounded and probably killed. The Indians were well managed, a large party of them were rapidly retreating, followed by the sergeant and five men, not knowing that another party of Indians were concealed while the troops were passing them.

But several of the settlers, coming at an angle, discovered a savage belonging to the concealed band, and knowing that a trap had been set, began firing. This brought the savages from their cover, and made the soldiers aware of their danger. The latter at once began to retreat, and the Indians, leaping forth by dozens, turned their whole attention to the settlers, who stood their ground manfully, but, finding that the savages were being reinforced, and that it was retreat or be scalped, Melvin and Ruff immediately sought the shelter of a ravine and escaped unhurt, but Culbertson and Sanford were not so fortunate. The latter was surrounded, and defended himself as best he could, when Culbertson rushed to his assistance, and the savages were then driven back. The two men then began to dodge from cover to cover, loading and firing as opportunity offered, until assistance arrived and the Apaches fell back. Both men were wounded, Culbertson quite seriously.

In the meantime the sergeant had succeeded in extricating his men from what came near being a serious ambush. Although October, the day was hot, and one of the funny incidents connected with the fight was the appearance of one of the Indians, evidently a chief, from the active part he took, wearing during the whole time a soldier's heavy cape overcoat. A few weeks after this Lieutenant Baty was relieved of the command, Lieutenant McNeal, with a small reinforcement, being sent to take his place. McNeal was a very good man, who seemed to realize the situation.

The Government made arrangements to take all the corn and grain which the settlers wished to sell, paying for the corn, without its being shelled, \$13 per hundred. This was some compensation, but when it was remembered that during the season the Indians had destroyed or carried away barley and corn to the amount of nearly \$2,000, driven off horses to the value of \$500, and cattle to the value of over \$6,000, for none of which the settlers have ever received any reimbursement, it can be easily understood that,

though the enterprise was a success, the profits were not large, considering the labor, anxiety and privations, not to mention the sufferings, of the men who established and maintained this first settlement in the valley of the Verde.

Although the Territory* has felt the general depression prevailing throughout the country, Yavapai County has, on the contrary, rather enjoyed a period of prosperity within the twelve months ending June 1, 1895; in fact, it may be considered one of the best years the county has experienced since 1885, or since the depreciation of silver.

Bountiful rains have given abundance of pasture, resulting in a general recuperation of the stock interests, and renewed search for the yellow metal has given impetus to the mining industry in all parts of the county. The renewed activity has shown a marked increase in the production of gold, and from present indications this section will soon take its place as one of the greatest gold producing counties in the universe. Already the county leads in the production of copper, and when the proper conditions arise it can hold its own as a great silver producer.

The progress made in agriculture has not been of the extent it should be, owing mainly to the lack of irrigation facilities, but movements are on foot at present which, if carried out, will bring about a marked change in this industry within the next few years. The completion of the Santa Fe, Phoenix & Prescott Railroad has caused a general waking up in commercial circles, and has largely increased the number of business houses. The production of gold far exceeds that of any previous year, and the exportation of cattle has been the largest in many years. The range cattle are also in fine condition, and with the present outlook a large increase is looked forward to in the ensuing year. A large amount of capital has been invested in mines within the past six months and as much more is at present seeking investment in this industry.

Socially and morally the county shows, a marked improvement, and the population is rapidly increasing. Education is advancing steadily, and the good health of the people and absence of distress have been one of the features of 1895. Many large mining and irrigation enterprises have been inaugurated or are about to be, and

*By Orick Jackson, Prescott.

altogether it may be summed up that the past twelve months have been Yavapai County's banner year in the march of progress.

The population has been rather on the increase than otherwise, but it is a hard matter to make an absolute and official estimate, from the lack of proper facilities. Owing to the construction of the new railroad the population was exceptionally swollen for the time being, and a fair estimate cannot be made from the great register and other sources. From private information and inquiry, however, it is fair to state that the increase will be at least 2,500 persons, and the total population can be estimated at 15,000. Most of the newcomers are miners and merchants. The total valuation of taxable property shows a large increase over the preceding twelve months. The following table shows this year's taxation and the increase over last year:

Description of property.	Number.	Value.	Value of improvements.	Total value.
Acres of land.....	340,828	\$361,830	\$149,990	\$511,820.00
Town and city lots.....	.....	309,641	507,717	\$17,358.00
Horses	6,690	149,396	.....	149,396.00
Asses	280	4,413	.....	4,413.00
Cattle	85,565	598,955	.....	598,955.00
Sheep	16,399	24,535	.....	24,535.00
Goats	2,463	3,149	.....	3,149.00
Swine	713	2,043	.....	2,043.00
All other property.....	.....	1,117,166	.....	1,117,166.00
Miles of railroad.....	60,552	265,602	.....	265,602.89
Total value of all property in 1895.....				3,494,437.89
Total value of all property in 1894.....				3,105,476.45
Increase in value....				388,961.44

In regard to the settlement of lands, there are no means of securing any data on the subject. Only a rough estimate can be made. The number of acres under cultivation is about 20,000, most of which is devoted to general farming and stock raising. No record has been made of lands reclaimed during 1895.

About twenty miles of irrigating canals and laterals are in use, being mainly confined to the Verde and Agua Fria valleys. None have been constructed during the year. There are many undeveloped water resources within the county limits, however, and when capital can be induced to look into the matter an area exceeding 500,000 acres can be put under irrigating canals at a minimum cost. It can be stated that local agricul-

tural products are about one-fifth of the gross consumption.

Very little land is devoted to horticulture, although the climatic conditions are such that an unequalled quality of fruit of certain kinds can be raised. The lack of water in the best localities is the main drawback. Peaches, apples, pears, cherries, and all kinds of berries do well and are superior to those raised in the valley counties; grapes also mature well and are of exceptionally good quality. Fruits mature from July to September. There is a good field for the orchardist here, as the demand is large and fruits of all kinds keep well. Although this is a county over which thousands of cattle roam, there is not a dairy large enough to supply a first-class hotel all the year round with milk and butter. All dairy products are shipped here from Kansas City and the Salt River Valley, the greater part coming from the East. A splendid field is open here to the dairyman.

The past year has been an excellent one in the live stock industry. The following statement gives the relative values for the past two years. It will be noted that the value of horses has largely decreased, the cause being the completion of the railroad, which has done away with a large part of the freighting formerly done by animal labor. Eighty thousand head of cattle were shipped from Yavapai ranges during the first six months of 1895. Near Prescott and elsewhere in this county small herds of Angora goats have been run with profit, their wool commanding thirty to sixty cents per pound. They require little care.

Stock.	—1894—		—1895—		Increase.	Dec'r.
	Number.	Value.	Number.	Value.		
Horses	8,481	\$211,576	6,690	\$149,396	.....	\$62,180
Cattle	78,141	547,637	85,565	598,955	\$51,318	.....
Sheep	19,000	28,500	16,399	24,535	.....	3,695
Swine	612	1,989	713	2,043	54	.....
Goats	1,200	1,850	2,463	3,149	1,299	.....
Asses	323	3,437	280	4,413	976	.....
Total value		794,989	.....	782,491	.....	.....
Net decr'se ....		.....	.....	.....	.....	12,498

There are forty-two schools in the county, in charge of fifty-two teachers—sixteen male and thirty-six female—the average wages being \$75 per month for males and \$65 per month for females. The number of pupils enrolled during the year was 1,050. Average length of school year, six months.

The churches are seven in number, of the following denominations: Catholic, 1; Methodist, 1; Episcopal, 1; Congregational, 1; Baptist, 2; Methodist, South, 1. Six of these are in Prescott, and the seventh (Baptist) in Jerome. Throughout the county the school houses are used for divine worship on Sundays. The county supports two papers, both daily and weekly—the "Journal-Miner" (Republican) and the "Courier" (Democratic). The number of hotels and restaurants is seventy. This includes forty stations on the various county roads. Nearly all the restaurants are conducted by Chinamen. One hundred and twenty-three saloons pay license. This includes the forty stations.

The climate of Yavapai County is one of its most attractive features. The bracing air and wonderful clearness of the atmosphere is a subject of constant comment from all acquainted with it, and a more healthy area cannot be found in any place in the entire West. Its average annual mean temperature is but a fraction under 58 degrees F., being almost identical with that of Southern California. Extremes of cold and heat are rare, and it is the boast of the county that we have the only climate on earth.

Concerning the mining interests, the past year's (1895) development has been most gratifying, if not phenomenal. Mines that have lain idle for years are once more resounding to the miner's pick and shovel, and a general waking up and activity is noticeable throughout the mining districts. More gold has been produced than ever before in the history of the county, and, what is better, mining men have finally realized that this is the country of deep mining. The completion of the North & South Railroad has solved the problem of working the mines economically, and the industry is now entering upon its greatest era. New capital is coming in to develop the great properties of the county, and the production of the precious metals is increasing daily. Hundreds of prospectors are scattered among the mountains and canyons, and constant reports of rich strikes are being reported. The following tabulated statements show the product of gold and other metals for the year 1894-95.

The data given in this table have been collected from the most reliable sources and are as near correct as possible.

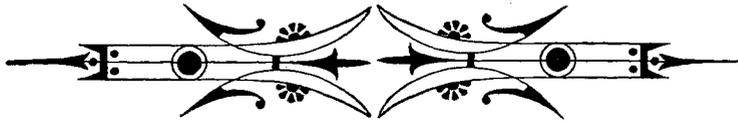
Plants in operation.	Number of Stamps.	Daily capacity of Smelter. Tons.	Annual Product.
United Verde (gold, copper and silver) .....	..	150	\$3,500,000
Congress	40	..	.....
Congress (cyanide).....	..	60	750,000
John S. Jones (Little Jessie) ..	20	..	240,000
Roberts	5	..	20,000
Crowned King	10	..	360,000
Mescal Co	20	..	25,000
Barrett's	5	..	10,000
Whipsaw	10	..	150,000
Swallow	5	..	20,000
Harlan's	5	..	25,000
Senator	10	..	75,000
Groom Creek	5	..	24,000
Morse's	10	..	60,000
Lane's	10	..	150,000
Wade's	5	..	15,000
Marsh's	10	..	30,000
Schureman's	5	..	12,000
Sattes & Co	5	..	12,000
Ryland	20	..	40,000
Humbug	20	..	20,000
Last Chance	10	..	20,000
Venezia (not working)	10	..	.....
Big Bug	5	..	25,000
Sines & Co	3	..	15,000
Dekhunes (not working)	10	..	.....
Del Pasco	5	..	40,000
Prescott Sampling Works .....	..	100	75,000
Phelps, Dodge & Co.....	..	100	50,000
Santa Maria	5	..	15,000
Callen & Co	10	..	25,000
Yarnell	10	..	35,000
Catoctin (not working)	10	..	.....
Gladiator (not working)	10	..	.....
Rupert's (not working)	5	..	.....
Turkey Creek (not working) ..	10	..	.....
Peck	20	..	50,000
Total quartz mines.....	350	410	\$5,949,000
Total placer mines.....	..	..	250,000
Shipments .....	..	..	750,000
Aggregate production .....	..	..	\$6,949,000

The county has many interesting natural wonders. There are also many houses of the cliff dwellers situated not far from Prescott, and many historic ruins. The Castle Creek hot springs will soon become famous as a health resort, the waters being considered equal to the famous hot springs of Arkansas, and some springs lately discovered in the Santa Maria bid fair to become even more famous. It is claimed, and well authenticated, that these springs will cure the most obstinate case of catarrh, no matter of how long standing. An investigation is being made into their merits.

Throughout the country are numerous deposits of onyx, lithograph stone, and red and gray sandstone, and other building materials. Notable among these are the extensive and beautiful onyx quarries at Big Bug. The lithograph stone

deposits are found on Sycamore Creek, the red sandstone at Rock Butte, and the red and white stone within three miles of Prescott. The latter quarry is furnishing a very fine quality of stone for building purposes, and is being used in the construction of homes and business houses in the

city. The undeveloped resources of the county are many and diversified. Irrigating canals are badly needed and will give handsome returns. Reduction works would yield splendid dividends, and a fine field is open to the dairyman and poultry farmer.



CHAPTER XXVI.

YUMA COUNTY.

Yuma County was one of the first four established in the Territory, in 1864. It was first inhabited by whites in 1778, when two missions were established by Franciscan fathers on the banks of the river opposite Fort Yuma. Three years later the Indians rose against the priests, killed several of them and destroyed the missions. In 1849, so great was the travel to California across the river at this place, a ferry was established, but this also was stopped for a while by the Indians, who butchered the company. The Yuma City of to-day was first laid out as Colorado City in 1854, and was later changed to Arizona City, and still later to Yuma. In 1858 rich placer diggings were discovered by Jacob Snively and others at Gila City, eighteen miles east of Yuma, and at one time, immediately succeeding this, a population of over 3,000 was collected at that point, consisting of whites, Mexicans and Indians. It is estimated that nearly \$3,000,000 in placer gold was taken out here. A few rich placers were discovered fifteen miles above Yuma at the Pot-holes and at Cienega, and fortunes were taken out. Immediately succeeding this a thorough exploration of the mines of the county, and indeed of the whole Territory, was made, that is, in 1862-63-64.

In January, 1862, Captain Pauline Weaver discovered gold placer mines about seven miles east of La Paz, and during the year over 1,500 persons were on the ground at work. By 1864 they were nearly all gone to new fields which seemed more promising. During the year 1862 it is estimated that gold to the value of \$1,000,000 was taken out here. La Paz was the first county seat of Yuma County, but in 1870 it was changed to Yuma.

In 1852 Fort Yuma was established and the Indians were checked to such an extent that the ferry was again started and continued to run uninterruptedly and with great profit, having an enormous patronage and a high price, until the

river was spanned by the bridge of the Southern Pacific Railroad Company. The location of the railway station here in 1878 broke up the old order of things for Yuma. For years it had been the chief forwarding point for Southwestern Arizona and had enjoyed a degree of prominence and prosperity unknown to it since the completion of the railroad. The completion of the railroad also rendered the presence of the garrison at Fort Yuma unnecessary and the post was abandoned. In short, the Yuma of to-day is an entirely different place from the Yuma of thirty years ago. In the '70s the Territorial prison was built here, and the "Sentinel," one of the leading papers of Arizona, was established in 1871. Yuma should become a large town, as it occupies an important position, standing at the gateway to Arizona and being already a railway center of much influence.

The agricultural lands of Yuma County, to which the most attention is being paid at this time, are those along the Gila River. This stream, rising in the hills of New Mexico, and joined by many confluents in its course, flows from east to west across Yuma County, mingling its waters with those of the mighty Colorado immediately north of the town of Yuma. Its length within the county is, approximately, one hundred miles. Its valley is from two to ten miles wide, retreating usually in a terrace-like system of broad table lands or mesas.

The Gila, although receiving the not inconsiderable volumes of the Salt and San Pedro rivers, has an erratic manner in summer of occasionally sinking into its own gravelly bed for occasional stretches of several miles, only to reappear undiminished when the stream is narrowed by rocky formations. Only at such points, therefore, is it advisable to choose dam sites. The following is a condensed statement of the irrigation enterprises that are now within the county or in

process of construction, embracing the major portion of the available land of the Gila Valley:

Name of canal.	Length in miles.	Capacity in inches.	Estimated cost.	No of Acres Reclaimable.
Mohawk	35	11,000	\$150,000	40,000
Redondo	5	600	8,000	1,500
Farmer's	13	5,000	15,000	10,000
South Gila	22	8,000	45,000	12,000
Purdy	10	9,000	25,000	7,000
Contreras	7	3,000	9,000	2,000
Saunders	10	5,000	25,000	4,000
Araby	8½	3,500	25,000	2,000
Antelope	7	2,000	10,000	2,500
Toltec	3	30,000	15,000	.....
Total	120½	77,100	\$337,000	81,000

In the event of the completion of the above-described works, in accordance with the original plans of the projectors, the total length would reach 241 miles, reclaiming 267,000 acres of bottom, valley and mesa land, at an estimated cost of \$1,318,000. In order that a more constant flow be secured, to the end that there need never be a scarcity in the Gila during the summer season, and that the life-giving fluid may be spread far out upon the "mesas" and plains, through able management surveys were undertaken upon the Gila, with the view of locating feasible sites for storage dams. Such a site was found, lying within Maricopa County, a short distance from the division line. Here a dam 100 feet high, 1,575 feet in length upon the top, would serve to impound 47,226,009,600 cubic feet of water, or sufficient for the irrigation of 600,000 acres of land during six months of the year. Vast as this amount of water is it would take but a few days of such floods as the Gila is annually subject to, to fill it to its utmost capacity. That such a reservoir will be provided there can be no doubt, for the lands immediately bordering upon the river will be occupied in their entirety before many years by thrifty farmers, and the orchardist will look with longing eye upon the mesas so eminently suitable for the growing of citrus fruit. Organized effort will then bring into existence this logical and effective method of increasing and equalizing the annual available supply of water for irrigation. As it is, there is ample water for the lands now covered by canals, but with the aid of the reservoir's supply, the acreage could be doubled and a great body of land, unexcelled for the growing of citrus fruits, brought into usefulness. Relative to the character of the lands to be irrigated in the valleys of Yuma County, nothing

better could be presented than the following excerpts from a work prepared by Messrs. Trippel, Hicks and Steiger as a report to the Senate Irrigation Committee:

"Fruit culture has so far been prosecuted upon a limited scale, but enough has been learned from experimental tests to demonstrate the positive feasibility of not only producing an excellent quality of the most profitable fruit, but also the ability to raise them for market from three to six weeks earlier than any section of California. The orange, lemon and lime, finding soils and climate congenial, yield in abundance large, clean-skinned and exceeding luscious fruit. They color handsomely, contain the requisite acidity and sweetness, and are very juicy. The fig and pomegranate offer a character of fruit that almost stamp them as indigenous. The latter is not yet recognized to any great extent, but it will certainly become an important factor in arboriculture when its economic qualities are better known. As to the fig, the most desirable variety has yet to be determined. The true white Smyrna would probably prove the best, and that its yield would be prodigious goes without saying, for the tree will bear three crops annually. This assertion is based upon actual productive results of the Mediterranean White fig, that is known not to be the true Smyrna.

"The grape seizes upon what is proffered to it, and becomes hardy, thrifty and adaptable. The choice naturally inclines to the earliest for table purposes. What those varieties should be is in process of experiment upon a scale that will soon solve the question; but it may be said that all kinds mature from three to four weeks before they do in California. They attain great size, cluster tightly on the bunches, are firm and highly colored, and possess exquisite flavor. Heavy wines and brandies of a superexcellent character can be made; but with light wines the reverse is true, for everything apparently goes to saccharine. For ripening wines the climatic conditions are admirable.

The olive grows luxuriantly, and will in the near future become a most profitable investment. Whatever its characteristics elsewhere, here it requires water and cultivation—the more water the better.

The mulberry matures rapidly, and when firmly rooted, vigorously withstands great heat and

lack of water. The plum can easily be raised from the seed. The date has passed beyond conjecture. The plant produces magnificently. Apricots and peaches have been tested. They mature rapidly, bear choice fruit, and are always healthy, giving flattering indications of future success. Cotton has been tried from time to time for years, with varying, but always satisfactory results, and even then without care. If watered regularly, it becomes a large bush, and if properly pruned, a tree, being in flower, ball and cotton the year round. These bushes and trees have, in instances, borne steadily for fourteen years. Wild hemp is a textile plant indigenous to the country. It grows freely and luxuriantly to a great height, often averaging from fifteen to seventeen feet. It has a long, strong fiber, and is frequently worked into nets and fishing lines by the Yuma Indians. It seeds itself annually, and immediately following the overflows of the Colorado River, takes possession of every nook, corner and open area, to the exclusion of everything else. It covers not less than one hundred square miles in an unbroken stretch, commencing near the boundary line of the Gadsden Purchase and extending southward along the river to Hardy's Colorado, below the point where the rising tides of the Gulf of California force back the flow of the Colorado River proper.

The fibrous plant, ramie, has been given a partial trial. The soil, on analysis, was found to contain all the essential properties to render the most favorable results. Sugar cane has been fairly tested with the Sonora cane. The growth was surprisingly great, and the percentage of juice much increased over the yield at the place from which it was originally brought. The sugar beet promises better results for the future than many of the products already mentioned as prominent in the same direction. Samples not fully matured polarized 17 per cent. With proper cultivation the percentage can be raised to from 20 to 25, and, besides, will harvest two crops each year. Wheat does splendidly. In one instance, 483 pounds, seeded to twenty acres, about nine miles east of Yuma, on the Gila River, returned 52,750 pounds, after having been irrigated five times. This was sold in San Francisco, bringing fifty cents per cental over every other kind then in the market. The grain is remarkable for its plump, berry-like appearance. Barley also does

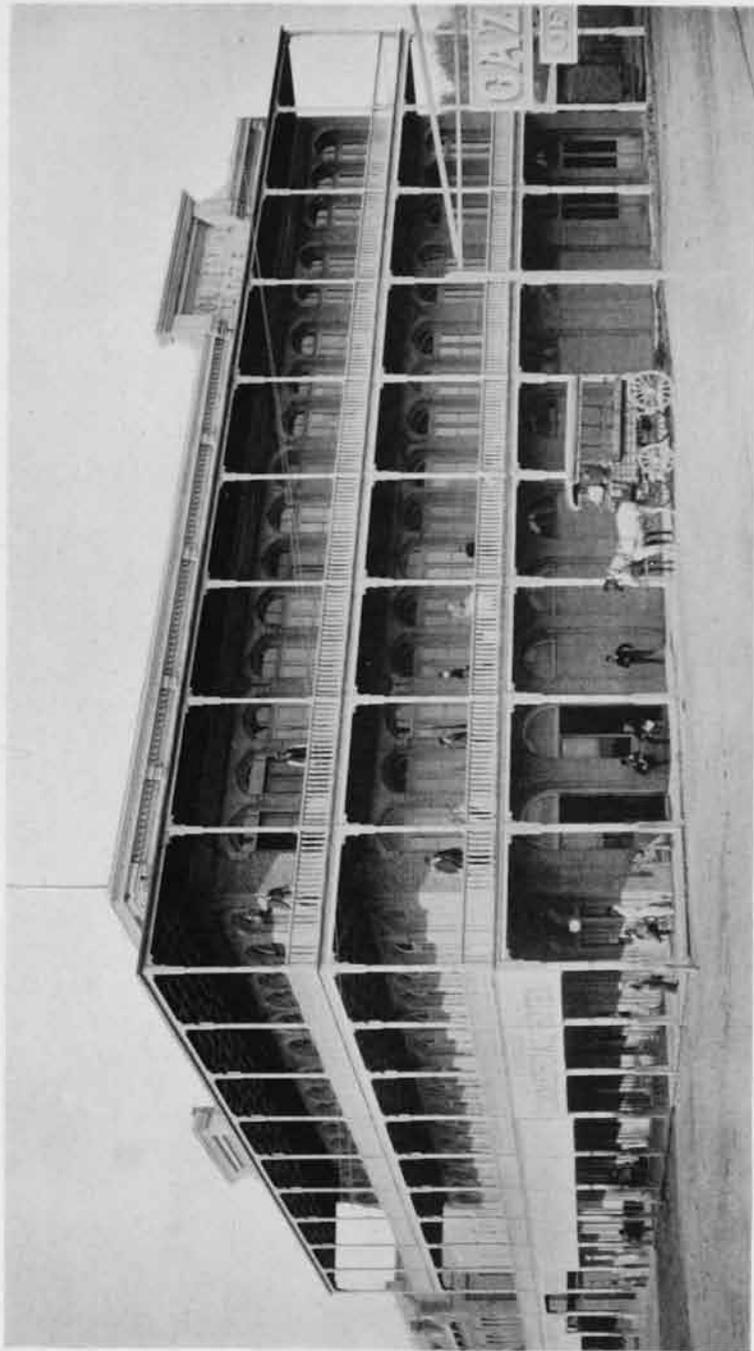
well and will produce two crops—the first yielding from thirty-five to forty bushels of barley, and the second a large amount of hay. Corn is produced in great quantity, yields enormously, and can be grown the year round. The Cocopah corn is noted for sweetness, plumpness, earliness and for its firm and solid grains. Five weeks after planting, roasting ears are plentiful. Alfalfa will cut from five to seven times at an average of two and one-half tons to the acre. Eight acres, but one year old, have yielded seventy-four tons, with more cuttings made afterward.

Sorghum, raised for feed, is both valuable and prolific. It frequently reaches fifteen feet in height, yields from fifteen to twenty tons per acre, and is worth \$15 per ton. Several crops can be harvested annually. Vegetables, kitchen and garden stuff, melons, etc., grow all the year round in unlimited quantity and excellent quality. Some time since a Gila Valley farmer planted fifteen pounds of Irish potatoes on a piece of bottom land that had been overflowed, from which he harvested over 700 pounds. The sweet potato produces enormously, and equals the choicest brought from South Carolina. Peanuts mature rapidly and abundantly, yielding a nut both plump and toothsome. Oranges and lemons will never reach their full measure of sweetness in California, where even an occasional fog is seen, and no raisins are so sugary as those grown in localities untouched by the salt breezes of the ocean. From actual demonstration it is known that Yuma County is capable of producing an orange that will more than vie with the products of the Riverside or San Gabriel Valleys.

In 1895 very little wheat and corn were raised. About 150,000 pounds of barley were marketed, 8,000 tons of hay, and the honey derived from 250 stands of bees. The number of cattle was 2,000, horses 500, swine 675, a considerable increase of all three over 1894. The Harqua Hala mines, now in operation with twenty stamps, were discovered and opened in November, 1888, by Harry Walton, Robert Stein and Mike Sullivan.

Most of the mining* done in this county is placer mining. Immense quantities of gold are being daily taken out of the vast deposits of placers. The estimated output of gold from the county during the year ending June 30, 1895, is

*By John W. Dorrington, Yuma.



COMMERCIAL HOTEL,
PHOENIX, A. T.

by a conservative estimate placed at \$800,000. The prospect for 1896 is much better. No silver or copper was mined in the fiscal year 1894-95.

There are eight public schools in the county, with ten teachers and 605 scholars, and the school term averages seven months each year. There are but two church organizations in the county—one Methodist and one Catholic. The "Arizona Sentinel," which is independent in politics, is the only paper published in the county. The general sentiment of the citizens is in opposition to the admission of Arizona to statehood. There are twelve restaurants and twelve saloons in the county. The taxable property of the county, real and personal, in 1895, was \$998,039.62. Its actual value was \$2,500,000.

Harrisburg has a post office and several stores. A ten-stamp mill is also located here, which does custom work. The water works supply the needs of both camps. Harris & Bates and Major Clay are among the principal owners. The point of supply for this district has heretofore been Phoenix, but as the distance from Aztec, Yuma County, is only about fifty miles, as against one hundred from Phoenix, supplies are now going that way. The Yuma supervisors recently authorized some money to be spent in improving the road between Aztec and Haqua Hala, and the mine owners also contributed enough so that the road could be put in good condition. There are now employed in this district over one hundred men, which number will soon be increased. Those interested in Haqua Hala have great faith in its future. South of Haqua Hala is Centennial District, containing many excellent properties, mostly of free-milling gold ore. Water and wood are easily to be had, and an early development is probable. Up the Colorado River are a number of mineral deposits of large extent, the best developed being in Silver District, forty miles from Yuma.

The dates of ripening of fruits and vegetables in the vicinity of Yuma are as follows: Peas and tomatoes may be had all through the winter months; asparagus, February 1; strawberries, March 1; wax beans and summer squash, April 1; apricots, April 25; figs and peaches, May 5; grapes and dates, October 15, and navel oranges, November 20. These figures should prove conclusively that the Yuma country is at least six weeks ahead of California in this respect.

It can thus be seen that the farmer or fruit raiser may obtain almost any price within reason for his products, and one that would enable a man with moderate means to pay expenses while his citrus fruit trees were growing.

Yuma will some day do an immense trade in lemons, which, in this section, will pay a profit four years after planting. The Yuma lemons are juicy, thin-skinned, and have great acidity. They are pronounced by experts to be equal to the finest imported. What will give the fruit raiser another great advantage is the fact that the Yuma lemons ripen in October and November, a period when the highest prices prevail in the United States for this needful fruit.

The magnificent tract of 3,000 acres which comprise Yuma Heights will shortly be thrown open for the settler, land with water rights being obtainable at \$100 per acre. A great many improvements will be put upon this tract, including a fine hotel and costly residences.

Orange Avenue, now in course of construction, will, when finished, be one of the finest drives in the West. Commencing in the center of the city, it will take a graceful curve to the southwest and run through Yuma Heights in a southerly direction. The avenue will be three and one-half miles long, and bordered on both sides by magnificent orange and olive trees. The broad sidewalks and driveway will be of native cement-like rock and clay.

The main street of Yuma will shortly be graded and macadamized. A number of fine buildings are also in contemplation, while the Southern Pacific Company will immediately build an elegant hotel on a rocky eminence commanding a fine view of the river and surrounding country.

The yellow flood which pours down Colorado River throughout the year will ever be a boon to the fine lands in this section. Professor Gully estimates that it deposits \$7.50 worth of fertilizing matter on every acre which it irrigates. It carries three times as much fertility as Egypt's Nile, being the most fertile river water in the world.

As a health resort Yuma has no equal in America. Her atmosphere is dry and pure the year round. The moisture is only 25 to 30 per cent., against 75 to 80 per cent. in other localities. Invalids and health-seekers can remain out of doors in Yuma every day of the year. The annual rainfall only averages two and a half inches, and there

are more sunny days here than in any other part of the country. Frosts and fogs are strangers to this section.

There is but one considerable settlement, the county seat, Yuma, located below the junction of the Colorado and Gila, at the point where the Southern Pacific Railroad enters the Territory from California. It has now about 1,200 inhabitants, mostly Americans, of an excellent class.

Owing to the high prices of lumber the principal building material is adobe (sun-dried bricks), which is well adapted for this climate, where little rain falls. With few exceptions the buildings are one-story, with thick walls and flat roofs, giving a somewhat oriental appearance. The court house is a large one-story adobe building, constructed about 1879. The school district owns a fine, large lot, but the present building is too small, and will no doubt be replaced by a roomy brick building soon. The Catholic is the only church organization represented with a building, and has also a convent school conducted by the Sisters of the Sacred Heart. The Ancient Order of United Workmen is the only secret benevolent order having an organization, and it owns a comfortable building containing a lodge hall.

The Southern Pacific Railway Company makes Yuma its division headquarters for this portion of its line. It has a large freight yard and keeps great quantities of road supplies, such as ties, rails, coal and ice. The company also owns the water works, which supply its own needs and a good part of the town. A pumping plant on the bank of the river keeps a large reservoir filled, where the muddy water of the Colorado settles and becomes clear and sweet. The company has a twelve-stall round house, freight depot, cottages for employes, also a reading room for employes, together with water tanks and a number of other buildings.

The Arizona Territorial penitentiary is located at Yuma and disburses between \$50,000 and \$60,000 a year in the town. This institution is located on high ground, having the Colorado on the north side and the Gila on the east. About eighty acres of ground have been leveled off for the necessary buildings and farm. The buildings are made of stone and adobe, and are surrounded by a high, thick wall of the same materials. Outside the walls are the superintendent's residence,

office, stables, etc. The prison has its own water-works and electric lights. The average number of prisoners is about 150. Blacksmith and machine shops, carpenter shop, tin shop, shoe shop, tailor shop and laundry, together with grading, give employment to the men most of the time. Many of them have become very skillful in the manufacture of fine laces, canes and inlaid wood-work. A proposition is now on foot to employ prison labor in preparing wild hemp for market. This plant grows wild over thousands of acres south of Yuma and has a fiber superior to manilla.

Yuma carries on considerable trade with the country to the northward by means of the steamers of the Colorado Steam Navigation Company. The business is carried on with two large steamers and a number of barges. Monthly trips are made as far north as El Dorado Canon, in the State of Nevada, 600 miles from Yuma. At Needles connection is made with the Atlantic & Pacific Railroad. Steamers take provisions, mining machinery and various supplies to the different points and take away their bullion and ores. A voyage up the Colorado is a delightful recreation and can be recommended to those who are tired of the worn-out lines of travel. The scenery is magnificent, and many places of interest can be seen. Yuma is a port of entry and a custom house is maintained, though little business now passes through it. Nearly every branch of business is represented in Yuma. Everything in the necessary line can be obtained at reasonable prices, considering our remoteness from general markets.

There are two able weekly newspapers published. The "Yuma Sentinel" was the pioneer of such enterprises in Arizona, having been established in 1871. It is published by Hon. John Dorrington. The "Yuma Times" is a sprightly sheet that made its appearance about 1892 and appears to prosper under the management of the Yuma Publishing Company.

Ehrenburg, in the northern part of the county, in early days was the ferrying point upon the Colorado River for the greater portion of the traffic of northern and Central Arizona, but since the arrival of the railroad has lapsed into a small mining hamlet. The canal operations in the Gila Valley have revived interest in that section, and a few small towns have been started.

CHAPTER XXVII.

BIOGRAPHY AND MISCELLANY.

COL. WILLIAM CHRISTY. The banking business is a clean and honorable one and the most astute and able minds of the country find in that line the most congenial work. No branch of business in America can make a stronger showing of solid thinkers, brilliant financiers or more subtle organizers. The city of Phoenix, Arizona, can show its quota of strong and capable bankers and a sufficiency of banking capital to meet the demands of business. Men of large means and of great energy are identified with these institutions and the various officials are peculiarly qualified for their respective duties. The Valley Bank of Phoenix merits special attention for its prominence in the community and for its popularity from its very inception. Col. William Christy, president of the bank, was born in Trumbull County, Ohio, February 14, 1841; son of George and Jane (Marshall) Christy, the father a native of New Jersey and the mother of Trumbull County, Ohio. His maternal grandfather, Isaac Marshall, was a farmer by occupation and a soldier of the War of 1812. The paternal grandfather, William Christy, was also a farmer but in connection was also engaged in teaching school. He passed the last fifty years in Trumbull County, Ohio. George Christy, father of subject, followed the occupation of his ancestors, but was also a prominent merchant. He carried on the latter occupation at Fredericksburg and Ohlstown, Ohio, for some time, but in 1854 moved to Iowa and settled in Clark County, where sometime later he held the office of sheriff for four years. Here he cultivated the soil until his death in 1869. The mother is still living and resides on the homestead. Of the six children born to them our subject is the eldest son. He received the rudiments of an education in Ohio, but when in his thirteenth year moved with his

parents to Clark County, Iowa, where he received a good, practical education. He was early trained to work and make himself useful, for in those days an education was of secondary importance. At the call for troops when the Civil War broke out he was one of the many to respond and enlisted in Company I, 15th Iowa Infantry. After serving one year in that regiment he was discharged on account of lung trouble, but in June, 1863, he re-enlisted in Company D, 8th Iowa Cavalry, and served until cessation of hostilities, being mustered out and discharged at Macon, Georgia. He was sergeant at the time of his first enlistment and while in the cavalry service he held every commission up to captain, and was mustered out as a brevet colonel. He was severely wounded in the raid in the rear of Atlanta, being pierced by four bullets, two of which passed through his body, one through his hand, and another through his arm. He led a saber charge and while thus on duty received the wounds. Colonel Christy was captured by the enemy and taken to Millen prison, Georgia, where he was held for about six months, suffering untold hardships during his confinement. He was paroled and afterwards exchanged on a special parole of about 1,000 sick and wounded between Hood and Sherman. The Colonel participated in many of the prominent engagements, the most noted being: Shiloh, siege of Corinth, Iuka, Corinth, Sherman's campaign to Holly Springs and all the campaigns of Gen. Sherman's army until he was captured July 30, 1864. After being exchanged he was with Wilson's cavalry corps through Selma, Montgomery to Macon, where he was discharged. Returning to Iowa he attended school one year and then went to Osceola, Clark County, Iowa, and became cashier in H. C. Sigler's Bank, remaining

there until January 1, 1873. In the fall of 1872 he was elected treasurer of the State of Iowa, and held the office four years. Afterwards he engaged in banking in Des Moines, Iowa, and was cashier of Capital City Bank until 1881, when he was made cashier of Merchants' National Bank of Des Moines. In the latter he remained until in September, 1882, when he resigned on account of failing health, and a little later of the same year came to Arizona, where he expected to regain his health. Stopping at Prescott he purchased a cattle ranch about forty-five miles northwest of that city, on which he lived for a year. In November, 1883, he helped organize the Valley Bank, of Phoenix, became its cashier and moved to this city. In the year 1893 he was made president of this bank and still holds that position. Colonel Christy is one of the most progressive men in the territory and is a leader in all worthy movements. He assisted in organizing the Arizona Improvement Company in 1887, of which he is vice-president, and he is also interested in the four irrigation companies on this side the river. Colonel Christy resides on a fine ranch joining the city of Phoenix on the west, 440 acres, all of which is under cultivation and is considered one of the finest farms in the valley. He has an orange orchard of twenty acres which is just beginning to bear, also an olive orchard about to bear, and peach, pear, plum, apple, fig, almond and prune orchards. He also raises grapes in abundance and in fact a little of everything on his farm. At a rough estimate he owns about 1,500 acres in the valley, all of which is very valuable. He is known far and wide as a whole souled, courteous and genial gentleman, and always greets his friends with warmth. In personal appearance he is a large, well proportioned, fine looking man. Socially he is a Knight Templar in the Masonic Fraternity and he is also a member of the Grand Army of the Republic and the Loyal Legion. He was married August 22, 1865, to Miss Carrie E. Bennett, a native of New York, and they have four sons and one daughter: Lloyd B., George D., Shirley A., Carrie L. and William C. The family holds membership in the Methodist Church. Colonel Christy was treasurer of Arizona Territory from 1891 till 1893 and was also treasurer of the insane asylum for two years. He is a staunch Republican and was chairman of the

Iowa State Central Committee for two years, and since living here has been chairman of Arizona Territory Central Committee for four years.

HON. C. M. BRUCE, Secretary of the Territory under the present administration, brings to the discharge of the duties of his office a varied experience, good business qualifications, and all the advantage that high character and ability, united with education and extensive travel, give. Mr. Bruce is, by birth, as well as by ancestry, a Virginian. Staunton Hill, where the days of his boyhood were passed, is on historical ground, being situated midst the last scenes in the lives of Patrick Henry and John Randolph of Roanoke, and is one of the most beautiful homes in the Old Dominion. The estate, which is yet owned by his parents, is a large one and has been in the possession of the family since the first settlement of Virginia. His father, Hon. Charles Bruce, was at one time a prominent member of the Senate of Virginia; and his mother, formerly a Miss Seddon, was a sister of Hon. James A. Seddon, secretary of war of the Confederate States. His family has always occupied, both socially and politically, a prominent position. In more recent years members of it have achieved considerable distinction in the literary world. Philip A. Bruce, brother of the secretary, now corresponding secretary of the Virginia Historical Society, is the author of "The Plantation Negro as a Freeman," a work which is regarded as one of the most important contributions made with regard to the negro problem, and has also recently published a book on the Economic History of Virginia in the Seventeenth Century. Another brother, James Douglas Bruce, is professor of Anglo-Saxon in the Bryn Mawr University, at Philadelphia. Some recent discoveries made by Professor Bruce, at the British Museum, in London, in connection with the origin of the Psalms of David, have attracted wide attention among the scholars of Europe. William Cabell Bruce, another brother, is president of the Maryland Senate. To readers of current periodical literature it is unnecessary to say anything of the place which his cousin, Amelie Rives, now Princess Troubestzkoy, and his brother-in-law, Thomas Nelson Page, have attained among the new writers of the South.

Leaving the scenes of plantation life at an early

age, Mr. Bruce first passed through the schools of his native State, and then completed his education abroad at the University of Berlin. On his return to Virginia he commenced life by a thorough business training as the representative, for the time being, of the interests of his father and brother in two large mercantile establishments of the State. It was while he was thus employed that he accepted an invitation of some New York and Virginia capitalists to visit Arizona during the mining excitement of 1880, and so well pleased was he with the Territory that he decided upon making it his future home. Accepting the position of financial agent of the Washington Silver Mining Company, composed for the most part of Eastern capital, he continued occupying this responsible position for two years, then resigned to become interested, on a large scale, with California friends, in the cattle business.

For several years Mr. Bruce was president of the Live Stock Association of the Territory and chairman of the Live Stock Sanitary Commission. In 1887 he was sent, by the governor of the Territory, on a special mission to Washington to secure from the Federal Government quarantine regulations to govern the importation of cattle into Arizona from Mexico; and although strongly opposed by the Mexican minister at Washington, Mr. Bruce accomplished the object of his mission in an eminently successful manner. While he has never taken a very active part in politics, Mr. Bruce has always displayed a deep interest in the public affairs of the Territory. The Democratic County Convention of 1892 nominated him, without a dissenting voice, for the Territorial Council in the face of his protest that his business arrangements were such that it would be impossible for him to make the canvass, but notwithstanding this serious drawback he was only defeated by a narrow majority. His popularity is shown by the character and position of those by whom his application for his present position was endorsed. These include the leading citizens of Arizona, together with such men as Leland Stanford, N. T. Smith, the treasurer of the Southern Pacific Railroad Company; Lloyd Tevis, ex-president of the Wells-Fargo Company; the governor of Virginia, ex-Senator Norwood, of Georgia; Senator Daniel, of Virginia; the distinguished author, Thomas

Nelson Page, and others. April 1, 1896, Mr. Bruce succeeded Governor Hughes as acting governor of the Territory, and, for a period, performed the duties of the executive office. His selection as secretary of the Territory was highly creditable to the Democratic administration, both Federal and Territorial. Among the people of Arizona who have known him for the past sixteen years, and who have universally approved of his appointment, he stands deservedly high as a man of ability and the most exalted character.

MAJOR J. W. EVANS. It is said that he who succeeds in life under favorable circumstances has talent, but he who succeeds under unfavorable circumstances has genius. Major J. W. Evans is a man who has made his own way in life and by his energy and determination has met with a just reward. He was born in Fayetteville, North Carolina, July 4, 1851, and is one of the most active and energetic business men in Arizona. He is a man of strong traits of character and has been identified with the progress and advancement of the Territory probably more than any other man living in it. Most all the big enterprises that have been attempted, to bring Arizona to the front, Major Evans has taken an active part in. The major is a son of Joseph W. and Jane M. (Gause) Evans, both natives of Cumberland County, North Carolina. The father was of Welsh stock and his ancestors were among the first to settle on Cape Fear River. He died in 1854. Our subject began the battle of life for himself in 1865. He left Fayetteville two years later and turned his face toward the setting sun. Locating in Phoenix in 1872 he was first connected with the Arizona Stage Company, his business being to look after express matters. He had the general supervision with this company until 1877, when he took charge of Wells-Fargo Express business as a special agent. Severing his connection with this company in 1880, he became chief deputy United States marshal for the Territory and served in that capacity until 1885, when he embarked in the real estate and loan business in Maricopa County. He owns much valuable property in Phoenix, is a pioneer in the real estate business and has met with unusual success, being considered the best authority in such matters in Cen-

tral Arizona, where he has resided for twenty-four years. He is an earnest and persistent worker in the development of the resources of his county and enjoys the unbounded confidence and esteem of his fellow men. His business is one of the most extensive in the Territory. His office, 20x70 feet, occupies one of the most conspicuous corners in the city, being on the ground floor of the Porter building. Mr. Evans is a director in the Arizona Improvement Company, Water Power Canal Company, Grand Canal Company, Maricopa Canal Company, Salt River Valley Canal Company, Orange Land Company, New England Land Company and is president of Maricopa, Salt River Valley, Grand and Water Power Canal Companies, and also Orange Land Company. He owns fruit, alfalfa and grain ranches in the East, North and Northwest parts of the valley. Mr. Evans is ex-president of the Phoenix Chamber of Commerce, a body whose intelligent and progressive policy has made Maricopa County what it is. He was married June 30, 1896, to Mrs. Sarah Gertrude Lee in Detroit, Michigan.

HON. JOHN Y. T. SMITH. When a grain of wheat is cut across the middle and examined under a glass, the central parts are found to be composed of a white substance; if the grain is dry this interior readily becomes a pearly powder. Near the outside of the kernel the texture is more compact, and at the surface it becomes horny. This added firmness is produced by the increasing quantity of gluten, as the analysis advances from center to circumference. Understanding the structure of the grain, it has been the object of the miller to separate the different parts so as to get different grades of flour. It is the gluten which gives flour its strongest property, and it is in the nice separation of this constituent that the roller process excels. As one of the finest examples of the application of this process and machinery generally to the manufacture of fine flour, the Phoenix Flour Mills, of Phoenix, Arizona Territory, command detailed mention. This extensive enterprise started with one burr mill in 1879 under the management of Smith, Stearns & Company, and continued on a small scale until 1881. Then John Y. T. Smith bought the entire concern and increased it to a four burr mill, which he con-

ducted until 1889. At that date the new roller process was put in and the mill has been one of the foremost ones since that time. In 1890 the Phoenix Milling and Trading Company was incorporated, the stock being principally owned by John Y. T. Smith, and he became its president. The mill was erected on its present site in 1889, and is a well constructed brick with a warehouse attached and one detached. The mill proper is three stories and basement and is situated on what is Railroad Place, Lot D. The capacity of the mill is 100 barrels every twenty-four hours and the mill is run about twelve hours per day. The machinery was built by J. Wagner & Company of San Francisco, Cal., and is one of the best equipped mills in the Territory. It has all the modern appliances and the flour is first class. They supply the Territory with their flour and its reputation has extended far and wide. John Y. T. Smith, the most efficient proprietor of this vast concern, is a native of the Empire State, born in Erie County, near Buffalo, September 16, 1831. When but a small boy he was left an orphan and as a consequence had limited educational advantages. The father was a farmer and after his death young Smith made his living as best he could. His parents died in Portsmouth, Ohio, and in 1845 he went to Illinois, where he worked on a farm for some time. Later he carried the flag for the surveyors of the Alton & Terre Haute Railroad. In 1853 he, in company with a crowd of young men, crossed the plains to California. They went horseback and drove a herd of cattle, though disposing of them at different points. While at Salt Lake City one of the young men was taken sick and it fell to the lot of Mr. Smith to remain with him. Later, after the young man had recovered, and was able to travel, they proceeded on to Trinity County, Cal. They had been six months enroute. Here Mr. Smith discovered several mines and was actively engaged in mining until 1858, when he went to Frazier, British Columbia, during the great excitement. While there he followed mining until 1859, when he returned overland to Victoria and, taking the steamer there, subsequently landed in San Francisco. His patriotism was aroused in 1861 and he enlisted in the 4th Infantry of California Volunteers, and served until 1865. Part of his service was in California and part in Arizona, and he was sta-

tioned at various points. Mr. Smith enlisted as a private, but for meritorious conduct was promoted to second and then to first lieutenant. He marched across the Colorado desert, on foot, several times where the railroads now run, and experienced many hardships, but was never discouraged nor disheartened. At the close of the war he was discharged and mustered out at Presidio, California, and subsequently came into Arizona in charge of government transportation. He was sent to Ft. McDowell, where he had charge of the government farm for a few years, and was also post trader at the same place until 1881. In the meantime he started a store and mill at Phoenix, and in 1881 removed his family to Phoenix, where he has since made his home. He is the proprietor, too, of the big flouring mill of Phoenix and is also engaged in merchandising. Aside from this he is also interested in the gold mine, known as the Union Mine, sixteen miles north of Phoenix, and owns considerable real estate. Success has rewarded his efforts and he is one of the wealthy men of the city. Mr. Smith has been a member of the House of Representatives and speaker of the 15th session. He served three terms in the Legislature and has been Territorial treasurer, member of the board of equalization and school trustee. He is one of the promoters of Phoenix and is well known throughout the Territory.

GEORGE HENRY NICHOLAS LUHRS.

It is not always the men who start with the largest capital and under the most favorable conditions who do the most to build up the trade of a city, or, eventually, the most to benefit themselves; those who start upon a smaller basis and gradually increase in prosperity, step by step, usually accomplish the most. George H. N. Luhrs belongs to the progressive order of men and has been the architect of his own fortune. He was born at Neuhas, a. d. Oste, Hanover, Germany, March 31, 1847, the son of John Christoph Luhrs and Miss Sophie Margarete Henriette Wilhelmine Dickmann, who were also natives of the same place. The father was a wagonmaker and this trade our subject began learning under his father, after first receiving a good practical education in the common schools. With the usual hope of youth and a more than ordinary amount of energy he determined to cross

the ocean and make his home in America, and accordingly, at the age of twenty, located at Camptonville, Yuba County, California, where he remained about sixteen months following his trade. He then went to San Francisco and from there, in January, 1869, to White Pine, Nevada, where he continued his former occupation for seven months. On August 14th of that year he started for Arizona, and the following September arrived at Wickenburg, where he worked at wagon-making and carpentering at the Vulture Mill until July, 1872. In January, 1873, he went to Smith's Mill, fifteen miles away, which place he left in 1874 for Ehrenberg, on the Colorado river, where he remained three months. He then went to Prescott, but after a short time returned to Wickenburg and was employed by the California and Arizona Stage Company at wagonmaking until the last of May, 1876. Mr. Luhrs then made a trip to the old country, but in October returned to the United States and resumed his trade at Wickenburg for his former employers. Phoenix became his home in March, 1878, and he was engaged in business alone until September 19, 1881, when he became a partner of Newell Herrick, under the firm name of Herrick & Co. July 13, 1883, they added to their other enterprises the livery business. In March, 1886, they began the erection of the Commercial Hotel, which they rented the following December. The party to whom they rented died in January, 1887, and Mr. Luhrs and his partner completed the business and during the summer of 1887 made a large addition to the building, making it a three-story structure. The firm closed up their blacksmith business in October, 1887, owing to a marked increase in their hotel business, which required all their time and attention. October 27, 1890, the partnership was dissolved, Mr. Luhrs purchasing the entire interest of his partner in the hotel, real estate and livery business. This he has continued to the present time and is justly regarded as one of the most popular hotel men in his part of the Territory. He is the owner of the block diagonally across the street from his hotel and is one of the solid, financial men of Phoenix. February 10, 1884, Mr. Luhrs married Miss Catherine Margarete Dodenhof, who was born January 3, 1862, in his native town in Germany. Four children have been born to their union: Arthur Cleveland, born December 14,

1884; Ella Louise Henriette, born August 11, 1886; Emma Sophie Johanne, born December 13, 1888; and George Henry Nicholas, born June 28, 1895, who was named in honor of his father. Mr. Luhrs is prominent in Masonic circles, being a member of the Blue Lodge, Chapter, Commandery and Shrine in Phoenix. He was the first to be admitted in the Blue Lodge during the time it was working under dispensation, September, 1879, and was the first in the Chapter (May, 1880). In May, 1883, he became Knight of the Temple at Tucson, and in 1891 became a charter member of Phoenix Commandery. February 10, 1896, he became a member of the Ancient Order of the Mystic Shrine, of which he is at present the treasurer. Mr. Luhrs has also been treasurer of the Blue Lodge, Chapter and Commandery since 1893, and of the Grand Commandery since November of that year.

E. J. BENNITT. E. J. Bennitt was born June 13, 1853, at Moreland, near the head of Seneca Lake, in Schuyler County, N. Y. His parents, John M. and Clymena Bennitt were descended from New England ancestors, who went to Wyoming Valley, Pa., and from there to Chunung Valley. Our subject received a good academic education in Havana, N. Y., and a preparatory course in Alfred University, at Alfred Center, N. Y., entering Union College at Schenectady, N. Y., in the fall of 1872, and graduating the spring of 1875 as a civil engineer. In May, 1875, he started for Arizona, and in June was joined by his father, mother and youngest brother, B. G. Bennitt, at Junction City, Kas., from where their real journey commenced on June 26, 1875. The start was made with ox teams under the leadership of Hon. A. W. Callan, the party consisting of about 40 of their own company which, later, was augmented with enough more to nearly double that number. After leaving the line of the railroad at Granada, on the Arkansas River, the caravan developed into a semi-military organization, owing to the hostility of the Indians at that time, and always maintained an armed sentinel in the camp, and armed and mounted guards for the stock. After five months of continuous travel across the almost then unknown desert of America, they arrived at Prescott, Arizona, on Nov. 3, 1875. The hostile Indians had just been subdued by Gen. Crook, but even then

no one ventured from town without being armed. From this time until November, 1882, E. J. Bennitt followed mining, merchandising, and his profession, and, in 1880, with E. A. Eckhoff, located between Phoenix and Maricopa, the first line of north and south railroad projected in the Territory. In November, 1882, with Col. Wm. Christy, and others, he organized the First National Bank of Phoenix, which later was reorganized into the Valley Bank in which, as assistant cashier, he remained until the fall of 1890. In March, 1892, he assisted in organizing the Phoenix National Bank, of which he was cashier until June '94, when declining health, caused by overwork, compelled him to seek the less arduous business of brokerage and loaning. He was married to the eldest daughter of Guy and Saidee Bennitt, on Oct 3, 1888. Being of a social nature he joined the Masons in July, 1874, in Myrtle Lodge, No. 131, at Havana, N. Y. He was advanced to Prescott Chapter No. 3, at Prescott, Arizona, in 1881, and became a member of St. Omer's Commandery, at Elmira, N. Y., in 1887. He assisted in organizing Phoenix Commandery No. 3, K. T., in 1891; was appointed generalissimo. He was elected eminent commander in November, '93, and grand commander of the Grand Commandery of Arizona at the conclave held in Prescott in November, '95. Mr. Bennitt has occupied many positions of trust, but has invariably declined those of political preferment.

JUDGE T. D. SATTERWHITE. As a branch of human endeavor the profession of law is one of the most momentous and important of callings, and the man who takes upon himself the practice assumes the weightiest responsibilities that the confidence and trust of his fellow men can put upon his shoulders. It brings into play the most brilliant talents, the most extensive knowledge, the strongest sentiments, moral, spiritual, material, and its power for good or evil is vast and invincible. As a young man whose honor is above criticism, and whose ability places him in the front rank of the Arizona bar, may be mentioned Judge T. D. Satterwhite. He is a native of Columbia, S. C., born September 19, 1851, and is of French-Irish origin. His ancestors on the paternal side came to America with the Huguenots and settled in South Carolina. There the father of our subject, John Alex-

ander Satterwhite, was born. The mother, whose maiden name was Mary Woodward, was also a product of the Palmetto State. When our subject was three years old his parents moved to Texas and there the father and mother died a few years later. He remained in that state for six years and then moved to Gilroy, California, Santa Clara County, and there young Satterwhite received his early education. He afterwards engaged in ranching in the same county and continued in this business for some time. He was three times elected city clerk of Gilroy, which office he retained until 1881. During his incumbency he applied himself to the study of law. Afterwards he came to Arizona, and in 1883 he began the practice of his profession, in which he has been eminently successful. In 1886 he was a candidate for county judge on the Democratic ticket but was defeated with the rest of the ticket. This court was soon abolished and Judge Satterwhite was appointed judge of the probate court of Pima County, by Governor Zulick; this position he held for two years. In 1893 he was appointed by Governor Hughes as a member of the Territorial Board of Equalization for the first judicial district of Arizona, and was an incumbent of that position for two years. In 1895 he was appointed attorney general to fill a vacancy and in March following was appointed and confirmed as attorney general for the full term. In 1893 he also held the office of United States commissioner. All these offices came to him unsought, except that of the county judgeship. The judge is a brother of the late Senator Satterwhite, of California. His wife was Miss Alice M. Clark, of Oswego, New York. This gentleman's integrity and unquestionable uprightness have won for him the esteem of his clients and the respect of his associates.

COL. JAMES D. MONIHON. Phoenix, Arizona, may well be proud of the amount of brains and energy possessed by her representative business men, among whom few, if any, have a higher standing for character and enterprise than Col. James D. Monihon. He is one of the pioneers of this section and has been a leader in every enterprise that tended to improve or develop the Territory. Colonel Monihon is a native of Oneida County, New York, born in 1836, but when two years old was taken to St.

Lawrence County, that state, by his parents, and there grew to manhood. His early boyhood was passed in working on the farm and in attending the common schools, and one year of his time was spent in a dairy, making butter and cheese at a salary of ten dollars per month. An attack of the "Gold Fever" caused him to leave his native state in 1854 and he made the trip to California via the Isthmus. From that date until 1861 he followed mining, working placer claims. He worked quite extensively at Howland's Flats, Sierra County, California, and was also president and superintendent of the Orahm Hill Tunnel under High Mountain, three miles from Table Rock, on Cold Canon side of the mountain. When the Civil War broke out he joined Company F, 1st California Infantry, and was all through the fray. The regiment came down through Arizona and New Mexico, and while the detachment was camped at Maricopa, a party including Colonel Monihon came over to visit the Salt River Valley. It did not occur to them at that time that this valley could ever come to what it has, but after they visited the Rio Grande, they wondered why this valley could not be developed as well. Colonel Monihon commanded the detachment to fire a salute at Tucson, July 4, 1862, he being chief of the Howitzer detachment at the time. He left Tucson July 10, 1862, for the Rio Grande, and on the 14th of the same month they were attacked at Apache Pass by the noted Apache chief, Cochise, and his warriors, numbering between four and five hundred. There were sixty-four in the detachment when they advanced. The sick, wounded, guards of supplies and ammunition left but thirty-two in the engagement. They fought from mid-day until sundown without water, after making a forced march from Dragoon Springs, a distance of forty-five miles, leaving there the evening before at five o'clock. The Indians reported to the clerk of the Indian reservation a number of years afterward that they lost on that day seventy-seven warriors. Cochise was wounded in the first part of the fight. In the engagement two men were killed, both shot in the center of the forehead, and two wounded. Colonel Monihon was three times shot through the clothes; his face and clothing were full of lead from spattering on the gun. They were stationed at Messalia, New Mexico, two months, and then the company was

removed from there to Fort Craig, where they remained for one year, under command of Major Riggs, of the 1st California Infantry. While there Colonel Monihon was superintendent of breastworks under Captain Anderson, nephew of Captain Anderson, the hero of Fort Sumter. From there they were ordered to Fort Wingate, New Mexico, over what is known as the Whipple route. They were camped at Chino Valley for some time and afterwards established Fort Whipple, Colonel Monihon being made provo-sergeant of Whipple and Prescott, in which capacity he served until discharged. Since then he has been engaged in mining and the livery business. While in Prescott he carried the United States mail from Prescott to Bullybuena, and had many thrilling experiences with Indians, and while in and around Prescott he helped to bury forty-six men that were killed by them. When he became tired of mining he settled down in the Salt River Valley, where he arrived with six dollars, two pounds of tobacco and a gun. He put up the second house in Phoenix, and planted the first cottonwood tree. After earning some money he built a livery barn where the Monihon building now stands, and conducted the business for ten years. He then went East with his family and remained there six years. He built the Monihon block, the finest edifice in Arizona, in 1889. In 1874 Colonel Monihon became a member of the board of supervisors. In 1881 he was nominated for mayor but was defeated by seven votes, in a strong Democratic section. A year later he was a member of the common council and in 1889 he was made chairman of the Board of Directors of the Insane Asylum. In the year 1891 he was again put up for mayor but was defeated, but in a race for that office again in 1893 he was elected by a handsome majority. In May, 1896, he was again elected mayor and now holds that office. Colonel Monihon has served in all the prominent positions in the county and is a popular man with the masses. He is vice-president of the Trotting Association; has been starter and judge on the track in fifty races without a murmur, and takes a great deal of interest in racing. During his boyhood he often rode in races. Col. Monihon was married on the 15th of March, 1877, to Miss Josie C. Linville, a native of Santa Rosa, California. They have one daughter, Re-

becca Ann, named in honor of her grandmother. The colonel is a Mason, a member of the Blue Lodge, Chapter No. 2, at Phoenix, and has been high priest and grand scribe of the Grand Chapter; and grand marshal of the Grand Lodge three terms; also marshal of the Phoenix Lodge three terms. He also belongs to the Grand Army Post—J. W. Owens Post No. 5, and has been commander. He was a delegate to the national convention, Grand Encampment in 1889, at Boston and was post sergeant for two terms. The Colonel owns an interest in the Agua Fria Water and Land Company, and eighty acres one and a quarter miles from the city limits. While serving as mayor Col. Monihon, in his remarks at the completion of the Santa Fe, Prescott & Phoenix Railroad said: "We are here today to meet D. B. Robinson, vice-president of the Great A. T. and Santa Fe Railway system—Sir, it is my pleasant privilege and honor in behalf of the citizens of Phoenix to extend to you a most cordial greeting. Recognizing in you one of the original promoters of the Santa Fe, Prescott & Phoenix Railway, we cordially welcome you to our capital city, in this the sun-kissed land, which we hope soon to be able to call the State of Arizona. I now, in behalf of the citizens of Phoenix present you with this" (small gold key) "small token of their friendship and assure you that your name shall ever be dear to their hearts." On the completion of the road from the North to Phoenix he said: "Well has it been said that this is an age of progress. In 1854 when I first left my home in St. Lawrence County, New York, for the golden shores of California, there were no railroads west of the Missouri River. People who then desired to reach the city at the Golden Gate were obliged to suffer the hardships of a voyage from New York by the way of Panama, or go overland and subject themselves to the ravages of the Indians. I chose the former and until 1861 spent the time in California. Little did I think when I first spread my blankets on the dreary sands of this glorious valley in May, 1862, that within a quarter of a century there would be a city of 10,000 inhabitants holding a grand jubilee over the advent of its second railroad. When the Southern Pacific was completed to Maricopa in 1869 we then thought we had obtained something wonderful and when the Maricopa & Phoenix was completed in 1887 and

we were enabled to step onto the cars right here, we were amazed. But we are here today to welcome the completion of a road which gives us a through line to the city by the great lakes, the head of navigation of the great water way of the world. We welcome the iron horse to the land of sunshine, the home of the fig, the apricot, the orange, the pear, the peach and the pomegranate. In behalf of the citizens of Phoenix it is my privilege and honor to welcome all of you to this grand celebration given in honor of the completion of the North and South road. Friends of the Santa Fe, Prescott & Phoenix Railway, I welcome you. I congratulate the officers of this great enterprise on their success in pushing to completion a proposition of such magnitude as this, through all the fiery ordeals of the hard times under which the country has been suffering. Again in behalf of the city council and the good people of Phoenix I cordially welcome you."

DR. LOFUS HYATT GOODRICH. A more worthy and exemplary citizen never lived within the borders of the Territory of Arizona, and it is to such men as Dr. Lofus Hyatt Goodrich that the Territory owes its advancement and enlightened development. He came at that fortunate period when everything was in the formative state, and although his life has been an extremely active one, his success and prominence have been commensurate with his labors. He was born in the township of Nottawa, St. Joseph County, Michigan, March 28, 1843. When nine years of age his father died leaving a wife, daughter and three sons; Lofus being the eldest of the boys. The family having very limited means he was compelled to work on the farm in summer time, attending the district school winters.

When seventeen years old he entered the Academy near home and when nineteen began the study of dentistry, to which he seemed to have a natural aptitude. When twenty-two years of age he completed his course and began practicing at Sturgis, Michigan. Seven years later he went to Coldwater, Michigan, where he was in active practice of his profession until December, 1878, when he came to Arizona. Since that time he has given his attention strictly to his business and to the upbuilding and development

of this section. In 1878 he erected the first brick building on Washington street, opposite the city plaza, known as the Bank Exchange Hotel. He has had faith in Phoenix, and the future of Arizona from the first and no man, perhaps, has done more to forward her interests and promote her welfare than has Dr. Goodrich.

His largest interests are centered here and here he expects to pass the remainder of his days. He began buying property before he had been here a month. Dr. Goodrich has been a life-long Republican and was elected to the upper house of the 14th Legislature, being the first Republican ever elected in the county to the upper house. He was a delegate to the national convention that nominated Harrison the first time, and he has attended all national Republican conventions for the last twenty years. He has been president of the Arizona Dental Society since its organization, and has been an active member of the Phoenix Chamber of Commerce since its organization, being elected president in 1895. He has been a Knight Templar of the Masonic Fraternity for twenty-five years, and is a charter member of the El Zaraba Temple of the order of Mystic Shrine recently established in Phoenix. Dr. Goodrich was married in April, 1874, to Miss May A. Kidder, of Niagara Falls, New York, and they have two children: Roy Sela and Ada Belle, the former having finished his second year at Harvard University.

EDWARD IRVINE. It is indeed a rule with few exceptions that the prosperous and representative men of affairs of all large cities are rarely natives of the same. It is likewise a notable fact that vast numbers of the successful men who do business in this country are foreigners by nativity. This thought is brought about by the personality of Edward Irvine, a native of County Tyrone, Ireland, born in the year 1838. He is now a prominent capitalist and real estate man of Phoenix, Arizona, and one of the old time citizens. His parents, Alexander and Jane (Johnson) Irvine, were married in Ireland and left that country for America in about 1842. They settled on St. John's River in the province of New Brunswick, and there passed the remainder of their lives. The father followed various occupations, farmer, merchant, etc., and was reasonably successful. Several children were born to this wor-

thy couple but only one besides our subject is now living, Mrs. Sarah Beckim, of Bloomfield, New Brunswick. Edward Irvine was reared in New Brunswick and secured a thorough scholastic training in the common schools and in the seminary, graduating from the latter. Following this he taught school and also speculated on a small scale, making some money. He subsequently went to Aroostook County, Maine, where he kept books for a leather and shoe establishment for a few years, and then, in 1868, took the advice of Horace Greeley and went West. Reaching California he stopped at numerous points, teaching a part of the time, and in 1871, went to Phoenix, Arizona, when there were about seventy-five men and one woman, a Mrs. Gardner, in the town. Having studied law in the East he was admitted to the bar at San Diego, Cal., before Judge Bush, and after locating in Phoenix, hung out his shingle. For a number of years he practiced in Phoenix and then engaged in general merchandising, in which he was successful and which he carried on for a number of years. He had one of the first stores in the place. Mr. Irvine has been engaged in loaning money and in the real estate business for the past few years and he now owns considerable property in and around the city. He has a beautiful residence in Phoenix and owns four fine farms. He has been successful from a pecuniary standpoint, in the conduct of his affairs, and is a liberal, generous and highminded gentleman, whose correct mode of living has gathered about him a large circle of friends and well wishers. He had but little capital when he started in business in Phoenix but his perseverance and determination have carried him along and he is now one of the wealthy men of the Territory. For two or three terms he was justice of the peace and he was one of the commissioners of the Insane Asylum. Mr. Irvine has never taken an active part in politics but has attended strictly to business and this, in all probability, accounts in a great measure for his success. In the year 1859 he was married to Miss Deborah Rideout, a native of New Brunswick, and three children were born to them. Two died in infancy and the other, Joseph Alexander, is a member of Irvine Company Book Store. Mrs. Irvine died in 1863 and in 1880 Mr. Irvine was married to Miss Izora E. Jackson, by whom

he has eight children: Izora J.; Eddie; James; Malay; Vera; Roy; Evangeline and Sylvan. Mr. Irvine is a prominent Mason, being a Knight Templar, and is also a member of the order of Eastern Star. Politically he is a Democrat.

FRANK B. MOSS. Among the worthy residents of Phoenix, Arizona Territory, it is but just to say that Mr. Moss occupies a conspicuous and honorable place, for he has always been industrious and enterprising, and as a result has met with well merited success. He is a member of the Phoenix council and a blacksmith who thoroughly understands his calling. Mr. Moss was born in Kenosha County, Wisconsin, September 15, 1852, to the marriage of Francis Moss and Carrie Smith, both natives of Germany. The parents came to this country when young, were married here, and the father followed the trade of blacksmith in Wheatland, Wisconsin, until his death in December, 1895. He held the position of Supervisor for a number of years. Mrs. Moss is still living and makes her home in Wheatland. Frank B. Moss grew to manhood in the last named city, secured a thorough education in the public schools, and when about sixteen years old began learning the blacksmith trade. He began as an apprentice in Kenosha, with Head & Sutherland, and was thus occupied for a few years, after which he went to Virginia City, Nevada, where he worked at his trade and ran a wood yard for a number of years. In 1878 he came to Tombstone, Arizona, where, in connection with his trade, he drove a team for some time. The country was very wild at that time, Indians were numerous and hostile, and although he was shot at twice by the savages he escaped uninjured. He traveled for the most part by night to escape them. Later he went to Harshaw, Pima County, Arizona, and opened a blacksmith shop which he ran until 1880, when he located at Phoenix. There he followed his trade for some time. In 1885 he embarked in business on his own account and has carried it on very successfully up to the present. He is one of the representative men of the city and may be counted a pioneer. Mr. Moss owns considerable real estate in Phoenix as well as a nice home, and is quite deeply interested in gold mining. He also owns 160 acres of ranch land on the Gila river, with its water rights. In the month of

May, 1894, he was elected to the city council and he has held other responsible positions, being chief of the fire department in 1892. He takes a deep interest in all that pertains to the welfare of his section and is a most valuable citizen. Socially he is a member of the I. O. O. F., the A. O. U. W. and Woodmen of the World. On the 30th of May, 1885, he was married to Miss Ida M. Harriman, a native of Wisconsin, and they have three interesting children: Edmund Earl, Ralph and Ernest, the last two twins.

HON. HENRY E. KEMP. If the history of bicycling were to be written, it would be found that no form of recreation or invention has taken such a hold on the public. A mighty industry has sprung up in the manufacture of these machines and the most perfect of them are handled in great numbers by the hardware firm of Henry E. Kemp Company, of Phoenix, Arizona. Mr. Kemp also deals very extensively in agricultural implements, wagons, buggies, etc., and is one of the representative business men of the city. Mr. Kemp is a product of Bristol, Kenosha County, Wisconsin, born November 30, 1861; son of William and Frances (Wilbur) Kemp, both natives of New York State. William Kemp moved to Wisconsin at an early date and for many years of his life was engaged in farming. For a time, however, he was in the wholesale paper business in Chicago. At the present time he resides in Phoenix, Arizona. In the public schools of his native town Henry E. Kemp received a good practical education and afterward he engaged in the lumber business in the employ of L. Grant & Son, of Kenosha, remaining with this firm for seven years. There he laid the foundation for his subsequent prosperous business career. In 1885 he came to Phoenix, Arizona, and opened a hardware and agricultural implement house under the firm name of Henry E. Kemp & Company, which continued until 1895. Then the business was incorporated under the name of Henry E. Kemp Company. The company carries a large stock of hardware, agricultural implements, wagons, buggies, bicycles, etc., and by honorable and equitable methods are reaping a well merited reward. Mr. Kemp was made president of the company. He was the first president of the Chamber of Commerce of Phoenix and held the position three terms. Mr. Kemp was

also a member of the Territorial Council, 18th Legislature. He is president of the East Riverside Canal Company of Gila Bend, also president of Gila Bend Hardware & Lumber Company, and owns some large mining interests. He owns an interest in the "Fortune" gold mine, and the "Union" mine, both of which are profitable working mines. For some time he has been local director of the Maricopa and Phoenix Railroad and takes a deep interest in all that tends toward the development of the country. Socially he is a member of the Knights of Pythias Lodge of Phoenix. In the year 1886 he was married to Miss Margaret S. Williams, a native of Wisconsin, and the fruits of this union have been four children: Walden L., Hazel E. and Mildred E., and Margaret S., who died.

CHARLES F. AINSWORTH. The bar of Phoenix, Arizona, has won an enviable reputation all over the country for the erudition, success and courtesy of its members, many of whom have achieved a national reputation for their ability and a correct apprehension of what pertains to the profession. Among those who stand deservedly high as members of this bar with his brother lawyers and with the courts, is Charles F. Ainsworth. He was born in Lisbon, St. Lawrence County, New York, January 3, 1853, and is descended from prominent English stock. In tracing the genealogy of this family we find that the first member to settle in the United States was Edward Ainsworth, who left Lancaster, England, in 1652, and settled in Roxbury, Mass., where his descendants lived for many years. Later certain members moved to different localities as did the father of our subject. The latter grew to sturdy manhood on a farm in York State and received his primary education in the common schools. In the fall of 1870 he entered St. Lawrence University at Canton, and was graduated in the scientific course in June of 1874. During this time he taught school in the winter seasons and worked on a farm during his summer vacations graduating with his class, however, in 1874. In the fall and winter of 1874-75 he took a principalship in the Ogdensburg Institute and read medicine under Dr. C. C. Bartholomew while thus engaged. In the spring of 1875 he went to Wisconsin and entered the law school of the University of Wisconsin, at Madison, and

graduated in June, 1876. The following July he began practicing law at Black River Falls, Jackson County, Wisconsin, and continued there from that time until November, 1888. For ten years he was district attorney of that county, being elected five times on the Republican ticket. Mr. Ainsworth came to Phoenix, Arizona, in 1888, and here he has made his home since. He has never been associated with any one in his profession, preferring to be alone, and makes a specialty of corporation law. He is attorney for many of the principal corporations of the Salt River Valley, viz.: The Valley Bank of Phoenix, Arizona Improvement Company, Arizona Canal Company, Maricopa Canal Company, Grand Canal Company, Salt River Valley Canal Company, The Highland Land & Water Company, the Valley Canal & Land Company, Phoenix City Railroad Company, Phoenix Light and Fuel Company, Phoenix Water Company, of which he is president. He is attorney for the Casa Grand Canal Company at Florence, and for The Phoenix Consolidated Gold Mining Company. Mr. Ainsworth selected his wife in the person of Miss Minnie A. Southworth, of Canton, New York, whose ancestors came over in the Mayflower, and their union was celebrated July 12, 1875. Four children have been given them, as follows: Frank, born November 25, 1877; Sylvia, born September 10, 1880; Arthur Mark, born February 14, 1883, and Ruth, born August 30, 1887. He is a prominent Mason, being a member of the Commandery, Shrine and Scottish Rite.

CHIEF JUSTICE A. C. BAKER was born in Russell County, Alabama, about the year 1847, his father, Hon. Benjamin H. Baker, being one of the best known and most influential men in that State from 1847 to 1861. From 1847 to 1849 Benjamin H. Baker served as a member of the House of Representatives, and from 1851 to 1855 was a member of the State Senate. A lawyer of profound learning and marked ability he ranked among the best, and enjoyed a large and lucrative practice. The stormy times of 1861 coming on, and Mr. Baker being a decided Whig, he opposed the movement for secession, as he deemed it unwise. In the debates which took place in all the principal cities of Alabama just prior to the convention which passed the ordi-

nance of secession, he was pitted against the eloquent and fiery champion of that measure, the Hon. William L. Yancy. Every old citizen of Alabama will remember these discussions. Despite the pronounced opposition of Mr. Baker to the proposed dissolution of the old Government, he was chosen as a member of the convention and upon the floor of that body renewed his opposition to the measure. He boldly proclaimed his convictions and declared that secession would be "the most stupendous act of folly the world ever saw." His speeches in that body now read as if he was endowed with the spirit of prophecy; but no human agency could turn that tide. The whole sentiment was for a dissolution of the Union. In that dread moment the only alternative left him and the comparatively small number entertaining similar views, was either to abandon the associations of a lifetime or to go down with them. He reluctantly voted for the ordinance, but in a speech delivered from the steps of the capitol building in Montgomery during the session declared: "I voted for the ordinance not because I favored secession per se, but when I saw from the conduct of others, that a dissolution of the old Government was inevitable, and that those who adhered to that view were greatly, in the majority, I felt it to be my duty to rise above party considerations and to subvert my personal views to the will of the masses and so accept, as a last resort, the mode of redress presented by others. I have the consciousness that no act or speech of mine in the past has tended to bring about a resort to secession, but my people having firmly decided upon that course, their fate is my fate and their God is my God." He subsequently entered the Confederate service as lieutenant colonel of the Sixth Alabama Regiment, but being of a weakly and frail constitution, which unfitted him for the exposures and hardships of camp life, he soon sickened, and fell a victim to his devotion to the Southern cause.

Chief Justice Baker also served in the war, enlisted as color-bearer in Waddell's Battalion of Artillery, Confederate Army, when yet scarcely sixteen years of age.

After the war Judge A. C. Baker, then a very young man, in fact a boy, believing that the prospects of future success in life were better in the North and Northwest, went to Missouri. Fi-

nally the golden shores of the Pacific coast allured him thither and he emigrated to Southern California where, for several years, he was engaged in the practice of law in San Diego and Los Angeles. In 1879 he came to Arizona and settled in Phoenix, then but a small frontier village. He rapidly forged ahead and soon became one of the best known lawyers in the Territory. Possessed of a ready and quick mind, he adapted himself to the conditions always found in a frontier country and became popular with the hardy frontiersmen. Being a staunch Democrat, he set about assisting to organize that party in the Territory, and was largely instrumental in causing the first Territorial Democratic Convention to be assembled in Phoenix in 1880, of which he was a member. In the fall of that year he was elected to the Eleventh Territorial Legislature from Maricopa County, and served as a member of the council in the session of 1880 and 1881, as chairman of the Judiciary Committee.

During the session of that Legislature he secured, among other important laws, the passage of the bill incorporating the present city of Phoenix. In 1882 he was elected to the office of district attorney for Maricopa County and discharged the duties of the office with great credit. His ability as a lawyer became well established during the term he filled this office. In the same year he was appointed assistant United States attorney for the Territory, continuing as such for two years; and from 1884 to 1888 he was city attorney for the City of Phoenix.

He became a candidate for delegate to Congress before the Territorial Democratic Convention in 1886, but was defeated for the nomination by Hon. M. A. Smith. Judge Baker then devoted all of his energies to the practice of law, his chosen profession, and very soon built up one of the most extensive practices in the Territory, being employed in nearly every important trial in the Territory. It is well known that prior to the National Democratic Convention of 1892, held in Chicago, none of the Territories were allowed a greater representation than two members or seats. Arizona had been as it is now, striving for admission into the Union of States, and as it deemed that to gain an equal footing with the new states of Montana, Idaho, Wyoming and the Dakotas in that convention would greatly aid Arizona's admission into the

Union, Judge Baker was sent as one of six provisional delegates to the convention by the Democratic party and requested to press the claims of the Territory in that respect. He appeared before the Committee of Credentials, was accorded a respectful hearing and carried the point after a spirited debate in which the judge proved himself more than able to represent his constituents.

In May, 1893, he was appointed Chief Justice of the Supreme Court of the Territory, by President Cleveland, which high office he now holds. In this position Judge Baker has won the highest praise. He took his seat upon the bench when the calendar of the court was crowded with cases of long standing. The delays of disposing of the business of the court, and the enormous expense accruing to litigants had grown to be intolerable. Judge Baker applied himself to remedying these evils and in an incredibly short space of time the docket of his court was cleared of all old cases and ever since the administration of justice in his jurisdiction has been speedy and comparatively inexpensive. The ability of Judge Baker as a lawyer is conceded by all. His opinions are short, concise and always to the exact point. His attachment to the right, as he apprehends it, is so true, and his consequent hatred of the wrong, so intense, that he is sometimes in danger of going too directly to his purpose and treating with too much contempt the mere forms of practice. He is leaving his impress upon the jurisprudence of the Territory in a clear, upright and forcible manner.

GEORGE M. SARGENT. The old saw has it that "A rolling stone gathers no moss," and while this may be true as a general thing, there are exceptions to this rule. Circumstances may be such that a man will be compelled to follow various occupations, especially at the commencement of his independent career, but it does not follow that he is lacking in perseverance, energy, or intelligence. The career of George M. Sargent has been a checkered one, but has not been without substantial evidences of success, and it is owing to his own energy, push and determination that he is now floating on a prosperous financial sea. He was born in New Hampshire, November 23, 1858, to George G. and Araminta (Clement) Sargent, who were born in Goffstown and Hudson, New Hampshire, respectively, of Scotch-Irish de-

scent. George G. Sargent is a painter by trade, but for a number of years past has owned and operated a grist and saw mill, and is in comfortable circumstances. His family consists of four children, George M., Stella, David C. and Dora, the eldest of whom is the subject of this sketch. He was reared in the Buckeye State and in New Hampshire, and up to the age of sixteen years was an attendant of the public schools, where he acquired a practical education, but at that age he left the shelter of the parental roof to fight the battle of life for himself, and for two years thereafter found employment on different farms in New Hampshire, receiving for his services from ten to twelve dollars per month. At the end of this time he came West alone, and after working on a farm and teaching school in Labette County, Kansas, for about nine months, he went to Atchison, Atchison County, Kansas, where he became a book agent. Nearly one year later he gave his employer his note for \$90, from which it may be judged that that occupation was not in his line, and at once set about securing other employment with which to liquidate his indebtedness. Nothing was too menial, provided it was honest, for him to engage in, and that winter he shoveled snow from sidewalks, put coal in basements and cellars, sawed cord-wood, in fact, he did anything he could get to do in order to turn an honest penny. In the spring he found employment in delivering groceries, and was thus occupied until August, 1879, when he turned his attention to railroading. He was first employed in trucking freight for the Hannibal & St. Joe Railroad at East Atchison, Mo., and successively filled the positions of truckman, check clerk and expense bill clerk under C. F. Barron, general agent, until July, 1880. He then became car clerk for the same road, with headquarters at St. Joseph, under E. G. Fish, and filled this and the position of bill clerk for two years, being also a general utility man. In this manner he acquired a practical insight into railroading, and laid the foundations of his future success as a railroad man. After remaining in St. Joseph for nearly two years, he became freight earnings clerk under G. W. Miller, freight auditor, and C. M. Carter, auditor in the general offices of the Kansas City, St. Joseph & Council Bluffs Railroad, and this position filled with ability for about eighteen

months. It was while thus employed that he formed the acquaintance of R. E. Wells, now assistant general manager of the Santa Fe, Prescott & Phoenix Railroad, who was then in the passenger auditor's office of the same company for which Mr. Sargent worked. The following eighteen months he spent in the Francis Street depot, St. Joseph, as assistant ticket agent, but on the 1st of October, 1886, he gave up this position to accept that of soliciting agent with the Burlington Railroad Company at Kansas City under R. M. Rogers, Jr., general agent. July 13, 1887, he transferred his allegiance to the Atchison, Topeka & Santa Fe Railroad Company, assuming the same position that he had held with the Burlington Railroad Company, Mr. E. C. Gay being assistant general freight agent of the Santa Fe Company when the change was made. Subsequently Mr. Gay was transferred to Chicago and A. P. Tanner succeeded, and on the 21st of October, 1889, Mr. Sargent was placed in charge as commercial agent in Mr. Tanner's place, he having been transferred to Topeka. The duties of this position Mr. Sargent filled with marked ability until October 1, 1895, since which time he has held his present position at Phoenix. While in Kansas City Mr. Sargent was one of the fifteen directors of the Kansas City Commercial Club, a position which cannot be bought, and was the only man on a salary who ever held that honorable position in that directory. Mr. Sargent has a record as a railroad man of which he has every reason to be proud, for notwithstanding adverse circumstances, he surmounted all obstacles that came in his way, and rose step by step until he has reached his present position of general freight and passenger agent of the Santa Fe, Prescott & Phoenix Railroad. He is in every sense of that oft-abused term—a self-made man—and every round on the ladder up which he has been climbing has been surmounted by his own unaided efforts. Mr. Sargent was married November 2, 1885, to Miss Ada Blackwell, of St. Joseph, Mo., and their union has resulted in the birth of three children, George Ledwidge, born March 13, 1887; Araminta Merrill, born March 12, 1889, and Henry Hutchings, born September 8, 1893, all natives of Missouri. Mr. Sargent is a member of the National Union and is a Republican politically.

DR. JAMES M'NAUGHTON. The public interest which centers about the institutions of a commonwealth lends itself in a greater or less degree to those who conduct them. Whence came they? How prepared for their duties? What have they done? Such are the pertinent questions that the public wisely ask, and should have opportunity to know.

Dr. James McNaughton, the president of the Arizona Territorial Normal School at Tempe, is a native of the State of New York, having been born near the famous Chautauqua Lake. His mother was born of Scottish parents in the State of New York. His father emigrated to this country from Dumbartonshire, Scotland.

Dr. McNaughton's rudimentary education was acquired at the district school. At an early age he was sent to Ellington Academy, where he graduated at sixteen, having served as assistant teacher in that institution a portion of the time. The seven years following were spent in teaching, in studying law, and in pursuing college studies, at the end of which time he graduated from the classical course of Alleghany College. The succeeding year was spent at Michigan University in the pursuit of mathematical and scientific studies. Among his instructors were the celebrated Bishop Kingsley, Dr. Alexander Martin and DeVolson Wood. On his return from the university he was elected School Commissioner of Chautauqua County, New York, which office he resigned during his second term to accept a position as superintendent of city schools. His duties as School Commissioner and his study of pedagogics during that period, under the able tutorage of Dr. Armstrong, prepared him eminently for his chosen work. He rose by successive steps to more responsible positions in city school management until he resigned the superintendency of the schools of Council Bluffs, Ia., after an administration of more than seven years, to organize and conduct the State Normal School at Mayville, North Dakota. This position he held until the financial condition of the State bankrupted the normal school.

The honorary degree of Master of Arts was conferred upon him by Alleghany College a few years after his graduation; later, he pursued a course of study leading to that degree, laid out by the Illinois Wesleyan University, and received

the degree from that institution upon examination. The degree of Doctor of Philosophy was conferred upon him by Alleghany College, after his having pursued the required three years' course and passing the necessary examinations.

In all school questions, he has ever taken a lively interest. He was a pioneer in the semester plan of dividing the school year, a plan now universally adopted in the leading city schools. The main principles of the New Education were applied in the various departments of the schools under his supervision, long before they were announced as such from the Quincy schools, and the recommendations of the committee of ten closely coincided with the system of work that had been in force in his schools for more than ten years.

He is a man devoted to his profession; aggressive, and yet conservative enough to shun most of the educational follies. In the Arizona Territorial Normal School he is conscious of great possibilities for the elevation of Arizona, and diligently labors to that end.

HON. J. C. MARTIN. A close observer, in studying the history of the advancement and development of Yavapai County, Arizona, will find golden threads running through the web and woof of events in the last twelve or fourteen years. These are indications of the lives of those men whose public spirit and energy have made her first among the cities of the West, and have given her a conspicuous place with any city of the United States. A true representative of such men is found in one whose career inspires this brief notice. J. C. Martin was born March 9, 1846, in Westmoreland County, Penn., and received a thorough education in that State, later attending Monmouth College, at Monmouth, Ill. Out of a class of twenty-five students in the latter institution, Mr. Martin and twelve others followed journalism. Mr. Martin first branched out in that line of business in Washington County, Kan., where he became proprietor of the Washington Republican in 1870. In September, 1874, he came West to California, and started the paper, "Gilroy Leader," at Gilroy, Cal., which he conducted until September, 1876. On the 31st of December, 1875, he was married, and in the autumn of 1876 moved to San Francisco, where he was employed on one of the daily papers. In November, 1882,

he came to Prescott, Arizona, purchased the Arizona "Journal," and in 1885 purchased the "Arizona Miner," the oldest paper in the Territory, and consolidated the two. On February 22, 1890, he was appointed by President Harrison Register of the United States Land Office at Prescott, and held that position within two months of the full term of four years, President Cleveland appointing his successor in December, 1893. In November, 1894, Mr. Martin was elected a member of the Eighteenth Legislative Session, and received the highest vote of any candidate on either side for the position. While a member of the House he introduced and secured the passage of a mining law, requiring locators of mines to do a certain amount of work before recording notice of location, a measure which has been of great benefit to the mining interests of the Territory by breaking up the pernicious system in vogue in many places of prospectors locating, holding and re-locating claims year after year without doing any development work on them.

HON. MORRIS GOLDWATER. Exchange and barter are two of the world's most important factors, and without these the public would indeed find themselves in a sorry plight. The calling of the merchant is one of the oldest, as well as one of the most honorable of all lines of industry, and the unusual success attained in it by him whose name heads this sketch, is the result of persevering and well-directed effort. He has had a purpose in life, and has worked with all his will for its attainment, the result being a high degree of success. Mr. Goldwater is the present Mayor of the city of Prescott, and was born in London, England, in January, 1852, a son of Michael and Sarah (Nathan) Goldwater, who were also natives of that city. In 1852 the father immigrated with his family to the New World, and for a time resided in San Francisco, Cal., but in 1858 took up his residence in Los Angeles. In 1860 he came to Arizona Territory, and afterward laid out the town of Ehrenberg, where he embarked in the mercantile business and in government contracting, which occupations he followed up to the building of the railroads. In 1870 he opened a mercantile establishment in Phoenix, and carried on business successfully at both places until 1874, and in 1876 took up his

residence in Prescott. Here he also established himself in business, but in 1883 retired from the active duties of life and removed to San Francisco, where his home has since been. His career as a business man was above reproach, and he was active, practical, and far-seeing, and with these qualities could hardly fail of success. He was one of the pioneers of Arizona Territory, and when he first located here the country was in a perfectly wild state, and Indians were numerous and hostile. He, with other whites, had several encounters with them that were of quite a serious nature, in fact, he experienced many of the hardships and dangers that fall to the lot of the pioneer, but at all times he acquitted himself creditably. At that time his goods were freighted by mule teams all over the Territory, and mail was received once a week. He and his wife became the parents of eight children: Morris, Mrs. P. N. Aronson, of San Francisco; Samuel, of California; Henry, of Prescott; Mrs. Prader, of Portland, Oregon; Lizzie, Benjamin, and Baron. Morris Goldwater, the subject of this sketch, was educated in the public schools of Los Angeles, and the year 1867 first found him in Arizona Territory. Here he remained but one year, when he returned to California, and up to 1871 was a clerk in a wholesale hat store of San Francisco. From that time until 1874, he was in business with his father in Phoenix, Arizona Territory, then followed other occupations on the Colorado River for two years. In 1876 he came to Prescott, and here has been successfully engaged in the mercantile business ever since. The firm is known as M. Goldwater & Bros., the other members of which are Henry and Baron Goldwater. These gentlemen have one of the largest general stores in Prescott, carry the finest and freshest stock of goods in the Territory, and do an enormous business. Their goods are all purchased in the New York market, and selected with care. The name of Goldwater is well known throughout Arizona Territory, and theirs is the oldest mercantile house within its borders. In 1878 Morris Goldwater was elected on the Democratic ticket as Mayor of Prescott, after which he served four years as a member of the city council, and in 1883 represented his county in the Twelfth Legislative Assembly of the Territory. He was Chief Clerk of the House in the Thirteenth General Assembly, and was a member

of the County Board of School Examiners for six years, and was chairman of the Territorial Democratic Central Committee during 1888 and 1889. He was also a member of the Board of Supervisors of Yavapai County during the two last mentioned years, and in 1894 was appointed a member of the Territorial Board of Equalization, a position he is still filling. In 1895 he was elected to the office of Mayor of Prescott, and in the discharge of his official duties has displayed marked ability and the deepest interest in the city's welfare. Mr. Goldwater is one of the prominent figures of the Territory, and for many years has been identified with its political history. He is vice-president of the Prescott National Bank, and socially is a member of the Masonic fraternity, in which he has attained to the 32d degree, belongs to the Mystic Shrine, and is Past Grand Master of the Territory. He also belongs to the K. of P. and the I. O. O. F. Mr. Goldwater is unmarried and is a Jew.

HON. E. W. WELLS. He whose name heads this sketch is regarded as one of the leading lawyers and capitalists of Arizona Territory, commands the respect of all who know him and is a living refutation of the popular idea that "there is no honest lawyer." His attention has not been given wholly to his profession, however, for he is the capable vice-president of the Bank of Arizona at Prescott. Mr. Wells is a product of Lancaster, Ohio, where he was born February 14, 1846, a son of E. W. and Mary L. (Arnold) Wells, who were also natives of the Buckeye State, the former of whom was a merchant the greater part of his life. In the public schools of his native place the subject of this sketch acquired a practical education, but at the early age of sixteen years he began depending on his own resources for a livelihood, left the shelter of the parental roof and went to Colorado, where he was engaged in mining and other employment for two years. In 1864 he came to Arizona and located in Prescott, where he followed various occupations, such as mining, ranching, stock raising, etc. For a number of years his earnings were largely invested in mining interests. The population of Prescott at that time numbered a few hundred and the country surrounding it was very wild and rough, inhabited by hostile Indians, who very often com-

mitted serious depredations, himself suffering losses, etc., at their hands, but Mr. Wells stayed on, made the most of the many opportunities that came in his way, and eventually success crowned his efforts. He has been engaged in mining more or less continuously since he came to the place and shortly after locating here began the study of law under the instruction of Chief Justice William F. Turner, and in 1875 was admitted to the bar. In 1867 he was appointed clerk of the District Court and held the same until his admission to the bar, and during the same time held the office of county recorder for several years. In 1875 he was elected district attorney of Yavapai County, in which capacity he served one term and a portion of another term, when he resigned, having received the appointment of United States Assistant District Attorney for the Third District of Arizona. The duties of this office he discharged with fidelity and intelligence for two years, when he resigned, but continued the practice of his profession, for which he seems to have a natural adaptability, for in his practice he has shown a high degree of learning and proficiency. His reputation and record are first-class for integrity and trustworthiness in all matters entrusted to him, he is careful and painstaking in all pleadings and court proceedings, and for clearness and accuracy of all legal instruments drawn by him ranks high in his profession. He served with distinction for two terms as councilman in the Legislature of Arizona and in 1887 was appointed one of three commissioners by the Governor to revise the statutes of the territory, Mr. Wells being the only Republican on the committee and receiving his appointment from a Democratic Governor. The work was brought to a very satisfactory conclusion and received general praise from the public. For thirteen years he was professionally associated with Hon. John A. Rush and for some time was also associated with Chief Justice Sumner Howard on his retiring from the Supreme Bench of the Territory, with whom he became well known. Mr. Wells retired from the practice of law in 1883, but in 1889 was appointed United States District Judge, receiving his commission from President Harrison, and during the two years that he served in this capacity he showed the utmost impartiality and his decisions were always considered just.

While wearing the judicial robe he made a fine record and won many friends, but in 1891 he resigned his judgeship on account of his pressing private business, to which his entire attention has since been given. In 1883 he was made vice-president of the Bank of Arizona, a position he has since held. He is interested in various mining companies and also owns considerable real estate and property throughout the Territory. He is an exemplary citizen, public-spirited and ever alive to progress, and labors unceasingly for Arizona's welfare. He is a thirty-second degree Mason, and a member of the Mystic Shrine. Mr. Wells was married in 1869 to Miss Rosa G. Banghart, a native of London, Canada, and this marriage has resulted in the birth of five children, two sons and three daughters.

HON. ROBERT EMMETT MORRISON. Nothing is truer than the broad statement that in this country alone of all the great countries a man's family connections do not assist him to places of trust and honor, either professionally or in the political arena, but he must win his way by his own exertions or by his own honest merit. In the old country the accident of birth determines the preferment of an individual, and if he is not born to a title, or is not the near relative of one who is, his chances are few and far between to ever attain a position of prominence. This government of the people is no discriminator of persons, but opens its doors wide for the entrance of all such as possess the requisite qualifications, and birth is by no means one of these. Hon. Robert E. Morrison, however, comes of an excellent family, and is a product of the city of Chicago, Ill., where he first saw the light July 13, 1856. His father, A. L. Morrison, was a police magistrate on the west side in that city for some time after the fire of 1872, but during the reign of President Arthur he received the appointment of United States Marshal for New Mexico, and took up his residence at Santa Fe, where he still resides. For a number of years past he has devoted his attention to the practice of law, and here as well as in Chicago he has won an enviable reputation as a shrewd and discriminating lawyer and a man of more than ordinary intellectual force. During the administration of President Benjamin Harrison he held the position of Registrar of Land Office for New Mexico. Hon. Rob-

ert Emmett Morrison received the advantages of the city schools of Chicago, and after finishing the high school course entered Union College of Law, from which he was graduated in the class of 1877, after which he at once began the practice of his profession in his native city, where he continued until 1883. In that year he came West on a vacation and while in Arizona became infatuated with the climate and the country in general and here decided to locate. His first three years here were spent on a ranch in Apache County, but at the end of that time he was made a member of the grand jury, and while serving in this capacity soon became recognized as an able lawyer, and this opinion was universally accepted when he succeeded in breaking up a ring that had been formed for raising and forging county warrants. His conduct during this time met with such universal approval that in the fall of 1886 he was elected county judge of Apache County and held the office until the spring of 1887, when the office was done away with. While serving on the bench he impaneled the first grand jury that had met in two years, and succeeded in indicting the above mentioned law breakers, and after the office was abolished the District Court took up the indictments and convicted and banished the offenders. Later Judge Morrison was appointed probate judge and ex-officio county superintendent of schools, which offices he ably filled until January 1, 1889. He then resumed the practice of his profession in St. Johns, and in the fall of 1891 came to Prescott, and here has built up a practice of which he has every reason to be proud. In the fall of the following year he was elected district attorney of Yavapai County, was re-elected in the fall of 1894 and is still holding the position. He has ever been a strong Republican politically, and being an excellent orator has stumped the territory in the interests of his party on various occasions. In November, 1890, he led to the marriage altar Mrs. Johnnia M. Logan, a native of Topeka, Kan., by whom he has three promising children: Robert, Emmett and Erin Mary. He and his wife are members of the Catholic church.

HON. ANDREW J. DORAN. One of the men who have controlled circumstances in life and commanded success is Andrew J. Doran, who represents all that is vigorous and substan-

tial in our American institutions, and is deserving of all praise. He is a representative son of Ohio, born in New Philadelphia, Tuscarawas County, July 11, 1840, and the son of George and Jane (Cribbs) Doran, the former of German and Irish and the latter of German stock. Grandfather Thomas Doran was born in the North of Ireland. At an early date he came to America, first settled in New Jersey, but afterward moved to Pennsylvania, settling in Westmoreland County. From there he subsequently moved to Ohio. The grandfather on the mother's side, Major John Cribbs, was an officer in the Revolutionary War. When our subject was but four years old he was left motherless and he was taken by his paternal grandparents and made his home with them in Cooper County, near Boonville, Missouri. Until seven years old he was on a farm in that county; then his grandparents moved to Iowa, locating near Mt. Pleasant, on a farm, in 1847. Three years later they moved to Des Moines, of that State. About 1855 our subject's father moved to Iowa and settled near Boonsboro, where Andrew joined him. The latter remained with his father until 1860 and in the meantime learned the millwright and bridge builder's trade. He attended the Wesleyan University at Mt. Pleasant and secured a good practical education. In the year 1860 he went to Pike's Peak during the excitement there, and engaged in mining. During the summer and fall of the following year he crossed the plains to California, via Salt Lake City, with two young men, and reached Marysville, Cal., at the time of the war excitement. There he enlisted in Company E, Fifth California Volunteer Infantry, and soon after started to Texas, via Los Angeles, Cal., and Arizona to El Paso. For the most part he was on frontier service and engaged in fighting Indians. He was discharged at Lammesella, N. M., and then returned to California by the same route. From there he went to Oregon and engaged in mining in the John Day country for over a year. Returning to California he followed merchandising for a while, also engaging in the lumber business in Butte County. During the building of the Southern Pacific he was with the construction forces and was present when the last spike was driven. Later he went to Inyo County, California, and followed mining until 1876, when he came to Arizona. He first located at Silver King,

in Pinal County, and worked at mining and mill building. He constructed the Silver King works and was superintendent of the mines. In 1881 he was elected to the Eleventh Legislature. Still later he was made superintendent of the Pinal Consolidated Company's works, held that position about a year, and during that time was elected sheriff of Pinal County, serving one term. In 1886 he was again elected to the Fourteenth Legislature, thus showing his popularity. Afterward he again engaged in mining with the Reymerk Mining Company; constructed the works and was superintendent, and in 1889 was elected to the council of the Sixteenth Legislature, and was re-elected to the same position in the Seventeenth. He was councilman at large during the Eighteenth Legislature and was made the president of the council by unanimous consent. Since then Mr. Doran has resided in Prescott, and has been associated with ex-Governor Powers in business. Socially Mr. Doran is a Mason. He belongs to Gila Valley Blue Lodge No. 9, at Florence; to the Chapter at Phoenix, also the Commandery at Phoenix and Malacca Temple at Los Angeles. He is also a member of Pinal Lodge No. 4, Independent Order Odd Fellows. Mr. Doran's life has been an adventurous one and he has met with more interesting incidents than usually fall to the lot of man. Politically he is a Republican.

FRANK M. CZARNOWSKI. The real estate and mining interests of Phoenix, Arizona, have attained to proportions of the greatest magnitude, and in conjunction with other commercial pursuits maintain paramount importance in the community. Among the pioneer and representative real estate men and mining brokers of this flourishing city is Frank M. Czarnowski, a native of Poland, born April 28, 1849. The family came to the United States when our subject was six years old and as a result nearly all his recollections are of this country. His parents, Jacob and Julia (Gable) Czarnowski, were natives of Poland and Prussia respectively. After coming to the United States the parents located in Rochester, N. Y., where our subject remained until 1868 attending the public schools and Bryant & Stratton Business College. He had learned the nursery business in Rochester and in 1868 went to St. Louis, Mo., and took charge of the nursery

business for Bayless & Brother, as superintendent, remaining with them a year. He was then seized with the frontier fever and on the 16th day of March, 1869, took passage on a vessel for Omaha with the intention of crossing the plains from that point. He found no opportunity, however, and returned to Fort Leavenworth. From there he went to Texas and from there to Fort Lyons, where he found a government wagon train ready to cross the plains. He was employed as secretary by the commander of the train, and they made the journey across the plains in thirty days. Our subject found employment in mining and was engaged in working at this for about a month, when a man by the name of Picket came in and wanted 100 men to go with him to Arizona, where he had discovered placer and quartz diggings. Thirty-seven men were soon ready to go, and as Mr. Czarnowski had a friend living at Fort Union, he went there, but subsequently joined the train. They first stopped at Hulbert's Ranch—west of Silver City, N. M.—and there our subject first saw the work of the red man—the killing of Hulbert's wife and child. The company still had faith in Picket, but after they had reached the Gila River he acknowledged that he knew nothing of the country. Leaving the Gila they reached the San Francisco Mountains, and found the trail of a large band of Indians, which some of them followed for some distance. Later the company with which our subject started separated and Mr. Czarnowski, with seventeen others, started for Tucson. When they reached Apache Pass they found the bodies of Colonel Stone and several men of the United States troops. Later Mr. Czarnowski was almost persuaded to go with others and fight the Indians, but instead made his way to Tucson. Had he gone with his friends he would have lost his life. As it was it was a fight with the Indians all the way to Tucson, but Mr. Czarnowski escaped without injury. From there he went to San Diego, Cal., arriving in December, 1869, and remained for four years. He was engaged in various enterprises, but leaving all this he went back to New York by way of the Isthmus, and while at home his father died. In 1874 he returned to San Diego and later engaged in real estate in Los Angeles. Still later he moved to Virginia City, Nev., following mining for several years, and was then employed

to come to Arizona as mining superintendent for a California company in Pinal County. Afterward he was employed in the same capacity by a New York company, and served for eight years. He then came to Salt River Valley and is engaged in the real estate and mining business. He organized the Phoenix fire department, of which he was chief several terms. He was also adjutant-general under Governor C. Myer Zulick. He was married in 1889 to a very lovely and accomplished lady of St. Louis, Mo., Miss Lottie Mehl, and is the happy father of four children.

HON. J. F. WILSON. Special adaptability to any particular calling in life is the one necessary adjunct to permanent success. No matter the vim and determination which characterizes a man's start in business, if it is not congenial to him his success is doubtful and the quicker he enters upon another calling the better for him. The career of Hon. J. F. Wilson has been a successful one and he is to-day in the enjoyment of a law practice at Prescott, Arizona Territory, which is the result of noble energies rightly applied. He is a native of Pulaski, Giles County, Tenn., where he was born May 7, 1846. While in and finishing his junior year in Rhehama College, Alabama, the war broke out, and his books were immediately cast aside, a suit of gray was donned, a musket shouldered and he became a member of Company B, First Battalion Volunteer Infantry—after which he was on staff duty under General Hindman until December, 1863. In the summer of 1864 he had charge of a regiment on the northern frontier of Alabama, and held the rank of lieutenant-colonel. After the fall of Montgomery and after Johnson's surrender the regiment disbanded. Colonel Wilson was wounded six different times during his service, his first wound being received on the bloody battlefield of Shiloh, a minie ball striking him in the chest. He was taken to the hospital at Tupelo, where he remained until his recovery was assured. His second wound was received at Farmington, in front of Corinth, and was a flesh wound in the right thigh, the ball grazing the bone, and his third wound was received at the second battle of Murfreesboro, a piece of shell striking him. He was next wounded by a ball in the arm at the battle of Chickamauga, the fifth wound was by a canister shot in the side and loin at Powder

Springs, Ga., and his sixth wound was received at Jonesboro, in the leg. He was in all the engagements in which his command participated and saw considerable service in Kentucky. June 15, 1865, after his command was disbanded, he went West, and after a short time spent in old Mexico he went to Texas and finally took up his residence at Yellville, Ark., where he was engaged in teaching in the public schools up to 1872. In the meantime he had begun the study of law, in which he made such rapid strides and attained such proficiency that in March, 1872, he was admitted to the bar and at once entered upon the practice of the profession. Was elected to the Legislature of Arkansas in 1876 and was a member of that body for the years 1877 and 1878 as the Representative of Monin County, in that state. He remained in Yellville until 1885, having the previous year been elected to the office of prosecuting attorney of the Fourth Judicial District of Arkansas, a position he filled with marked ability until 1887. From 1885 to 1887 he resided in Harrison, Arkansas. He then took up his residence in Prescott, Arizona Territory, and his career as a lawyer has been that of an upright and honorable gentleman. Some of the questionable practices by which some members of his profession acquire fortune and high position he has never stooped to do, and although he has been at the bar many years and has enjoyed a large and lucrative practice, no charge affecting his integrity or loyalty to the interests of his clients has ever been made. He was a member of the Constitutional Convention that drafted the constitution for the admission of Arizona into the Union as a State in 1891, and filled a vacancy as probate judge in Prescott from 1893 to 1895, during which time his rulings and decisions evinced ability of a high order, and an admirable impartiality which commanded the respect and admiration of all. He is one of the legal representatives of the Virginia Gold Mining and Milling Company, the attorney of Lawler & Wells of the Hillside Mine, the Defiance Cattle Company, the New York Life Insurance Company, and the Henrietta Mining and Milling Company. Colonel Wilson is one of the leading lawyers of the Territory and has built up a practice of which he has every reason to be proud. He is a logical and forcible speaker and his remarks to judge

and jury are never without their influence. Colonel Wilson's father, Richard J. Wilson, was a criminal lawyer for a number of years, but afterward became a planter and the owner of a large number of slaves. He was a Whig politically and died in Florida. His wife was Louise Richey, his father of English and his mother of Irish lineage.

HON. N. A. MORFORD, proprietor of the "Phoenix Daily Herald," and ex-secretary of the Territory. The subject of the adjoining cut was born near Greenville, Mercer County, Pa., in 1844. His education was begun in the common schools of his native State, continued at Greenville Academy and Allegheny College, Meadville, where, losing his health through close application, he discontinued a college course and started for the Pacific coast, arriving in San Francisco by way of the Isthmus in December, 1868.

For a time he drove a team and roughed it about the quicksilver mines of Napa and Lake counties, California, working at whatever offered to be done till having regained his health he entered the State Normal School, then located in San Francisco, and having completed a course began the business of teaching. January 1, 1873, he entered the University of California in the middle of the freshman year, in a regular college course, and graduated well up in his class in June, 1876; also as captain in the corps of university cadets, then a competitive honor.

With the exception of a year, he was at the head of the public schools of St. Helena, California, 1876 to 1882, and for several years was chairman of the Board of Education of Napa County, as such preparing an extended and valuable course of study for the public schools of that county.

In 1882 he purchased a half interest in the "Phoenix Daily Herald," Phoenix, Arizona, removing to that place in August of that year; though he had previously spent some time in the Territory in 1879 in a journalistic way and served a time on the paper he now owns. In 1883 he purchased the remaining interest in the paper and became its sole owner, making it, as a business proposition, the best newspaper property in the Territory, and in doing so necessarily the best news and political paper also.

Mr. Morford has been a prominent Republi-

can in the Territory for many years, but refused proffered public position till in 1892 he was appointed secretary of the Territory by President Harrison. By virtue of that office he became ex-officio a member of the Board of Regents of the University of Arizona, etc. He held the position of secretary of the Territory till Mr. Cleveland was inaugurated, when his resignation was promptly tendered and accepted the following July, and the office turned over to his successor.

Since then, as before, Mr. Morford has confined himself closely to his newspaper work and built up not only a fine newspaper, but an extensive job printing business and an enviable business reputation.

DR. J. N. McCANDLESS. One of the noblest professions, one of the most beneficial to mankind, is that of medicine, and while it is prosecuted for gain, it is in its very nature nearest to beneficent charity, and is very exacting upon its devotees. One of the most prominent physicians and surgeons of Prescott, Arizona, is Dr. J. N. McCandless. He is a native of Butler County, Pennsylvania, born December 4, 1837; son of A. M. and Keziah McCandless, both of whom are of Scotch origin. The father followed farming most of his life and died in Butler County, Pennsylvania. In the public schools of Butler County our subject received his primary training and subsequently graduated at Witherspoon Institute, at Butler. Following this he took up the study of medicine, for which he had early displayed a strong liking, and graduated at the Jefferson Medical College, Philadelphia, in 1863. He immediately enlisted in the Seventy-seventh Pennsylvania Regiment and was first assistant surgeon. Later he was made surgeon of this regiment and filled that position until cessation of hostilities. A part of the time he was brigade surgeon on the frontier. In 1866 he began looking around for a suitable location and continued this the eighteen months he acted as assistant surgeon of the regular army. In the fall of 1868 he located at Prescott, Arizona, and has followed his profession here ever since. He is one of the oldest practicing physicians in the Territory, having been here for thirty years, and has built up a fine practice. He is one of the leading physicians of his section and as a surgeon stands second to but few. Dr. McCandless served as presi-

dent of Yavapai County Medical Society for some time, has been health officer of Prescott and has served as trustee of the schools. Socially he is a member of the Grand Army of the Republic. In the year 1874 he was married to Miss Kate Kerr, a native of Michigan, and they have two children, Lewis W. and Eva J. In politics the doctor is a Republican. He is a representative man of the Territory. In connection with his profession he owns one of the largest and best equipped drug stores in Prescott, and is also the owner of some mining property. For some time he was interested in ranching.

DAVID L. MURRAY. This gentleman, who is the treasurer of Maricopa County, Arizona, is worthy and well qualified in every respect for the responsible position he fills, and, being a whole-souled, generous man, is deservedly popular with the public in general. He is a native of Greene County, Missouri, born January 31, 1847, and the son of John and Annis (Sullens) Murray, natives respectively of North Carolina and Tennessee. When both parents were young they went to Missouri and there were married. The father followed farming all his days and the closing scenes of his life were passed in Missouri. Industrious and persevering, honest and reliable he was prominently identified with all affairs of moment and held the office of judge of Greene County for some years time. To him and his worthy wife was born one child, our subject, but by a previous marriage the parents had several children. Our subject reached mature years in his native county, attended the country schools and assisted in the arduous duties of the farm. Later he entered the State University, but on account of illness remained but two years. He then, for some years, was employed in mercantile business. In 1873 he went to Colorado, located in Huerfano County, and there engaged in stock business, which he followed with fair success until 1875. From there he went to San Juan County and was engaged in the cattle business, meeting with unusual success. For five years he was surrounded by Indians, but he never had any serious trouble with them. In the year 1883 he went to Southern California, remained there a few months and in December, 1883, came to Phoenix, Arizona, where he immediately engaged in the live-



HORSE SHOE, TWO MILES SOUTH OF ROCK BUTTE, ON THE LINE OF THE S. F. P. & P. RAILWAY.

stock business, buying ranch cattle. Later he embarked in the butcher business, and brought his cattle, as he needed them, in from the mountains and supplied Phoenix with first-class meat. As his trade increased he opened two meat markets in Phoenix, and these he conducted for about six years. In 1891 he built a good cold storage plant, the first one in Phoenix, and in this he could store twenty beeves, always having his meat in excellent condition. In the month of March, 1893, he sold out his market and engaged in the live-stock commission business, which he carried on until 1894, in the fall of which year he was elected Treasurer of Maricopa County. This position he still holds, and discharges its duties in a most satisfactory manner. Mr. Murray owns property in Phoenix, and is very comfortably fixed. While a resident of Colorado he served as Commissioner of La Plata County one term, three years. Although he started out to fight life's battles with limited means, by force of character and unusual determination he has made his way to the front and is honored and esteemed by all. As a stockman he is thoroughly posted, having been in the business most of his lifetime. But while thus engaged he did not lose sight of his duties as a citizen. He has many warm friends throughout the Territory, and is very popular with the masses. For twenty-four years he has been an Odd Fellow. He is also a member of the Woodmen of the World. In the year 1869 he wedded Miss Sarah F. Guthrie, a native of Missouri, and they have three interesting children—William J., Lillian and Etta. Politically Mr. Murray is a Democrat.

HON. JOHN A. MARSHALL. It is the men of broad and comprehensive views who give life to communities and build cities; men who have foresight and energy, pluck and push to forward their enterprises, and still retain an untarnished reputation through it all. Such a man is John A. Marshall, one of the best known men in this part of the Territory.

Mr. Marshall was born in New Glasgow, Nova Scotia, July 12, 1850, and received his education in the public schools and in college.

At the age of seventeen he entered the shops of the Arcadia Iron Foundry, located in New Glasgow, N. S., there learning the trade of machine

forging. At the age of twenty-four he severed his connection with that company, and bid farewell to his native land. He landed in Virginia City, Nev., August 1, 1874, and immediately took up the trade of his choice. On June 6, 1878, he was married to Jennie S. Fraser, also a native of New Glasgow, N. S. To them have been born four children—Harry F., Ralph K., Ivey and Hazel.

Harry died at Silver King, A. T., July 10, 1882; the remaining three—two boys and one girl—are still living. In May, 1882, Mr. Marshall, with his family, moved from Nevada to Arizona, where he has since resided. He is located in Phoenix, the capital of Arizona, where he has a handsome home. With his brawny arm he still wields the hammer, carrying on the largest blacksmith business in Phoenix.

In 1892 he was elected to the House of Assembly, he being the only Republican elected to a legislative office in Maricopa County.

Two years later he was again elected to the Assembly by a handsome majority.

Mr. Marshall also filled appointments under Governor Irwin and Governor Hughes.

Mr. Marshall, as may be inferred from the above, is a man of character and push. As a business man he has been unusually successful, though his native modesty never allows him to make a show of the fact. As a legislator he proved to be a capable, conservative and intelligent law-maker, always in earnest, for law to him means something, and always on the progressive and right side of any question. His record as a legislator is clean and honorable, more than can be said of many a legislator. Mr. Marshall is not a particularly aggressive man, but he is eminently conservative and always certain of his footing on every question. His constituency were not mistaken in sending him to the Legislature. He is a strong temperance man, has never taken a drink of liquor in his life, and is one of the foremost anti-liquor men in Arizona. At present he is filling the chair of Past Grand Chief Templar of Arizona.

Mr. Marshall visited his parents, Andrew and Jessie (Kerr) Marshall, in New Glasgow, Nova Scotia, December 1, 1895, it being the anniversary of their golden wedding. Both parents were 75 years old. The "New Glasgow Enterprise" says: "One of the grandest social events that

ever occurred on Frasier Mountain took place at the residence of Mr. and Mrs. Andrew Marshall on December 2, 1895, the occasion being the celebration of their golden wedding. Gathered around their happy home were to be seen their children and grandchildren, relatives and friends. More than ninety persons sat down to the tables," etc. The parents are both native Nova Scotians, and the former of Scotch origin, his parents coming from Dumfreeshire, Scotland.

JOHN T. DENNIS. This pioneer settler of Phoenix, Arizona, was born in Ohio, Muskingum County, January 8, 1840, to John and Sarah (Lewis) Dennis, the father a native of New Jersey and the mother of New York. The grandfathers on both sides were in the Revolutionary War, and John Dennis served in the war of 1812. The latter was a successful business man and farmer. In 1847 he removed to Iowa, but about six years later returned to Ohio and settled in Guernsey County, where he died in 1858. The mother passed away in 1840, leaving our subject, who was but six weeks old. He was tenderly reared by his father and at an early age became well versed in all that pertained to farm life, and was educated in the common schools. When nineteen years old he left home and crossed the plains to California with an emigrant train, his business being to drive the cattle during this journey. Stopping at Marysville he remained in that State for two years and a half, engaged in mining, and in July, 1862, came to Arizona, making the trip on a pack mule. He first halted at La Paz, now Ehrenberg, and for three years was engaged in mining at that place. Following this he began teaming and ranching and in December, 1868, located in Salt River Valley, when there was not a house on the present site of Phoenix. He took up a tract of land and has since made his home in this vicinity. During these early times he experienced considerable trouble with the Indians, his stock and other property often being stolen; but although he was bothered by them at any and all times, he never received any personal injury. When he first settled in this section he was obliged to get his supplies from Wickenburg, a distance of sixty miles. He had the honor of opening the first store in Phoenix, and started this before the town had been laid out. He was actively engaged in

merchandising until 1874, when he embarked in other enterprises, principally teaming, farming and lumbering, all of which he carried very successfully until 1887. Since that time he has been practically retired. He owns considerable property in Phoenix, and has some fine additions. On one of his additions Phoenix was first started. Mr. Dennis has been one of the Asylum Commissioners, and is a member of the City Council. There are but few old pioneers now living in Phoenix, but Mr. Dennis is one of them. He has been a valuable citizen, aiding and assisting in every way the advancement of the city, and his record is without a blemish. In the year 1888 Mr. Dennis married Mrs. Ada Bowers, a widow with one child, Ulvah. Mrs. Dennis was the daughter of Granville H. and Narcisy Hogan, one of the oldest Southern families in Tennessee. During pioneer times Mr. Dennis experienced many hardships, and had many unpleasant adventures. He assisted in cutting the brush and surveying the town of Phoenix, and he also helped to organize the Maricopa & Phoenix Railroad, in which he was a stockholder, and in which he served as vice-president at one time. This road was first the Phoenix & Maricopa, but when the company failed it was changed to Maricopa & Phoenix. The first postoffice was established in our subject's store in 1872, with W. H. Hancock as postmaster.

R. C. WOODRUFF. Some lessons of genuine worth may be gleaned from the life of every man, and the history of R. C. Woodruff has been marked by all that goes to make up useful and honorable manhood. He possesses in a marked degree the push, energy and determination necessary to a successful career in any occupation, and his excellent reputation and the admirable manner in which he has discharged the various duties of life, place him in the foremost ranks of the representative business men of Prescott. He is a native of Detroit, Mich., born in 1858, and in the public schools of his native city, and under the careful and able instruction of a private tutor, he received a thorough education. When in his nineteenth year he entered the Second National Bank as a clerk, but later accepted the responsible position of paying teller in the First National Bank of Detroit, having previously held, however,

nearly every position under this, thus acquiring a practical insight into banking methods. In 1889 he went to Salt Lake City, and was there located for three years as a money lender, but in January of the following year he came to Prescott to enter upon his duties of cashier of the Prescott National Bank, a position he has filled with marked ability up to the present time. Mr. Woodruff is one of the organizers of this well known and popular banking house, and was one of its incorporators. His first object in coming to Prescott was to look over the ground and see if it was a suitable place for locating a bank, and his good judgment in locating the bank here has been demonstrated, for the bank has always paid good dividends from the start. Mr. Woodruff is thoroughly posted in all that pertains to banking, and as the business is in accord with his tastes, and as he possesses unlimited energy and push, he could hardly fail of success. In every worthy particular he is a thorough business man and has clearly demonstrated that the old saying "a prophet is not without honor save in his own country," is untrue, for he is universally respected. He is of a genial and social disposition, and is an active and honored member of various clubs and social organizations. Mr. Woodruff, in 1892, led to the marriage altar Miss Florence J. Kimball, by whom he has two children—Russell K. and Adelaide. He and his wife are church members.

HARRY BRISLEY. Few persons realize the magnitude and importance of the drug business, and to be successful in it requires that a man must have good judgment, must be careful and painstaking and must have a thorough and experienced knowledge of the calling. A man particularly worthy of note in this line is Harry Brisley, who has been a prominent and successful druggist of Prescott, Arizona, since 1888. Mr. Brisley was born in the County of Kent, England, in 1862, and received his education in a leading commercial school of the same county. After leaving school he was apprenticed for five years to the drug business in London, England, and in 1881 he came to America, where he graduated at the Chicago College of Pharmacy in 1886. After this he clerked in a drug store at Oak Park, a suburb of Chicago, for about two years, and then went to Arizona Territory for his health.

He settled in Phoenix and was there permanently cured of his lung trouble. Seeing that the climate agreed with him, Mr. Brisley decided to go into business at Prescott, and having purchased a half interest in a drug store there, entered actively upon his career as a business man. A year later he purchased the entire business and it has grown to be one of the best in Northern Arizona. Mr. Brisley also owns and conducts a drug store at Jerome, the only store of the kind in the county outside of Prescott. He is a progressive, wide-awake, stirring young man and is well posted on all that pertains to his business. He is a full-fledged American citizen, having his adopted country's interests at heart. Mr. Brisley is a member of the Independent Order of Odd Fellows, also the Ancient Order of United Workmen, and has passed all the chairs in the former organization. In the year 1888 he married Miss Clara Pinchon, a native of England, and they have two children—Mabel, aged four years, and Harold R., aged eight months.

HON. HUGO RICHARDS. Characteristic of the American is the ability to change the line of his business and achieve success in what he undertakes. Of the old adage, "A rolling stone gathers no moss," the reverse may often be said to be true if accompanied by the true spirit. Fortunate is he who can—when times are troublous and circumstances hard—keep his eye fixed on the goal, and forge ahead to grasp success as a reward for his striving. A gentleman, who, without adventitious aid or accident of birth, has attained to wealth and distinction in public affairs, is Hugo Richards, now president of the Bank of Arizona in Prescott. He was born in St. Louis, Mo., November 6, 1838, to the marriage of Hugh Richards and Mary Vanderberg, the former a native of Wales and the latter of Indiana. Hugh Richards came to America at an early date in the present century, and in the year 1820 located in St. Louis, Mo., where he followed the trade of tobacconist until his death in 1838. To his marriage to Miss Vanderberg was born a large family. In the Mound City young Hugo Richards was reared and educated, first attending the public schools and later a private school. While still but a boy he became bookkeeper for the firm of Thomas & Papin, wholesale grocers, of St. Louis, with whom

he remained for a few years. In 1860 he went to Pike's Peak, Col., and later engaged in merchandising in Denver, Col., where he remained during 1860 and '61. In 1863 he moved to Montana, and resided in Virginia City, where he was engaged in mining for about a year. He returned to Denver in about 1865, and there remained until 1868, when he went to California. During the years 1867 and 1868 he was agent for an overland stage line, before the Union Pacific Railroad was built, and was with Ben Holliday and the Wells-Fargo Company. Later he went to California, and while there was in the employ of Ben Holliday, of the North Transportation Company, and was stationed at San Francisco. In 1871 he made his way to Arizona as post trader for Camp Verde Military Post, and remained there until 1872, when he sold out and has since made his home in Prescott. He is one of its pioneers and has been identified with the county's interests in more ways than one. Ever since his residence in the Territory he has been actively engaged in mining, and now owns valuable silver and gold mines. He is also largely interested in ranching, owning a good cattle ranch on Dade Creek, Yavapai County, and has it stocked with several thousand head. Mr. Richards also owns considerable town property, consisting both of business blocks and residences. He was a member of the Territorial Legislature in 1875 and again in 1877, and is a well known and prominent man. Politically he is a staunch advocate of the principles of the Democratic party. About the year 1879 Mr. Richards became a stockholder in the Bank of Arizona at Prescott, and has now been its president for a number of years. He is a prominent Mason, being a Knight Templar and a member of the Mystic Shrine, and takes a deep interest in the workings of this order. In 1890 he was married to Miss Emma Towne, a most estimable lady and a native of New Jersey, who presides over his fine home in Prescott.

HON. M. H. McCORD. Prominent men seldom rise to distinction suddenly. But in the example before us we have a man, without any special fortuitous circumstances rising by his own force of character, learning and good judgment, to a front place in the ranks of honorable and influential men. To reach a high mark of success in any direction is, in these days of rush

and activity, no easy matter, but let a man once reach this mark and he is regarded with respect and admiration by all. Hon. M. H. McCord is a man who, by his own superior ability, now occupies a most enviable position. He was born in McKean County, Pennsylvania, November 26, 1840, and in the public schools of that county received a fair education which fitted him most admirably for his subsequent prosperous career. When but a boy he engaged in the lumber business, going to Wisconsin in 1854 and locating at Shawano, where he remained until 1874. He carried on an extensive lumber industry at that place, but subsequently removed to Merrill, that State, where he engaged in the manufacture of lumber, sash, doors and blinds, carrying it on most successfully and extensively until 1884. Afterward he followed banking, in connection with this, until 1892, and was one of the organizers of the First National Bank and a director in the same. During the years 1873, '74, '75 and '80 and '81 he was a member of the Wisconsin Legislature, and in 1888 he was elected from the Ninth District of Wisconsin a member of Congress on the Republican ticket, serving one term. In 1893 he came to Arizona and located at Phoenix, where he engaged in farming and fruit raising, which still continues to claim his attention. He owns a fine ranch and raises apricots, almonds, oranges, etc., having fifty acres in fruit. In the month of March, 1895, he was appointed a member of the Board of Control and has charge in part of the charitable, penal and reformatory institutions of the Territory. Mr. McCord is a Thirty-second degree Mason and a member of the Mystic Shrine. He is a man well known in political circles and a wide-awake, stirring Republican.

BENJAMIN A. FICKAS. Maricopa County, Arizona, may well be proud of the amount of brains possessed by her representative citizens, for, taken as a whole, there are none brighter, more intelligent, or with more ability or push in any direction, and among the number is Benjamin A. Fickas. Like many of the representative men of the county, he was born in the East, his birth occurring in Warrick County, Indiana, July 6, 1848, and he there received a good practical education. In the year 1863 he enlisted in Company A, One Hundred and Forty-third Indiana

Volunteer Infantry, and served until the close of hostilities. After that he went to Missouri, made his home there until 1872, and then went to San Diego, Cal., where he remained until 1876. From there he made his way to Tombstone, Arizona, and later became clerk of the District Court and filled other positions of trust in that place, being a member of the Territorial Council in 1880 and 1881. Mr. Fickas was largely interested in the formation of Cochise County at that rather stormy session. He has been closely identified in educational and lodge matters since living in Arizona, being school trustee at the organization of schools in Tombstone. At the present time he is president of the Phoenix School Board. He was the first Grand Chancellor, Knights of Pythias, of Arizona, and the first member initiated in the endowment rank of that order in Arizona. He was supreme representative of that body from 1886 to 1890 and now (1896) is supreme representative to 2,000. Mr. Fickas has been prominently connected with the Ancient Order United Workmen since 1881 and has given liberally of his time and money to the same. He has been a prominent member of the I. O. O. F. ever since he reached his manhood years. At any and all times he takes a decided interest in the politics of Arizona and was unanimously elected chairman of the Territorial Democratic Committee of Arizona in 1894. It is hardly necessary to add that he is an uncompromising Democrat, and a staunch supporter of his party. In the month of July, 1880, Mr. Fickas was married to Miss Mary Ella Moody of Warrenburg, Mo., and of one of the oldest and most highly respected families of that State. Four children have blessed this union, two sons and two daughters, viz.: Elizabeth Jane, William Moody, Mary Ella and Melville Phillip. Mr. Fickas is very domestic in his taste and is a devoted home man. He organized the Valley Abstract Company in 1887 and has been president of that institution ever since. He enjoys the full confidence of the county and of the Territory as a conservative man, and has a host of warm friends.

CHARLES H. AKERS. Charles H. Akers, who is the able and most efficient Clerk of the Board of Supervisors of Yavapai County, Arizona, is a public-spirited citizen, in harmony with advanced ideas, intelligent, progressive, and has

at heart the good of his country generally. He is a product of Marengo County, Iowa, born September 21, 1857, and the son of Dr. John H. and Alma (Harbaugh) Akers, natives of Ohio. The parents moved to Iowa at an early day, and there the father practiced his profession and won considerable reputation in that line. His death occurred in 1880. The mother is still living, and is now seventy-seven years old. Of the eight children born to them, four besides our subject, are now living—Elizabeth, Nancy, Tillie and Josephine. One son, John B., was killed in Prescott by a saw mill explosion; James W., and another child died in infancy. In 1871 the family removed to Kansas, locating in Johnson County, where our subject acquired a common school education. Then being of a roving disposition, he left home without the permission of his parents and went to Denver, Colo., where for the first three months he worked in a brick yard. After this he was engaged in herding mules at night for Benning & Gallup, the first railroad contractors of Colorado, and remained with them about eighteen months. Returning home in November, 1874, he attended school about four months, and the next spring the country was eaten up by grasshoppers. He then became disgusted with Kansas and went to Iowa, where he worked for Thomas Hall, of Creston, as buyer of cattle for a short time in the early part of 1875. After this he was placed in charge of the Fire Department of Creston, which position he held as manager for five years. In 1879 he had a severe attack of the Leadville fever, which nothing would subdue, but a visit to that section, and in July of that year he reached that city. There he engaged in mining with some success, and remained in that section until December, 1880. He then came to Arizona on horseback, and reached Prescott on the 1st of February, 1881, completely "broke." He immediately secured employment in a saw mill at \$50 per month, and was thus engaged for one year. After this he began prospecting and found a claim known as "Happy Jack" silver mine, which he sold for a good profit. He spent about a year prospecting and put his money in the bank, after which he entered the store of W. S. Head & Co., at Ft. Verde, where he remained two years and a half. Again he was seized with the mining fever, and went to "Tip

Top," where he lost all his money. In August, 1888, he went to Phoenix and began working on the Maricopa & Phoenix Railroad as a section hand with a lot of Mexicans, and received \$1.25 per day. There he remained about four months, and in November of that year came to Prescott, Arizona, where he clerked for Joe Dougherty until September, 1889. Mr. Akers then became a candidate for county recorder on the Republican ticket, and was the first Republican in the county ever elected to that position. So ably and well did he discharge the duties of that position that he was re-elected in 1890 and held the office four years. In January, 1893, he was elected to his present position, and re-elected in January, 1895. Mr. Akers has had a varied and eventful career, with many "ups and downs" of life, and he can sympathize with those who have been less fortunate than himself. In September, 1894, he was made chairman of the Republican Central Committee. He is a member of the Knights of Pythias and Woodmen of the World, and is an active and most highly esteemed citizen. For some time he was assistant chief of the Fire Department, and is now the Chief of Department. In April, 1889, he was married to Miss Herndon Philpott, who died six weeks later. He was married to Miss Jennie E. Bryan in December, 1891, and they have two sons, Bryan, aged two years, and John, an infant. Mrs. Akers is a member of the Episcopal Church. Mr. Akers is abstracter and conveyancer of Yavapai County and Prescott. He is also a member of the Executive Committee of the Territorial Republican Central Committee.

Mr. Aker's brother, John B. Akers, came to Arizona in 1865. He started from Western Kansas with a pack train, and in a company consisting of eighteen men. He and another man were the only ones who reached their destination in safety, the others being killed by the Indians.

M. H. SHERMAN. Progress can be no more forcibly illustrated than by placing the past side by side with the present. Men forget what has disappeared from view and assume unreflectingly that the comforts of to-day have always existed. To show the advancement made by Phoenix in a few short years it is only necessary to halt adjacent the queer little long-eared burro street cars, that are still running on one connecting line, and

the swift gliding, perfectly equipped electric motors with which the Phoenix City Railway Company moves its passengers over the five miles of distance that represents the east and west limits of Arizona's capital. In four years after the burro system had been adopted it had been outgrown. The people were too numerous for it, and they insisted upon rapid transportation. Accordingly, on the 28th of February, 1893, the Phoenix City Railway Company was incorporated, with General M. H. Sherman for president, Colonel William Christy, treasurer, and B. N. Pratt, secretary. The equipment of the electric line now includes five electric motors, in connection with which are used four trailers and several two-horse cars. No matter how rapid may be the heart beats of the Phoenician, he will find the Phoenix City railway ever ready to set the pace for him. Altogether the road is one of the most substantial and completely equipped electric street car lines in the Southwest, outside, possibly, of Los Angeles, and for many years to come it will hold that position. Work was commenced on this railway July 27, 1893, and was finished September 26 of the next year. The track and overhead work of the electric line are of the most substantial character; the company sparing no skill or expense to make them of the best. The iron is thirty and thirty-five pound steel rails, and they are laid on six by eight inch selected redwood ties, brought from Oregon, and laid in heavy rock ballast, all work being done in the most substantial manner.

M. H. Sherman, president of the Electric Street Railway, is a native of the Empire State. Until the age of sixteen he attended the common school and assisted on the home farm, but at the age of nineteen, he decided to see something of the West and not many weeks later was in Prescott, Arizona. There he taught school for some time and worked at any other honest employment he could find, thus saving a little money. His first investment was the purchase of a cattle ranch, and in this he met with unusual good luck. In the latter part of the seventies he came to Phoenix, purchased property and built the street car line which was running as a horse car line. He was president of the Valley Bank for some time, and was quite prominent in all public affairs. He was superintendent of public instruction of Arizona, and was the owner of the Phoenix Water Works. Mr.

Sherman was a large stockholder in the Valley Bank and Arizona Improvement Company, and he gave the capital site to the Territory. He is the largest individual taxpayer in Arizona. Although many of his interests are centered here, Mr. Sherman resides in Los Angeles, Cal., where he also has large interests. He was president of Los Angeles Consolidated Electric Railway and also of the electric road running from Pasadena to Los Angeles, and the electric road from Los Angeles to Santa Monica, which has just been completed, and is a sea shore road with an immense business. Mr. Sherman has numerous other interests, both in Arizona and California, and is a stockholder in the National Bank of California. He is a man of strong character and peculiar individuality. All his business undertakings have been quite successful, and he has done a great deal to build up and develop the Territory.

THOMAS ROACH. This intelligent and thoroughly wide-awake man of affairs has held many prominent positions of trust in Yavapai County, Arizona, and is now an active member of the Board of Supervisors. He first saw the light in Saratoga County, New York, April 11, 1845, and remained in that county until twenty years old, there receiving his education. He was early trained to the duties of the farm, and on the same learned habits of industry and perseverance which have remained with him through life. In the year 1865 he came West and located at Denver, where he engaged in teaming and freighting for about two years. The two years following this he wandered around through various Territories engaged in prospecting, mining and freighting, but he subsequently went to Kansas, where he was engaged in the cattle business for about two years. The winters were very severe there and killed off all his cattle. He then went to Indian Territory, was engaged in freighting for one year, and from there made his way to New Mexico in 1872. There mining occupied his attention for three years, and he was successful in this enterprise. In the year 1875 he entered Arizona Territory and located in Turkey Creek, twenty miles south of Prescott, where he has made his home ever since. He entered the claim where he now lives very soon after coming here, and he is now interested

in the Cumberland group of mines, as well as a number of other gold mines. Mr. Roach was also engaged in silver mining until there was nothing in it, owing to the decline in the price of silver, operating a claim on Goodwin Lode. He has been very successful in mining in Arizona, but in connection is engaged in ranching, owning a small ranch, on which he has some cattle and horses. In the year 1893 he was elected a member of the Board of Supervisors and filled that position so capably and efficiently that he was re-elected in 1895. He is a well known man of the Territory. Since first locating in Arizona Mr. Roach has witnessed many changes and has contributed his share toward subduing the wilderness. Since living in the West he has been attacked by Indians a number of times, and was once in an ox train on the Platte River that was corralled for three days by the Sioux Indians, but has always escaped uninjured. When he first settled on Turkey Creek he put up a little cabin and a small smelter, which turned out the first silver bullion in the county. He employed a large number of men and made money. At that early date there were no roads, just a few trails, and everything had to be carried on pack mules. There was a time when a pound of flour could not be obtained in the country, and they were obliged to go to the Post and get "hard tack." Many a time has Mr. Roach gone hungry. At the present time there are good wagon roads and the country is in a prosperous condition.

HON. THOMAS FITCH. The century whose evening is upon us, and the shadows of whose end are creeping o'er us, has been, in America, prolific of the class of men who have been styled, not inaptly, self-made. By this term have been designated men who, without wealth or the advantages of collegiate training, have educated themselves in a practical way and by sheer force of character, have gained an enviable position among the substantial and worthy citizens of any community. One of the most notable of this class is Thomas Fitch. He was born in New York City, January 27, 1838, and from the age of ten years he has made the struggle of life alone, and is self educated. When a young man he was engaged in merchandising, following that until twenty-one years old. In 1859 he branched

out in the journalistic field, on the Milwaukee "Free Democrat," and was thus occupied until the summer of 1860 when he went to California. From that date until 1863 he was with the San Francisco "Gazette," "Times," and afterward with the Placerville "Republican." From there he went to Nevada in 1863, and was editor of the Virginia City "Union," but during this time kept up his law studies. Previous to this he was elected to the Legislature of California from Eldorado County, and in 1864 he was elected from Virginia City a member of the Convention to form a State Constitution for Nevada. In 1864 he was admitted to the Supreme Court of Nevada. In 1865 Mr. Fitch removed to Washoe County, Nevada, and soon after was appointed District Attorney for that county. At the expiration of his term he removed to Belmont, Nevada, and there practiced law until 1868 when he was elected to Congress. In 1871 he went to Salt Lake City in connection with mining litigation, and while there was employed by Brigham Young and had charge of all the criminal and civil litigation in which he and the Church leaders were involved. While in that city he was elected a member of the Constitutional Convention and aided in forming a State Constitution for Utah. He was elected one of the United States Senators from the proposed State of "Deseret," but Utah was not admitted into the Union. In 1874 Mr. Fitch moved to San Francisco and made his home there until 1877. At that date he came to Arizona, located and practiced law there until 1884. In 1879 he was elected a member of the Legislature from Yavapai County. In 1884 he left Arizona and for the next eight years resided part of the time in San Diego, and some time in San Francisco County, and about two years in New York City. Returning to Arizona in 1893 he settled at Phoenix, and has resided here since.

B. N. PRATT, secretary and manager of Phoenix Street Railway, was born in California, in Cisco, July 19, 1867. He was educated in San Francisco and is a graduate of St. Matthew's Hall, of that place. After spending one year on a ranch and four years in a bank at Riverside, California, he left for Arizona, and in 1889 was made secretary and manager of the Phoenix Street Railway, which position he has held up to the present. To

his untiring vigilance and faithfulness is the company largely indebted for the splendid road and equipment they have, and above all for the successful operation of the same. Although a young man, he is thoroughly capable of filling his present position, and is wide-awake and progressive. Mr. Pratt was married in 1891 to Miss May Heap, of Riverside, Cal., and they have two sons, Howard and Harold. Mr. Pratt is a stockholder in the street railway, and is the owner of considerable property, both in the city and in the country. He is also secretary and manager of the water works.

J. W. SMITH. The nature of man is so complex, his individuality so pronounced, his process of reasoning so varied and peculiar, that no two human beings are ever found to be nearly alike. Some men snatch success from the very jaws of failure, some are alternately prosperous and unfortunate, while a few are so evenly balanced that their lives appear to be utterly free from friction. While the latter is not strictly applicable to the subject of this sketch—J. W. Smith—yet on the whole, his career has been practically one of steady progress and his present success is owing to his individual efforts. He is a native of Springfield, Ill., where he was born February 2, 1859, to Dr. A. J. and Caroline (Brown) Smith, the former of whom was born in Kentucky and the latter in Indiana. At an early day they removed to Illinois, and at Springfield and in the vicinity of that place the father practiced medicine and surgery very successfully for a number of years. During the Civil War he was a surgeon in the Union army, and after many a bloody battle plied his noble and most useful calling. After leaving Springfield, he removed with his family to Dallas County, Iowa, where he has since devoted his attention to the practice of the healing art. He and his wife became the parents of three children: Charles H., a resident of Denver, Colorado; James W., the subject of this sketch, and Mary A., who lives in Delta, Colorado. Until he had reached the age of eighteen years, J. W. Smith continued with his parents in Iowa, during which time he acquired a practical education in the public schools. At the above mentioned age he began the study of telegraphy, but the calling proved distasteful to him and he abandoned it. In 1877 his adventurous

and energetic nature led him to the Black Hills, during the gold excitement of that region, and there he was alternately engaged in mining and the livery and hack business at Deadwood and Central City. He continued to follow these occupations successfully until 1882, when financial reverses overtook him and he disposed of his business and came to Arizona Territory. After residing for a short time in Lonesome Valley, he came to Prescott, and for about eighteen months clerked in a grocery store. At the end of this time he began dealing in cattle and purchased a ranch at Walnut Grove, about forty miles south of Prescott, of which he is still the owner and which he has well stocked. Besides this valuable property, he is interested in mining and owns an interest in the Johnson group, which have been worked since 1867 on a paying basis and which is considered one of the best gold mines in the Territory. Mr. Smith has always manifested great interest in the welfare of Yavapai County and in 1892 was elected a member of the Board of Supervisors and two years later was chosen chairman of the same. In this capacity he has always advocated all measures for the improvement or building up of the county and has been the means of accomplishing much in this respect. He is one of the representative young men of the Territory and his present prominence in local affairs and his financial prosperity are owing to his own energy and business qualifications. Politically he has ever been a Republican and socially has taken a number of degrees in the Masonic fraternity. Mr. Smith is unmarried.

JOHN KNOX DOOLITTLE. The subject of this sketch is a native of the state of New York, born at Scottsville, March 26, 1851. His father was a Presbyterian clergyman of positive opinions and strong convictions. Young Doolittle's boyhood days were spent in different states, New York, Pennsylvania, Ohio and West Virginia. His educational advantages were somewhat meager, limited after twelve years of age to a year in the academy at Geneseo, New York, and a year at the Red Creek Seminary in that state. After teaching for some time in Sterling Valley, he then looked forward to a course of collegiate study. This privilege was denied him, but untoward circumstances could not quench his controlling ambition to be a lawyer. By the death

of his father our subject, who was the eldest of the family, was left at the age of twenty the main support of a family of nine children. For six years he had this great responsibility on his shoulders.

In the spring of 1872 he entered the employ of a growing wholesale house at St. Paul, Minnesota, and there he remained for six years. This mercantile experience was trying and laborious, but it gave him an opportunity to study from the inside the growth of the West, from the commercial and financial standpoint. Meanwhile he had devoted many midnight hours to the study of the law. At last the years of strenuous exertion made serious inroads upon his strength. To recuperate, and hoping to forward his professional ambition, he resigned his position in 1878, and moved to South Dakota, then a territory. Here fortune smiled upon him. He successfully organized a profitable loaning business, was admitted to the bar in 1880, and commanded a constantly increasing professional practice. This was largely in the field of real estate law, especially in reference to government land titles, in which he became a specialist and a recognized authority. In 1883, he was married to a daughter of Captain J. C. Whitney of Minneapolis, and two living children bless the union. In 1885, seeking a larger field, Mr. Doolittle removed to Minneapolis, Minn., where he was engaged in the successful practice of his profession, principally in the departments of real estate, corporation and irrigation law, until 1891.

In the latter year he was retained by the Rio Verde Canal Company, a corporation of Phoenix, Arizona, to assist in its organization and the formulation of its plans. Later he abandoned his miscellaneous practice and became officially connected with that corporation as its secretary and attorney. For this position Mr. Doolittle was peculiarly adapted, both by taste and training. It required the combination under difficult conditions of energetic business activity with legal sagacity of a high order. The very difficulty of the problem has seemed to add to the personal satisfaction of successful solution. In this field he was free from many of the small annoyances of the general practitioner, and enabled to devote his time and thought to important questions. The financial exigencies of the corporation demanded that the lands to be irrigated be speedily

occupied and become revenue producers. The existing laws were not adapted to the situation, and the attitude of the Interior Department was somewhat hostile to any special effort to supply the deficiencies of the law. Time was important, and Mr. Doolittle was uncompromising in his determination that nothing should be done which was not in accordance with both the letter and the spirit of the law. Plans were accordingly adopted and successfully executed which have contributed in no small degree to the unqualified and unique success achieved by the Rio Verde Company.

Though not a college man, Mr. Doolittle is emphatically a student. With him private reading has largely taken the place of formal education. He cares for knowledge, however, not so much for its own sake, as to make it a means to an end. He is fond of going to the roots of things. Though recognizing to the fullest extent the place of tact and policy in business and legal affairs, he believes the straight road to the gist of a transaction or dispute, the most direct path usually to a correct and successful conclusion. In his opinion, the golden rule embodies the fundamental principle which leads to the largest business success. He is fond of stating the principle in the negative form, that he will do nothing, which were he on the other side, he would not consider the fair and proper thing to do. Mr. Doolittle has never been an office seeker, nor very much of a politician in the ordinary acceptance of that term. He takes, however, a deep interest in public affairs, and contributions from his pen have had much influence in the settlement of several important public questions. When the issues of a political campaign are of a sufficient importance to thoroughly arouse his interest, his pen and his organizing ability are a tower of strength to his associates, and a menace to their adversaries.

GEN. M. E. COLLINS. There is no other form of investment as safe and profitable as the judicious outlay of capital in real estate, and no city in the Union offers such advantages and opportunities as Phoenix, Arizona. This market is one which by its continual progress and great future possibilities extends an invitation to men of means or business ability to reach a high plane of success through the market's chan-

nels. Among the enterprising men who have recognized this fact and who are reliable dealers in realty stands the name of Gen. M. E. Collins. He was born in Ripley, Ohio, April 22, 1832; son of Theodore and Mary (Evans) Collins, natives of the Buckeye state. The father owned a saw mill and built steamboats and flatboats for Ohio trade on the Mississippi River. Later he began tilling the soil in Ohio and died in Brown County, that state, as did also his wife, who was eighty-six years old at the time of her death. Mr. Collins was a pioneer Abolitionist, and reached the unusual age of ninety-three years. They were the parents of ten children, six of whom are living at the present time: Dr. D. B. of Virginia City, Nevada; Nancy Armstrong, George, Theodore and Susan. Gen. M. E. Collins is next to the eldest of the living children. He secured a good practical education in the public schools, and at an early age began the study of law, being admitted to the bar in the Supreme Court of Illinois about the year 1861. In 1863 he was elected treasurer of Livingston County, Illinois, and served one term. After that he began dealing and operating in lands and purchased tracts at Glyndon, on the Northern Pacific Railroad, some at Duluth and some at Bismarck. In 1872 he went to Chicago and made two or three additions to that city by buying tracts and dividing. He remained in Chicago until 1882, when he removed to Riverside, California, and thence, later, to Los Angeles, where he remained until 1886. At that date he landed in Phoenix, Arizona, and immediately began dealing in real estate. He made the University addition, Capital addition, Collins' addition and has been extensively engaged in real estate up to the present. He built the first street railway in Phoenix and first cement walks. At the present time he owns about 1,100 lots, ranging from \$250 to \$500 a lot. His Capital addition is situated at the west end of Phoenix, on the electric line running through the center, and it is the most valuable residence property in the city. Mr. Collins has been one of the promoters of the building up of Phoenix. He has invested all his money right here and is a great believer in the future greatness of the place. He was a member of the Board of Commissioners of Insane Asylum for some time, but he has led an extremely active life in his chosen calling, and has

had no time to seek office. He deals exclusively in his own property and is a thoroughly posted real estate dealer. Mr. Collins was married in 1868 to Miss Martha A. White, who died in 1890. He has one daughter, Hattie, who is the wife of John N. Hunt of Los Angeles, Cal. Politically the General is a Republican.

JAKE MARKS. In early days there drifted within the borders of Arizona men of splendid talents and marked genius, who sought new scenes, far removed from those of earlier days. One of those whose life is closely connected with the advancement of Arizona is Jake Marks, the present receiver of United States land office at Prescott, Arizona, to which position he was appointed by President Cleveland in February, 1894. On the first of April of that year he assumed the duties of that position and has proved a most capable official. Mr. Marks was born in Jefferson County, Kentucky, November 30, 1833, and was reared and educated in Louisville of that state. When sixteen years old he left home and turning his face toward the setting sun, went to seek his fortune. He took passage for San Francisco, and going by way of the Isthmus, reached Yreka, Siskiyou County, California, in 1852. There he was engaged in mining and merchandising and was also post trader at Ft. Jones, California. In 1858 he went to Frazier River, British Columbia, and while there was engaged in mining and merchandising for ten years. He owned the "Forest Rose" and "High Low Jack" and other mines. In 1868 he came to Nevada, and was engaged in business at Elko for some time, and in 1871 made his first appearance in Prescott, Arizona, making the journey from Los Angeles in a buck-board. On arriving here he became a member of the firm of C. P. Head & Company, and was engaged in general merchandising with this firm until 1876, when he sold out his interest to the firm and went back to California. A few years later he returned to Prescott and went from there to Phoenix, where he became a member of the firm of Goldman & Company, with whom he remained for six years, engaged in the wholesale liquor business. He was unusually successful in this, but in 1890 he returned to Prescott, where he opened a wholesale liquor house, and this he has conducted with the best of results up to the present time. Mr.

Marks has been a member of the city council and treasurer of the Territory Insane Asylum, having been appointed to the latter position under Governor C. M. Zulick. Our subject may justly be termed a pioneer settler of Arizona and can relate some interesting and amusing incidents of those early days. He is interested in mining to some extent and owns a beautiful residence in Prescott, which is presided over by his most estimable wife, formerly Miss Pooler, a native of Michigan, whom he married in 1868. In politics he is a Democrat and takes a decided interest in the welfare of his party. When General Crook was appointed brevet lieutenant of Fourth infantry at Ft. Jones, Mr. Marks was with him at Pitt River Indian War, and built Ft. Crook in Pitt River Valley and Ft. Terrawa, opposite Crescent City.

He is exalted ruler of Prescott Lodge No. 330, Order of B. P. O. E., also president of the Prescott Gun Club.

HON. REESE M. LING. The younger Pitt, had his lot been cast in the United States in this day and generation, would not have found it necessary to defend himself against the "atrocious crime of being a young man," as charged against him because of his precocious mental development. In this republic there is no prejudice against a man merely because he chances to develop in advance of the conventional idea as to time of maturity, but on the contrary it is more likely that the fact will be used as a cause for rewarding his ability by promoting him to places of honor and trust. The subject of this sketch, Hon. Reese M. Ling of Prescott is a young man who has demonstrated over and over again that the wisdom of age rests upon his shoulders and the judgment of tried experience guides his actions, yet so far from this being a bar to his advancement, his friends point to the fact with pride and as convincing proof that man ought to be weighed by his capacity and not by the duration of his days upon earth. Mr. Ling was born in Holmes County, Ohio, May 16th, 1868, a son of Martin and Mary (Reese) Ling, natives of the Buckeye State and of Dutch and Welsh stock respectively. Martin Ling was a farmer, and lived and died in Holmes County, Ohio. In the time of our country's peril and when Lincoln

had issued his first call for volunteers, Mr. Ling at once responded, and became a member of the 16th Ohio Volunteer Infantry, with which he served until Lee's surrender. He was wounded at the battle of Ball's Bluff, was captured and confined in Libby Prison for eighteen months, at which time he was exchanged. He suffered all the hardships and privations incident to Southern prison life and while thus incarcerated contracted measles, which eventually resulted in his death at his old Ohio home. His widow still survives him and resides in Prescott. To this worthy couple only one child was given, the subject of this sketch, who was reared in Stark County, Ohio, and became an attendant of the High School of Massillon. He afterwards entered the State University at Columbus, Ohio, at the unusual age of fourteen years, and was the youngest student in that institution. He attended the University for three years, then (in 1885) came to Arizona Territory and entered the Normal School at Tempe, immediately after it had been founded, and from this institution of learning he was graduated in twenty-two weeks, at the same time discharging the duties of instructor in mathematics and Latin. Soon after graduating he returned to Prescott, for two terms was engaged in teaching school, and still holds a life diploma as a teacher. At the time he was teaching "Young America" he also pursued his legal studies, and in order to still further perfect himself in this science, he entered the Law Department of the University of Michigan, at Ann Arbor, and was graduated from the same in 1890. He was chosen by his class, numbering two hundred and eighty, as consulator or valedictorian, being elected over the only woman in the class, who was his opponent. He was admitted in open examination and alone, to practice before the Supreme Court of the State of Michigan, soon after which he opened an office at 225 Dearborn street, Chicago, where he remained for about three months, but finding the climate too severe, he returned to Prescott, of which city he has since been one of the most successful legal practitioners. He has been actively interested in politics and has held the office of city auditor four years, and has been a member of the Territorial Central Committee a like length of time. He has been present at every Democratic con-

vention for the past six years, and was at one time nominated for the office of prosecuting attorney, but was defeated. Young as he is, Mr. Ling wields a wide influence both socially and professionally, and is a forcible, logical and convincing speaker. He is a member of the firm of Ling & Andrews, who have built up an extensive practice, and they are the attorneys for several mining corporations. Mr. Ling is one of the owners of the "Big Bug" onyx mine and he is the owner of the "Trade Mark" gold mine. Failure is a word that has never appeared in Mr. Ling's book of life, and success has tended but to brighten his wits and to stimulate his brain to greater energy. The remarkable grasp which he has of his profession and his success in its practice, clearly show that he is but fairly started upon his career, and that much better and greater things await him. He was a member of the Railroad Commission for three years, and socially is a member of the I. O. O. F., A. O. U. W., Order of Elks and the K. of P. lodges, being Chancellor Commander of the latter order. In 1888 Mr. Ling led to the altar Miss Nellie Osenburg, a native of Kansas, by whom he has had three promising sons, David, Harry and Perry.

HON. HENRY T. ANDREWS. Men do not choose professions under accidental circumstances, or if they do, their names almost invariably become enrolled on the list of lamentable failures. In writing the biographies of the "successes" in the different avocations, we write for future as well as for present readers; and they will ask "Why successful and how?" In answering this question it is but necessary to tell something of the career of Hon. Henry T. Andrews, who was born in McHenry County, Ill., December 10, 1841. His parents, George and Cordelia (Allen) Andrews, were natives of Massachusetts and Ohio respectively. In the year 1836 the father moved to McHenry County, Ill., and has followed farming there ever since. Of the three children born to his marriage two survive at the present time, our subject and Allen. The former was reared on his father's farm and secured a good practical education in the district school. On the 22d of April, 1861, when twenty years old, he enlisted at Bloomington, Ill., in Company C, Twentieth Illinois Volunteer Infantry, and served

four years, three months and sixteen days. Enlisting as a private he was soon promoted to the rank of first lieutenant, and participated in the following battles: Fredericktown, Ft. Donnellson, Shiloh, Britton's Lane and Raymond, where the regiment lost many men. Later he participated in the battle of Champion Hill, Siege of Vicksburg, Clinton, Chunky Bridge, Savannah, Pocataligo, Orangeburg, Falling Water, and was with Sherman in his march to the sea. He was captured at Britton's Lane and paroled. Mr. Andrews fought most gallantly for the old flag and was a brave and faithful soldier. Upon cessation of hostilities he returned to Illinois and for some time resided in McLean County. From there he moved to Johnson County, Mo., and was there engaged in farming and dealing in live stock. Later he read law with A. M. Gear and was admitted to the bar at Warrensburg, Mo. Following this he located at Knobnoster, Johnson County, Mo., where he served about one year as mayor, resigning that position to go West. In 1872 he started West and went through Texas, Indian Territory, Colorado and New Mexico, arriving at Prescott, Arizona, in July, 1875. He was engaged in prospecting and mining for eleven years, and in 1886 was elected by the miners a member of the Territorial Legislature and served one term. He was then appointed Territorial Auditor, but resigned the following summer, and served as United States Deputy Revenue Collector for nearly three years. After this he served as Justice of the Peace and Secretary of Territorial Board of Equalization. In 1894 he associated with Hon. R. M. Ling and opened a law office, and since that time has been actively engaged in the duties of his profession. Mr. Andrews is chairman of the Democratic Central Committee and a member of the Territorial Committee. He is the present city attorney and is one of the sound, substantial and popular men of the county. A staunch Democrat in politics he has ever taken a deep interest in the welfare of his party, and while a resident of Missouri was a delegate to the State Convention that nominated B. Gratz Brown to the governorship. He was also a delegate to the Cincinnati Convention that nominated Horace Greeley. Mr. Andrews is now United States Court Commissioner for the Fourth Judicial District, Territory of Arizona. Socially

he is a member of the Knights of Pythias organization. For some time he has been interested in mining. On the 11th of December, 1894, he was married to Miss Luella Hundley, and they have one child, Lelle. Mrs. Andrews was born in Marion, Williams County, Illinois. She is an earnest member of the Presbyterian Church.

I. M. CHRISTY. Prominent in the circle of Phoenix's financially sound and thoroughly respected citizens, and identified with those projects which are wholly within the sharply defined lines of honest motive, is the well known name of I. M. Christy, who is now the capable secretary of the Arizona Improvement Company. Like other representative citizens of Phoenix Mr. Christy was born in Trumbull County, Ohio. His birth occurred April 18, 1844, and he is a son of George L. and Jane (Marshal) Christy. When ten years old young Christy came West with his parents and settled in Clark County, Iowa, where he assisted his father on the farm and attended the country schools. He also took a business course in Bryant, Stratton & Christy Business College, at Burlington, Iowa, and although only seventeen years old when Civil War broke out, he shouldered his musket with others and enlisted in Company I, 15th Iowa Infantry. He remained in active service until the war closed. He was with his regiment in all its engagements, had many narrow escapes, and now carries the scars of many bullet wounds on his person. He was in the bloody battle of Shiloh, Siege of Corinth, also the second battle of Corinth, Siege of Vicksburg, Atlanta campaign and the March to the Sea. He was also around Washington for some time. After being mustered out at Louisville, Ky., Mr. Christy returned home and attended school for six months. After this he was in a bank at Osceola, Iowa, for eighteen months, and later went to Burlington, Iowa, where he became cashier and book-keeper for a wholesale hardware house, a position he held for twenty years. On the 1st of January, 1891, he arrived at Phoenix, Arizona, and accepted his present position. He is also secretary of Arizona Canal Company; Grand Canal Company; Maricopa Canal Company; Salt River Valley Canal Company; Water Power Canal Company; New England Land Company and Orange Land Company. Mr.

Christy was elected City Treasurer of Phoenix in 1894 and re-elected in 1895. He is a member of the A. F. & A. M., the I. O. O. F. and the G. A. R. His happy domestic life began in 1871 when he married Miss Louise A. Bennett, a native of New York State. They have three children, Charles B., Catherine and Fred C. All are members of the Methodist Church.

JAMES A. FLEMING. It is a fact that cannot be truthfully contradicted, that in the land lies one of the foremost essential instruments of trade investment and profit. The great West has opened up opportunities in this direction that are matchless when compared with any other section of the country, and Phoenix, Arizona, is the teeming center of this golden chance. Prominent among the real estate owners and bankers of that flourishing city may be mentioned the name of James A. Fleming, whose reputation for veracity and fair dealing is unsurpassed by any engaged in his line of business. Mr. Fleming was born in Indiana County, Pennsylvania, in 1849, and his education was received in the common schools. When but sixteen years old he embarked in the petroleum oil business at Oil City, Oil Creek and Pit Hole, and was thus engaged until about 1879, when he removed to Denver, Colorado, and engaged in mining and investments in real estate. Mr. Fleming was prominently identified with the growth of that flourishing city from the time of his residence, laid out the town of South Denver and was elected the first mayor of the town, serving four years in that capacity. He was the promoter of the first cable line in Denver; one of the committee of public improvements and public institutions of the Chamber of Commerce; member of the Mining Exchange, and one of the organizers and head pushers in erecting the Exchange Building. Mr. Fleming is the owner of Fleming's Grove, a beautiful suburb of Denver, as well as the Mendota Building, one of the finest blocks in the center of that city. He organized the Phoenix National Bank, was president of that financial institution and has used his energy and capital to develop the Salt River Valley with the same spirit he built up Denver.

He was appointed territorial treasurer by Governor Hughes, but after serving one year resigned the office in order that he could more fully de-

vote his time to private matters. While he was one of the foremost to build the city of Denver into its present magnificent proportions, he has been no less active and instrumental in the development of and prosperity of the Salt River Valley and the city of Phoenix. The "Fleming Block," the handsomest of the many beautiful business buildings of Phoenix, was erected by him, and is a four-story and basement brick structure equipped with passenger elevator and other modern improvements. It was also through his influence to a considerable extent, as a man of large means, that great wealth was brought into the Territory and invested in the different avenues of trade, the ultimate result being the development and prosperity of the country.

Mr. Fleming is of Scotch ancestry, his forefathers coming to this country before the Colonies had secured their independence from Great Britain. Members of the family participated in the Revolutionary War, and settled at Philadelphia when it was first laid out. Unquestionably, the family was of the nobility of Scotland, the walls of Fleming Castle yet standing near Dundee; but of this James A. Fleming cares nothing, being a firm believer with Burns that

"A man's a man for a' that."

His great-grandmother was a Morton and a near relative of John Morton, one of the signers of the Declaration of Independence.

C. M. STURGES. One of the best known, most deservedly popular and liberally patronized livery and feed stables in Phoenix, Arizona, is the "Golden Eagle," owned and conducted in a most successful manner by C. M. Sturges, one of the foremost business men of that place. He is a native of St. Louis, Missouri, born November 19, 1864, and the son of John A. Sturges, who was one of the most successful wholesale commission merchants of that place, having been in business there for thirty years. C. M. Sturges was educated in his native city and in Drury College, at Springfield, Missouri. After leaving school he was with "The Famous," one of the largest gent's furnishing houses in St. Louis. Later he came to Arizona and took charge of a ranch belonging to George H. Wilson. This was near Phoenix and he conducted it in a very satisfactory manner for one year. At that time he was tendered a position by Farley & Grant, grocers,

as clerk, and continued with them for four years and two months. Following this he was with Henry E. Kemp & Company for eight months, after which he started out in business for himself. He purchased the livery business of J. L. Gant, the old Lemon Hotel stables, and on taking possession he changed the name to "Golden Eagle." He carried on a successful business at the old stand, back of the Lemon Hotel, for three years and a half, and then erected his stables on the present site. These are the largest and the finest in the Territory and are the result of Mr. Sturges' energy and perseverance. On the 16th of November, 1894, Mr. Sturges was married to Miss Clara E. Mitchener of Oakland, California, an accomplished and educated lady and a fine musician, having been a singer in the churches of Oakland for some time.

E. J. F. HORNE. He whose name heads this sketch is one of the trusted servants of Uncle Sam, for he has held the position of postmaster at Prescott since 1894, being appointed to the same by President Cleveland. He is a product of California, born in Siskiyou County November 2, 1857, and the son of Lewis Horne, who was born in Germany and who came to this country in his youth. The latter was a successful hotel man and confectioner, and after residing for some time in Cincinnati, Ohio, went south to New Orleans, where he resided for some time. Later he drifted West, this being in the pioneer days, and reached San Francisco, Cal., in 1854, going by way of the Isthmus. From there he subsequently moved to Yreka, Cal., and Jacksonville, Oregon, and then to Prescott, Arizona. This was in 1879, and there his death occurred in 1882. His wife passed away ten years later. Their marriage was blessed by the birth of four children. The youthful days of our subject were passed in Jacksonville, Oregon, where he secured a good practical education in the public schools. In the month of January, 1880, he arrived at Prescott, Arizona, and for a few years clerked in various places. If elections to positions of trust and honor are a criterion by which a man's popularity is gauged, then E. J. F. Horne enjoys to an unusual degree the esteem of his fellow-men. In the year 1886 he was elected county recorder and held that position in a most satisfactory manner for one term. He then served four years as

clerk of the Board of Supervisors and was journal clerk of the House of Representatives in the session of 1893. For one year he was in Wells, Fargo Express Company's office at Prescott. He was next appointed to his present position of postmaster of Prescott, which position he has filled most ably since. Mr. Horne came to Arizona a poor boy, but his perseverance, industry and other most estimable qualities soon became recognized and resulted in his advancement in every respect. After the death of his father he cared for his mother and was a most affectionate son. Mr. Horne has been identified with the Democratic party since old enough to vote and takes a deep interest in politics. In 1892 he was secretary of the County Central Committee. Socially and politically he is a general favorite with the masses and is a young man of much promise. He is yet single. In his religious views he is a devoted Catholic. Mr. Horne's brother, William J. D. Horne, is a first lieutenant in the Ninth United States Cavalry at Robinson, Neb. His sister, Mrs. E. Stahl, now resides in New York City.

EVERETT E. ELLINWOOD. Far more than average intelligence, a thorough education, an intimate knowledge of the technicalities of law and a decided liking for the arduous labors of the legal profession are necessary in order to become distinguished at the bar. These qualifications are embodied in Everett E. Ellinwood, the present most efficient United States attorney for Arizona Territory. He comes of a family that trace their ancestry back to the year 1720 to the Scotch-Irish people. He was born at Rock Creek, Ashtabula County, Ohio, July 22, 1862, to John P. and Cornelia (Sperry) Ellinwood, the former of whom was born in New York State and the latter in Ohio. John P. Ellinwood was a professor of mathematics in a Cincinnati educational institution for a number of years and later became superintendent of the public schools at Oil City, Pennsylvania, which position he filled with marked ability for a number of years. From Oil City he removed to Peoria, Ill., in 1876, and there he continued his pedagogic labors, but finally retired from the active duties of life and now resides at Rock Creek, Ohio. He became well and very favorably known as an educator through the Central States, and to his thorough methods

of instruction many of the rising professional and business men of to-day owe their success. He and his wife reared a family of three children, of whom the subject of this sketch is the youngest. He received his literary education in Knox College at Galesburg; Ill., and in 1885 he took up the study of law in the office of McKenzie & Calkins of Galesburg, and later with Rice & Rice of Peoria, being admitted to the bar at Springfield, Ill., June 19, 1889, before the Supreme Court. In the fall of that year he entered the law department of the University of Michigan at Ann Arbor, where he completed the two years' course in one year. After graduating in June, 1890, he spent a few months in Los Angeles, California, but August 17, 1890, arrived in Flagstaff, Arizona Territory. About six months later he formed a partnership with T. G. Norris, the firm taking the name of Norris & Ellinwood, and they were successfully and congenially associated in the practice of their profession until May 8, 1893, when Mr. Ellinwood was appointed United States attorney for Arizona Territory, when they dissolved partnership. Mr. Ellinwood has taken an active interest in politics since he has been a resident of Arizona. He was a delegate to the National Democratic convention of 1892 and was a member of the notification committee of the Cleveland and Stephenson nomination. Socially Mr. Ellinwood is a member of the I. O. O. F. and the K. of P. He was married November 17, 1886, to Miss Minnie Walkey, a native of Rock Creek, Ohio, by whom he has two interesting children, Cornelia and Ralph E.

HON. RICHARD E. SLOAN. He whose name heads this sketch has become prominent in the legal profession and is well known as one of the most talented attorneys in his section of the Territory. He is shrewd, experienced and keen-witted, and his labors for his clients are herculean. He also takes a deep interest in the political affairs of his section and has held a number of responsible positions. Mr. Sloan is a native of the Buckeye State, born in Preble County, June 22, 1857, and the son of Dr. Richard and Mary (Caldwell) Sloan, natives respectively of South Carolina and Ohio. The father was a graduate of the Ohio Medical College and practiced his profession in Preble County, Ohio, the most of his life. He was a prominent man in

his profession and was universally liked and respected. Of his five children, four are living at the present time: Joseph, in Nebraska; Nathan C., in Ohio; Mrs. Jennie E. Harris, who resides in Los Angeles, Cal., and is the wife of Dr. J. W. Harris. Richard E., our subject, the youngest of the family, grew to manhood in his native state and graduated at Monmouth College, Ill., in 1877. Later he was graduated from the Law College at Cincinnati, Ohio, but previous to this had spent two or three years in Colorado, where in connection with his law practice he was engaged in mining. In 1884 he came to Arizona and located in Phoenix, but later removed to Florence, Arizona, where he served two years as district attorney. In 1888 he was elected to the Territorial Council, and the following year was appointed associate judge of the Supreme Court by President Harrison, a position he filled most ably until June 1, 1894. In 1889 he moved to Tucson, where he resided during his term as judge. Soon afterward he removed to Prescott, where he has since been engaged in the practice of law. His official life was characterized by a desire to benefit his section, and he labored faithfully with that object in view, and success crowned his efforts in almost every instance. He is familiar with all branches of his profession, is a thoroughly posted, keen and far-seeing lawyer. On the 22d of November, 1887, Miss Mary Brown of Hamilton, Ohio, became his wife, and their union has been blessed by the birth of two children, Eleanor and Richard E., Jr. The Judge has taken an active part in political affairs all his life, and is a staunch supporter of Republican principles.

COL. ALEX. O. BRODIE. The profession of mining and civil engineering is one of great responsibility and at the same time a calling which requires the highest order of ability, coupled with long practical experience. One of the most popular and highly respected mining and civil engineers in the West is Col. Alex. O. Brodie, who is universally esteemed and widely known among his fraternity and he has always been prepared to promptly and efficiently execute all commissions with dispatch and credit to his recognized talent. He is a product of St. Lawrence County, New York, where he was born November 13, 1849, to Joseph and Mar-

garet (Brown) Brodie, the former of whom was born in Hamburg, Germany, and the latter in New York State. The father, a wealthy and influential citizen, became somewhat of a politician and held some local offices, but refused all high official honors. After a useful and well spent life he died in Knox County, Tennessee, in the fall of 1893, his wife having passed from life in 1878. A family of four children were born to them, but two of whom are now living: Col. Alex O. and Mrs. Anderson, of Knoxville, Tennessee. The early days of Col. Brodie were spent in St. Lawrence County, New York, and his early educational training was received in St. Lawrence University. In June, 1866, he entered West Point Military Academy, and from this well known institution was graduated in 1870, number twenty-seven in a class of fifty-eight. He then became second lieutenant of the First United States Cavalry and was stationed at Camp Apache, Arizona Territory, where he remained for about three years, during which time he was made quartermaster, adjutant, A. C. S. and Indian agent, and constructed the first post at that place. During the outbreak of the Indians in 1871, he took an active part and received special mention for gallant conduct. He was on Crook's campaign in the winter of 1872-3 and commanded two troops of cavalry and White Mountain Indian scouts. The campaign was quite an active one and as a result of success Crook was made brigadier-general. In 1873 Col. Brodie left Camp Apache and marched via Santa Fe to Pueblo, where he took train to Kelton, Utah, and from there marched with his forces to Walla Walla, Washington Territory, where he was stationed a little over one year. He was regimental adjutant of the First Cavalry for nine months, after which he was on leave-of-absence for about one year, during which time he was promoted to first lieutenant (in 1875) and returned to Washington Territory. During 1876 and a part of 1877 he was stationed at Fort Colville, but in June of the latter year he sent in his resignation and applied for leave-of-absence, but very shortly after the Nez Percés went on the war path and at his request his resignation was withheld and he was ordered to the front. His service was confined mostly to Idaho and Washington. After hostilities ceased he tendered his resignation which

took effect September 30, 1877. He then spent one year in the East, and after his mother's death he removed to Greenwood County, Kansas, and engaged in the cattle business and remained thus employed for four years. He then went to Dakota, but at the end of one year returned to Arizona Territory in 1883, and after one year spent in various parts of the Territory, he settled down in Prescott, where he has since resided. He was assistant engineer of the Walnut Grove Water Storage Company in 1888-9, was on the United States Irrigation survey in June and July, 1889, and was chief engineer of the Walnut Grove Storage Company in September, 1889, and held the last mentioned position until the works of the company were destroyed by a flood February 22d, 1890. He still holds his former position, and in addition has been made receiver. He is a member of the Technical Society of the Pacific Coast, and is a member of the Association of Graduates of the Military Academy. He owns considerable mining interests on Castle Creek, and besides looking after these interests he is manager of the Piedmont Cattle Company. He was colonel of the First Regiment of National Guards of Arizona from its organization until his resignation was accepted about one year later, his appointment to this position being made by Governor Irwin. He has become well known in political circles in Yavapai County, and from January, 1893, to January, 1895, held the position of county recorder, to which position he was elected by his numerous Republican friends. On May 26th, 1876, he was united in marriage with Miss Kate Reynolds, of Walla Walla, Washington, whose death occurred March 25, 1877, leaving a daughter, who died at Walla Walla July 25, 1877, and on December 15, 1892, Col. Brodie wedded Miss Mary L. Hanlon, of Brooklyn, N. Y., by whom he has one son, Alexander O., Jr., born September 18th, 1894. Col. Brodie's walk through life has been strictly honorable, and while serving in the Regular Army of the United States was a brave and faithful officer, who was at all times to be depended on to discharge his duties to the best of his ability. While with Gen. Crook he was mentioned for faithful service in general orders and recommended for brevet. The Colonel is a member of the Society of Arizona Pioneers.

DR. A. J. CHANDLER. The name of Chandler is well and favorably known in this part of Arizona, for it has been intimately associated with the building up and development of this section, and is the synonym of honest industry and business integrity. Dr. A. J. Chandler, who is now president and general manager of the Consolidated Canal Company, with offices at Phoenix and Mesa, is a native of Canada, born near Coaticook, Province of Quebec, Canada, July 15, 1859. The father, Joseph Chandler, was a Baptist minister, and preached the gospel most of his life. He died in May, 1895. He married Miss Mary A. Lorimer and to them were born seven children, five of whom survive at the present time. Dr. A. J. Chandler, the fifth in order of birth, was educated in the high school of his native town and finished his course of studies at McGill University at Montreal and the Montreal Veterinary College, graduating in the year 1892 with the highest honors. Immediately after graduating, he was appointed live stock inspector for the Dominion government, which position he soon resigned to engage actively in the practice of veterinary medicine in Detroit, Michigan. Here he soon built up a most lucrative practice, gaining a reputation as one of the most expert veterinarians not only in the state of Michigan, but in adjoining states, where he was often called in consultation. In 1887 he was offered the position of veterinary surgeon for the Territory of Arizona, and after much hesitancy accepted, being appointed to the position by Governor Zulick. The appointment was not the controlling feature that turned him to the far West, although he at all times attended strictly to his official duties and served the public well, but the opportunities that might present themselves to a young man in a rapidly growing Western country outside of a professional career. He was not long in seizing upon such an opportunity. For almost immediately upon his arrival in the Territory he became interested in irrigation, and has succeeded in building one of the largest and finest canal systems in the Southwest. He organized the Consolidated Canal Company in 1892, having associated with him some of Detroit's best and most substantial citizens, and has since been its president and general manager. Apart from this canal enterprise, the doctor has taken great interest in the development of irri-

gation, for by it he believes that Arizona is yet to be one of the greatest states in the Union. In his political views the doctor is a Republican, although he has never taken a very active part in politics. He retained his official position during the various administrations till 1893, when he resigned, his business interests demanding his full attention. He was married in 1890 to Miss Julia Pope, the only daughter of Judge J. D. Pope of St. Louis, Mo.

HON. SILAS P. BEHAN. This gentleman comes of an old pioneer family of Missouri, his father, Peter Behan, being one of the earliest settlers of Jackson County, that state. The elder Behan was of Irish origin, and was industrious, enterprising and a man universally respected. For many years he was engaged in freighting on the plains, and met his death by being thrown from a horse. He married Miss Sarah Harris, a native of Simpson County, Kentucky, who came to Missouri when a young lady. She inherited sturdy Scotch blood, her ancestors leaving that country for America at the time of the downfall of the Stuarts. Her parents first settled in Virginia, but later made their way to Kentucky, and thence to Missouri. To Mr. and Mrs. Behan were born several children, our subject's birth occurring at Westport, Jackson County, Missouri, January 16, 1850. He attended the common schools of Westport during his youth and subsequently began clerking in the postoffice and stores of that town. When twenty-two years old he made his way to Arizona and settled at Prescott, this being the only remedy for the western fever that had assailed him, and in 1865 he crossed the plains to New Mexico with his father. The same year he went back to Missouri, but in 1867 he again returned to New Mexico, freighting, and received forty dollars per month. In 1867 he again returned to his native state and was in the schools there until 1870 and later clerked in the postoffice until 1871. Leaving the home place he went to St. Louis as collector for a live stock commission house, and later, in 1873, he made his way to Prescott, where he had a brother living. He and his brother then began freighting and contracting for the Government in hay and grain, and was thus occupied until 1875. Later Silas was in a store at Fort Apache and remained there until 1878, when he located

on Salt River. There he remained until March, 1879, when he returned to Prescott and was made deputy sheriff under J. R. Walker, which position he filled until January, 1880. After that he was on the large stock farm of C. P. Head as chief clerk, and remained with him until the latter closed business. Mr. Behan then bought stock and was engaged in the cattle business until the spring of 1895, handling a large number, often as many as 5,000 head. Previous to this, in 1876, he was elected county commissioner of Yavapai County, and in 1892 he served in the 17th Legislature from that county. In 1891 he was appointed by Governor Irwin as World's Fair Commissioner, and was president of the board, attending the fair in that capacity. In 1894 he was made assistant live stock agent under Lewelling, on the Santa Fe, and in March, 1895, assumed the duties of that position. His object in accepting the nomination to the Legislature was to get the exemption bill through that the railroad might become exempt from taxation for twenty years. In February, 1895, Mr. Behan was appointed Live Stock Sanitary Commissioner. He was married in 1882, March 29th, to Miss Lillie Eugene Jones, a native of Dwight, Illinois, and they have one child, Hugo, who was born April 21, 1883. Socially Mr. Behan is a member of Lodge No. 1, I. O. O. F., also A. O. U. W. of Prescott, and the Woodmen of the World.

ROBERT HENRY WOOLF. The above mentioned gentleman is one of the thoroughgoing and progressive business men of Maricopa County, where he has resided for many years, and where his interests are centered. He comes of an old and prominent Kentucky family, his ancestors for several generations having resided there, and was born in Crittenden County of that state, himself, October 23, 1853. He was reared on a farm and there learned habits of industry and economy which have remained with him through life. His father, William Henry Woolf, was born in Caldwell County, Ky., and the mother, Matilda Baker, was also a native of that state. Robert H. Woolf left his native state when twenty-two years old and went to Trinidad, Colorado, where he engaged in the cattle business on his own account for a short time. He had about \$800 when he left the parental roof and a fair common school education, and these, combined

with his pluck and energy, were the stepping stones to his subsequent success. From Colorado he went to New Mexico, remained there two years and drove cattle to Texas, in the Panhandle, the head waters of Red River. From there he drove 200 head to Arizona, was four months on the road, and located near Wilcox, where for five years he was engaged in the stock business. Selling out, he returned to Kentucky, where he was married December 10, 1885, to Miss Charlotte Miller, a native of that state. Later he went to California and spent one year at Pomona, where he was engaged in orange raising. Selling out, he next located on a quarter section of land three miles northeast of Phoenix, Arizona, where he remained one year. Again he sold out, and bought where he now lives, two miles northeast of Phoenix, twenty acres of land. He is now engaged in raising horses and cattle, but has other interests and is a shrewd, progressive man of affairs. He owns one block in Churchill's addition, a business lot on Washington street, and about sixty acres out about three miles and a quarter, on Centre street. During his early life, when first starting out for himself, he experienced many hardships while driving his cattle to the different markets and can relate many interesting experiences. Socially he is a member of the Woodmen of the World, Odd Fellows, and politically a Democrat, but does not aspire for political positions. To his marriage were born these children: Frederick Miller, Robert Eugene, Roy and Ethel Nora.

WILLIAM N. KELLY. Pioneer and representative business men of Prescott, Arizona, are yearly becoming scarcer and it is rarely that such an honorable record is found as that attached to the business career of William N. Kelly, merchant, who has been a resident of the city since the year 1865. Mr. Kelly is a native of the Old Bay State, born in Beverly, October 18, 1835, and is a son of Moses and Hannah (Needham) Kelly, natives respectively of New Hampshire and Massachusetts. On the mother's side the family is closely related to Governor Endicott, who was one of the first governors of Massachusetts. The father of our subject was a successful business man and passed the closing scenes of his life in Massachusetts. William N. Kelly, the third in order of birth of eleven children born to his par-

ents, was educated in the public schools of Massachusetts, and at an early age embarked in merchandising as a clerk. Later he was engaged in the same occupation in Boston, Mass., and then opened a general store at Lynn, Mass. In 1858 he came West and located in Forest City, California, but soon after went from there to Eureka and later to Nevada County of that state, where he was engaged in hydraulic mining for some time. In the year 1865 he made his way on horseback to Prescott, a distance of about one thousand miles. He came with four other men, and they were compelled to take every precaution on their journey, as the Indians at that time were very hostile. They carried their provisions on horseback with them and managed to get along with very little trouble. At this time there were only about one hundred and fifty people in Prescott, and Mr. Kelly, seeing the need of a butcher shop in the place, immediately started out in that business, buying his cattle for the most part from South Arizona and New Mexico. In the spring of 1868 Mr. Kelly went back to California and brought back with him a train load of goods from San Pedro, paying \$300 per ton freight. On his return from California he was accompanied by the brothers D. and A. Henderson, and they subsequently opened a general store under the firm name of D. Henderson & Company, which continued for three years. Mr. Kelly then sold out and was engaged in the butcher's business for two years, but times being hard, he closed out his business and was engaged in prospecting and mining for a couple of years. This way he became the owner of some good property. After that he began clerking for his old partners in Prescott and in about 1876 he opened a store under the firm name of Kelly & Stephens, and has been actively and successfully engaged in merchandising ever since. Mr. Kelly was mayor of Prescott for five years and register of United States Land Office for nine and a half years. At the present time he is the receiver of the Prescott & Arizona Central Railroad Company. Mr. Kelly is a Knight Templar in the Masonic fraternity and one of the city's most prominent men. He has witnessed the development and growth of Arizona and has contributed his share toward its improvement. In the year 1868 he was married to Miss Martina Stephens, a native of Missouri and daughter of Varney A. Stephens. Po-

litically Mr. Kelly is a Republican on national affairs, but votes for the best men in local affairs. He is a man well liked by all and is a representative citizen.

LUTHER J. WOOD. The name of Wood is one that is well known in Maricopa County, Arizona Territory, and he is one of the most highly respected citizens of Phoenix, where his home has been since coming thither. This gentleman is possessed of that independent spirit, that enterprise, push and energy necessary for a successful business career, and his life has been a useful and prosperous one, in direct refutation of the saying that "a rolling stone gathers no moss." He is a product of Viola, Linn County, Iowa, where he first saw the light February 26, 1866, a son of John W. and Almeda (Crew) Wood, who originally came from Boonesville, Ohio. In the state of his birth the father was engaged in merchandising, but after his removal to Iowa he turned his attention to farming. Luther J. Wood became familiar with the duties of farm life, but at the same time he was acquiring a practical education in the Friends' Select School at Viola, of which religious body his parents were members. He finished his literary education in the Friends' Academy at Le Grande, Iowa, after which he returned to his home and during 1884-5 was principal of the public schools of Stone City, Iowa. He then went to Iowa City and took a commercial course, which included short-hand, and in the spring of 1887 became principal of the Capital City Short-Hand School, Des Moines, a position he continued to fill until failing health caused him to seek other occupation. After traveling for one year and learning telegraphy, he was the operator for six months on the Northwestern Railroad at Sturges, Dakota, or rather on a branch of that road called the Fremont, Elkhorn & Missouri Valley Railroad. On the 2d of February, 1889, he came with a sister to Phoenix, Arizona Territory, in order to better his continued poor health, and soon after was elected by the Fifteenth Legislative Assembly as stenographer and journal clerk. His next employment was in the District Court clerk's office, after which he entered the abstract, loan and insurance business and continued thus occupied until his election, May 7, 1894, to the office of city assessor. On his re-election in May, 1895, he received a ma-

majority of 251 votes, this being the largest ever cast for any candidate for any office in the city. From the fall of 1890 to the fall of 1894 he was secretary of the Republican Central Committee for the county and at the same time served as secretary of the City Republican Central Committee, also the Harrison League Club and the Territorial League Club. He has been for two years secretary of the Territorial Silver League Club as well. He helped organize the Phoenix Building and Loan Association in 1891-2, and in the fall of 1891 took a special agency for the Mutual Life Insurance Company of New York and settled all claims in the Territory. He was appointed a commissioner of the World's Fair by Gov. N. O. Murphy, and was for two years secretary of the Chamber of Commerce, during 1891-2. It will thus be readily seen that Mr. Wood is public spirited and active to a degree and his ability as a man of affairs is recognized by all who come in contact with him. He was married August 7, 1894, to Miss May G. McElwain, a native of Nevada, and one child has been born to them, Walter Oakes. Mr. Wood has a pretty and comfortable home, and he and his wife are well known for their free-hearted hospitality. Politically he has ever been a staunch Republican and always works for the success of that party. Socially he is Guide in the A. O. U. W., is Escort in the Woodmen of the World, and is Senator in the K. of P. Lodge No. 2, of Phoenix. He has followed in the footsteps of his ancestors and is a member of the Society of Friends. He belongs to the Elks at Phoenix.

THE HOTEL BURKE. The poet who found "his warmest welcome at an inn" must have had in mind one of those hostelries in which the conveniences of a home are forever present without the disagreeable and exacting duties that make home life domestic slavery. Such a house is that of the Hotel Burke, a family hotel, in which the proprietors and owners, D. A. Burke and M. J. Hickey, are widely experienced and recognized authority in the difficult art of modern hotel keeping. The hotel was built in 1880 and is 50x125 feet, four stories and a basement and has stone trimming, mansard roof, etc., and was built at a cost of \$40,000. This fine building is located on the corner of Montezuma and Gourley streets, Prescott, Arizona, and is lighted throughout with

electricity. It has electric call bells, and the rooms, large and commodious, are nicely furnished. This is one of the most modern as well as one of the most popular and well managed hotels in the Territory. Last, but not least, a bountifully supplied and recherche table is kept and all the delicacies that can possibly be obtained are served in liberal abundance. M. J. Hickey, one of the genial proprietors, is a native of County Clare, Ireland, born December 27, 1853, and the son of Patrick and Mary (O'Hallahan) Hickey. The parents came to this country at an early date and located in New York, which city they left when the Civil War broke out. The mother returned to her native country, but the father remained here and enlisted in the Sixty-ninth New York Volunteers, being one of the few of that regiment who returned alive. He is now living in McKeesport, Pa., but his wife died in Ireland. They were the parents of eight children, seven of whom are now living, and named as follows: Kate, Stephen, John, who was drowned; Bridget, Hugh, James, Michael J. and Mary. Michael J., our subject, received limited educational advantages in his native country, and when but twelve years old decided to cross the ocean to America. He reached this country a poor boy with no friendly face to greet him, and for some time resided in the city of New York. Later he went to Boston, found employment in the National Tube Works there, and made his home in that city for four years. He received a small salary and managed to live on that and save a few dollars. Thinking that he could better his condition, he went to Allegheny County, Pa., in 1868, and worked in the McKeesport Tube Works one year. This was a branch of the same concern he had worked for in Boston. Later Mr. Hickey was seized with the Western fever, like hundreds of others, and made his way to California, where, although a young tenderfoot, he engaged in prospecting, and also followed the same occupation throughout the West. He was thus engaged for about twelve years, and has experiences during that period which would fill a good sized volume. He came to Arizona in 1879 and first located at Tombstone, where he worked in the Grand Silver Mine for one year. From there he went to Tiptop, was engaged in prospecting for two years, and the two years following were spent in mining.

In 1883 he came to Prescott, spent some time in prospecting in the hills and mountains of Yavapai County, and became quite popular as a genial, whole-souled man. In 1882 he was made deputy sheriff under Jake Hinkle, Mulvenon and W. O. O'Neill. While serving in this capacity, he made a record for bravery and fearlessness in the discharge of his duties, being active in the capture of the noted desperado, D. W. Dilda, who was hung in Prescott February 5, 1886. This man killed Deputy Sheriff Murphy while being taken and was a desperate character. Mr. Hickey also assisted in the capture of Sisto Lucero, a Mexican desperado, and in whose capture there was a long and fierce struggle between Lucero and our subject. Mr. Hickey captured him alive and thus showed his kindness of heart and fearlessness, for he could have saved himself a desperate struggle had he shot the villain. Mr. Hickey has had other exploits equally as exciting, and in every one he has displayed remarkable nerve and fearlessness. He is a liberal-hearted, public-spirited citizen, who has great hopes of Arizona's future and who contributes liberally of his means to all worthy enterprises. He is a favorite with all and has a host of warm friends. On Thanksgiving Day, November, 1887, he was married to Miss Catharine Wall, a native of Canada, and they have two bright little children, Mary J. and Catharine.

DR. E. W. DUTCHER. The man who rises to an enviable place in the medical profession rises by his own individuality, and is never pushed up on the wave of a growing and general movement, like the rising tide of commerce—often the success of the merchant is but a part of the success of the branch in which he has invested, and is referable only slightly to his individual efforts. The physician's advancement to prominence is more often the just reward of personal merit and professional learning, efficiency and success. This thought has been suggested by a brief consideration of the professional career of Dr. E. W. Dutcher, who may be regarded as a representative, both worthy and conspicuous, of the better element in this profession of self-made men. He was born in Cooperstown, New York, April 3, 1848, a son of Peter and Desiah (Parshall) Dutcher, who were also born in the Empire State, but were of Holland Dutch descent.

The father was a successful tiller of the soil and in the management of his estate was thrifty and painstaking, as are the majority of those of his nationality. To him and his wife a family of eight children were given, but six of whom are living at the present time, of whom the Doctor is the youngest. He was reared in Cooperstown, received his literary education in Hartwick Seminary and began the study of medicine with Dr. George Merritt of Cherry Valley, New York. After thorough preparation he entered Albany Medical College, and was graduated from that institution in December, 1870, after which he at once entered upon the practice of his profession at Sidney Plains, New York, where he was engaged in healing the pains and ailments to which the human family is heir for about three years. He then went to Nineveh, New York, and after a residence there of six years he resided for a like period in Allegany, New York. At about this period he decided to make his home in the West, and in 1886 took up his residence in Tulare, California, but since June, 1892, his home has been in Prescott, Arizona. It was but a short time before his professional ability became recognized and he entered upon a successful and active professional career, his labors in behalf of suffering humanity meeting with satisfactory results. He stands high in the profession and is a member of the Arizona Medical Society, and socially belongs to the Masonic fraternity. Dr. Dutcher is a man of family, and in 1878 was united in marriage with Miss Ida A. Smith, a native of Broome County, New York, who has borne him two bright and interesting children, Egbert K. and Emma I. Mrs. Dutcher is a member of the Episcopal Church and an intelligent and amiable woman. Politically, the Doctor has always supported the principles of the Democratic party.

HON. R. C. POWERS. The American product, man, is the finest type upon the face of the earth, for the reason that he is not pampered and spoiled by luxury and for the further reason that he knows he may aspire to any height without prejudice against him as to birth or previous condition. While the subject of this sketch received excellent educational advantages in his youth, he has practically made his own way in the world, and his present substantial position in the business world is due to his own efforts.

He was born in Trumbull County, Ohio, December 24, 1836, a son of Milo and Lucy A. (Dickenson) Powers. The ancestors were early settlers of New England and Pennsylvania, and fought bravely and well for American independence in the Revolutionary War. This independent spirit also asserted itself in the War of 1812, for in that struggle both grandfathers were participants, and Samuel Dickenson held the rank of lieutenant. The male members of both the Powers and Dickenson families were sturdy and prosperous tillers of the soil as a general thing, but there were exceptions to this rule. Both grandfathers died in Trumbull County, Ohio, of which region they were pioneers, and here they found their greatest field of usefulness, for the country was inhabited by Indians and wild beasts and was in a wild and unsettled condition. They assisted in bringing about a changed condition of affairs, drove the red man from his haunts, captured and killed many wild animals, cleared and cultivated and improved the soil, made roads by blazing trees, built bridges, in fact, assisted in all work incident to pioneer life. Milo Powers followed in his ancestors' footsteps and became a tiller of the soil. While in Noxubee County, Mississippi, his death occurred, but his widow still survives him. Of a family of seven children born to them, three survive: Mrs. James McKee of New Orleans, whose husband is clerk in the United States Court of Appeals; Mrs. C. W. Loomis of Cleveland, Ohio, and Ridgely C., the immediate subject of this biography. In the county that gave him birth his youthful days were spent, and there he received far more liberal educational advantages than the average boy of his day. At the age of twenty-one he entered the University of Michigan at Ann Arbor, where he completed a course, after which, in June, 1862, he was graduated from Union College, Schenectady, New York. He had long been imbued with the patriotic spirit that had influenced his ancestors at Bunker's Hill and Lundy's Lane, and immediately after his graduation he enlisted in Company C, 125th Ohio Volunteer Infantry, with which he served until the close of the war, being mostly on detached duty. He was captain and assistant adjutant general the greater part of the last year of his service, to which position he attained through force of pluck and native ability. He was brev-

eted major and lieutenant-colonel for gallant conduct during the Atlanta campaign, and his entire military career was characterized by a marked fidelity to duty and by the utmost courage on all occasions. He was in all the most important engagements in which his regiment participated and in the battle of Jonesboro was slightly wounded. In December, 1865, immediately after being mustered out of the service at New Orleans, he located in Noxubee County, Miss., where he purchased a cotton plantation and followed planting for fifteen years. He became prominent in that locality, was in favor of reconstruction, and in 1869 was elected lieutenant-governor of Mississippi on that ticket, with J. L. Alcorn, who two years later was elected United States Senator, at the end of which time Mr. Powers became Governor and filled the position with marked ability from 1872 to 1874. He continued his planting operations, however, up to 1879, when he came to Arizona and located at Prescott, in which place he has since been engaged in mining surveying and engineering and has been an active promoter of mining interests and quite an extensive dealer in real estate. He is the owner of the "Model" gold mine and also owns an interest in the "Emmett" gold mine, both of which are paying. Since locating in Prescott he has taken no active interest in political matters, but has devoted his time and attention to his business interests, in the management of which he has shown excellent business capacity and foresight. He owns a ranch on the Gila River below Phoenix, which is a valuable one, besides other real estate interests. Mr. Powers is a member of the G. A. R. and politically is a life-long Republican. He was married in 1875 to Miss Louise Born, by whom he became the father of one son, Ridgely C., Jr. His second marriage occurred in 1893, his wife being Miss Mary Wilson of Cleveland. The degree of A. M. was conferred upon him in 1866 by Union College.

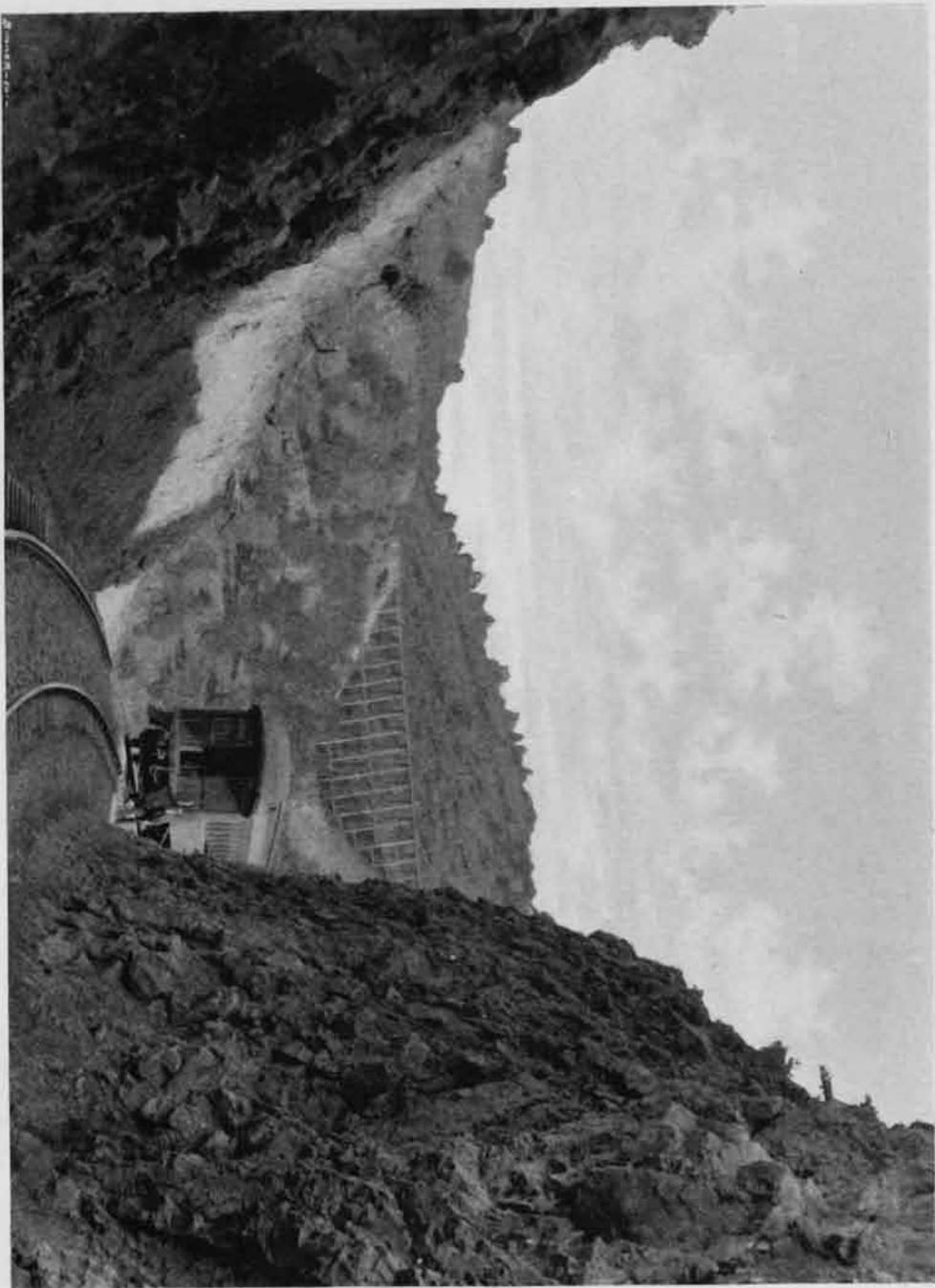
WILLIAM A. DRAKE. The question of transportation is one of primary importance the world over, and in the building of railroads the greatest care must be exercised and a thorough knowledge of civil engineering must be had. One of the most reliable men known in the profession, and whose experience has been long and

varied, is William A. Drake, who was born in Franklin, Delaware County, New York, January 30, 1848, and was there reared on a farm. His education, or the most important part of it, was acquired in the engineering department of the Delaware Literary Institute, where he pursued his studies from 1865 to 1868, being graduated in the latter year. He at once began following the calling of a civil engineer with the New York & Oswego Midland Railroad, but at the end of three years accepted a like position with the Lake Ontario division of the Rome & Watertown Railroad, and was with this road for five years as assistant and resident engineer. He then became bridge and building contractor of the Syracuse, Geneva & Corning Railroad, and after remaining thus employed for one year arrived in Colorado in May, 1878, and there spent six months engaged in mining. From that time up to March, 1880, he was division and locating engineer of the A. T. & S. F. Railroad, then became resident and locating engineer of the A. & P. Railroad for two years, and then for three years, or until the fall of 1885, was chief engineer at Albuquerque, New Mexico. He was next with the A. T. & S. F. Railroad as locating and assistant chief engineer in the Indian Territory, Kansas, Colorado, and constructed the Denver extension of the Santa Fe and became superintendent of the Western Division of the Santa Fe line in July, 1888. He continued to fill this position until March, 1891, with offices at Pueblo, Colo., where he remained until April, 1892. Since that time he has been in the service of the Santa Fe, P. & P. Railroad for the last year as chief engineer. While with the Santa Fe road in 1879, he took a number of horseback rides across New Mexico and Arizona, looking for a practicable route for the location of that company's lines. His labor has called him to many portions of the West, and notwithstanding his Eastern origin, he is essentially a Western man, and interested in her progress and development. On the 10th of September, 1873, he was married in New York State to Miss Julia Marvin, a native of that State, and their union has resulted in the birth of three daughters, Mattie, Nellie and Dorothy. Mr. Drake became a member of the Masonic fraternity in New York at Oswego, and also belongs to the American Society of Civil Engineers. Mr. Drake's thorough education and wide experi-

ence place him in the position of a master of his calling. He has become well known to municipal corporations, great firms and capitalists, and has in all instances discharged his duties and obligations as only a gentleman of fine talent and strict integrity could do.

AUGUSTUS C. CLARK. Augustus C. Clark, the present marshal of the City of Phoenix, Arizona, is a young man worthy and well qualified in every way for the position he now occupies; a most agreeable and social gentleman and deservedly popular with the public. The life of this worthy young man has been characterized by good impulses, successfully carried out by faithfulness to every duty no matter how trivial and by the most honest methods in all his business transactions. He was born in Austin, Nevada, March the 5th, 1868, and was the first white boy born there. His father, N. W. Clark, is a Virginian by birth, who emigrated to California in 1849, was successful in mining and made quite a little fortune. He went into business with David Wood and they built a tall bridge across the Uba River. The former also made the toll road from Marysville over the Sierra Nevada Mountains to Virginia City. He married Miss Mattie Curtis, at French Corrale, Nevada County, in 1866. Miss Curtis was born in Wisconsin and came with her parents to California in 1859. She was the daughter of Henry Curtis, a survivor of the Black Hawk war, and now a United States pensioner and a resident of Phoenix. City Marshal Clark's mother died at French Corrale when he was but six months old. He was left with his grandparents until his fifteenth year. They lived at Ventura, California, then moved to Los Angeles County, and later to San Diego, where their grandson got most of his schooling. In his fifteenth year he came to Arizona to his father, who had failed in business in California and was in Arizona on the Sandy, in Mohave County. While with his father Gus was employed as time-keeper on a toll road being built near the Arnold mine. About this time his grandparents moved to Phoenix and he returned to them, learning the tinner's trade and remaining in the same shop some nine years, the last eight years as foreman for the business for D. H. Burtis. He gave satisfaction to his employer and those from whom

SHOWING VARIOUS ELEVATIONS NEAR ROCK BUTTE, ON THE LINE OF THE S. F. P. & P. RAILWAY.



the latter had patronage. He was popular and rated as a mechanic of rare ability, proving thoroughly reliable in all contracts under his supervision. His kindness to his grandparents has been loving and unwavering, he never forgetting the care they gave him. In this he is an excellent example to many young men who have had more opportunity than fell to his lot during his stay with them. In 1895 he was elected to the office of City Marshal of Phoenix, Arizona, and is a most faithful, efficient and capable public servant. Socially he is a member of the Knights of Pythias Lodge No. 2 of Phoenix, and is a wideawake, progressive young man of the place.

JAMES I. GARDINER. In the whole range of commercial enterprise no interest is of more importance than that respecting the sale of general merchandise, and among the most notable dealers in this line is James I. Gardiner of Prescott, Arizona Territory, who came thither in 1879. He was born in old Missouri, and while growing up received a practical education. When he first came to Arizona he followed mining for some time, then saw milling, after which he worked for about four years for wages in and around Prescott. In the fall of 1883 he embarked in business on his own responsibility in a small way, across the street from where he is at present located, and there he was successfully and busily employed for seven years. He then erected the store building on the northeast corner of Cortez and Willis streets, a one-story building with a brick enclosure 50x150 feet. He was his own architect, and the store is a beautiful, commodious and convenient one. During the years from 1888 to 1891, he also had a storage room of general merchandise, which he sold under contract and under the protection of W. A. Clark, lessee of the United Verdi Company. Mr. Gardiner is like the majority of the citizens of Prescott in that he is interested in mining to some extent. In Skull Valley he and William P. Smith own 160 acres of land, on which they have 1,200 thrifty fruit trees, from which they expect and hope much. Mr. Gardiner has held the position of alderman of Prescott for four years, but can by no means be termed a politician. He is, however, deeply interested in the welfare of Arizona, and especially of Yavapai County, and is one of her foremost

citizens. His early life was marked by numerous hardships, but he surmounted the difficulties which strewed his pathway and is now in good circumstances and a successful business man. He was born near Boonville, Cooper County, Missouri, January 15, 1858, was reared on a farm, and at the age of thirteen was left without father or mother. From that time until he was seventeen years of age he made his home with a brother-in-law in the upper counties of Missouri, then went to Wichita, Kansas, and in 1876 secured employment on a farm in the vicinity of that place, his employer being a Mr. Alexander. During the winter of 1876 and 1877 he attended the Wichita schools, his instructor being Professor McKind, and this winter was one of the happiest periods of his life. From Wichita he went on the trail and was with Captain Burt, driving cattle to Wichita from the Indian Territory, and finally became that gentleman's partner, having been left some money by his father. They were associated in the cattle business for one year, a portion of which time was spent in various parts of Colorado, but no permanent location was made. Mr. Gardiner spent the winter of 1878 in Trinidad, Colorado, in the livery establishment of Bryant & Kair, then went to Otero, New Mexico, and took charge of their livery business at that place for a few months. He then made his way to Silver City, New Mexico, or rather started to go to that city, but upon reaching Santa Fe, fell in with an old pioneer who lived near Prescott and was persuaded by him to come to this city. The journey thither was made on burros and five hundred miles were covered in twenty-three days. They were compelled to journey in this manner owing to the fact that the "Star Route" had been attached, but the trip thither was by no means unpleasant, and many interesting things were seen and enjoyed. At that time Mr. Gardiner found it extremely difficult to find employment, but he finally engaged in chopping cord wood and was also engaged in mining at \$4.00 per day. Four years were spent in various occupations before he finally settled down to his present work. His success was assured from the start, owing to the fact that he attended closely to his business and was upright and honorable in his dealings with his patrons. At the time he embarked in his mercantile enterprise he had saved up about \$1,000 and

with this he laid the foundation of his present extensive business. He is essentially a self-made man, and it is to his own energy and foresight that his present prosperity is attributable. Mr. Gardiner was married in Warrensburg, Missouri, June 3, 1890, to Miss Rebecca E. Belle, by whom he has two children: Mary Frank and Gail Irvin.

DR. CHARLES ALBERT SEWALL. To heal the sick and cure the ills to which the human body is heir is noble but arduous labor, and is the most trying on brain and body of any in the field of science. Dr. Sewall is scholarly and well informed in every branch of his profession, and while pursuing it has seen a great deal of Western life, and as a surgeon of the United States army has had numerous opportunities of witnessing the mode of warfare practiced by the Indian. By nativity he is a product of the East, his birth having occurred in Baltimore, Maryland, October 16, 1849, but when still a mere lad he was taken into the interior and in the public schools of Philadelphia he acquired a thorough education. After his literary education was completed he began the study of medicine with Dr. J. Ewing Mears, a resident physician of the City of Brotherly Love, after which he entered the medical department of the University of Pennsylvania, in 1869, and was graduated from this institution in 1872. He at once entered upon the practice of his profession in his native State, but one year later, in 1873, entered the United States army as acting assistant surgeon, and until 1890 was located at frontier posts in New Mexico, Arizona, Colorado and Texas, the most important of which were Santa Fe, El Paso, Fort Lewis, Colo.; Fort Wingate, New Mexico; Fort Mohave, Arizona Territory, and at Cummings, New Mexico. In 1890 he came to Prescott, and for some time was located at Whipple Barracks as post surgeon, but one and one-half years later began a private practice in Prescott, where he has become known as a skillful and reliable practitioner, and has built up a large patronage. During the war with the Apache Indians, he was with the troops in the field and served with Generals Hatch, Buell and Bradley and Colonel Dudley, during which time he met with some thrilling experiences and had some narrow escapes from the scalping knife. The country be-

ing without railroad facilities, the Doctor was obliged to stage it to different posts, many of which trips were marked by the most exciting events and frequently by no inconsiderable danger. Dr. Sewall is the county physician for Yavapai County, and is one of the health officers of the city of Prescott. He is also secretary of the Yavapai County Medical Association, and since his residence in Prescott has shown the utmost interest in all her municipal affairs and is justly regarded as one of her most substantial and reliable citizens. The Doctor was married to Miss Virginia Evans, a native of Pittsburg, Pennsylvania, and a niece of W. C. Bashford of Prescott. They have one son, Bashford Perry, who was born April 14, 1889.

FREDERICK G. BRECHT. The career of this gentleman as a subject of "Uncle Sam" is an excellent example of what can be accomplished by those of foreign birth who seek a home on our shores. Mr. Brecht was born in Baden, Germany, December 18, 1848, and while growing up, besides receiving the usual educational advantages of the German youth, he served an apprenticeship at the blacksmith's trade, and thoroughly mastered it in three years. He was left fatherless and motherless when quite young, and when he was eighteen years of age he decided to come to America, for he had no home ties to bind him to the Fatherland. He landed in New York City, and after working at his trade there for two years, he made his way to San Francisco, Cal., where he arrived in 1868, but he was in various places until 1869, when he began working at his trade in Yuma, Arizona Territory, where he remained busily employed until 1871. He then made his way to Reno, Nev., but in the fall of that year came to Prescott and worked at his trade for others until 1872, when he established a shop of his own near where he is now located, but came to his present stand in 1873, where he has since held forth. The place was formerly used as a flour depot, but Mr. Brecht has rebuilt, improved and put on additions until it is a commodious and very conveniently arranged establishment. In 1882 he rented his shop and went on a trip East, but since his return has resumed the management of his establishment, which is without doubt the best of the kind in Prescott. Like all native Ger-

mans, Mr. Brecht has always been thrifty and persevering, and as a natural sequence he has met with success in his business ventures, and is regarded as one of the substantial business men of Prescott. Besides his shop he also owns other valuable property in Prescott, and has a very pleasant and comfortable home and a valuable farm six miles north of Prescott, which he devotes to agriculture and the raising of stock. In 1877 Mr. Brecht led to the marriage altar Miss Crezencia Holzschue, a native of Germany, from the Kingdom of Wurtemberg. Mr. Brecht is an enthusiastic Mason, and is a member of Aztlan Lodge, No. 1, of Prescott, and in this honorable order has attained to the Ivanhoe Commandery at Prescott. He is also a Shriner and belongs to Al Malaikah Temple at Los Angeles.

B. M. BELCHER. Few liquor establishments in Prescott are as popular among the better class of citizens as that of B. M. Belcher, and certainly few proprietors have the confidence of the public to such an extent as that possessed by Mr. Belcher. He is a native of Maine, his birth occurring at Farmington, June 29, 1855, and was there educated. In March, 1875, he made the long journey westward to Portland, Ore., and there he soon secured employment as ticket agent in the Newmarket Theatre, a position he held for two years, and during this time, at odd moments, he got out a complete and authentic city directory. At the end of the above-mentioned time he came to Prescott, and for four months was in the employ of the general mercantile firm of Anders & Rowe, at the end of which time he went to Tiptop Mining Camp, where he purchased Mr. Anders' interest, and for seven years was associated with W. A. Rowe & Co. in the general mercantile trade there. They also for some time conducted a store at Vulture mine, but later went to Phoenix, and for three or four years conducted a successful business at that place. Mr. Belcher finally decided to locate in Prescott, and thither he came in 1888, and here two years later, or in 1890, he opened his present admirably conducted place of business, the neatness and orderliness of which is universally known and commented upon. Mr. Belcher's goods are of the purest and best that can be obtained, and his patrons are among the best citizens of Prescott, and are connoisseurs of

good liquor. In September, 1883, Mr. Belcher was united in marriage with Miss Frances M. Thornton, a native of Oakland, California, by whom he has one child: Raymond Thornton. Mr. Belcher is socially inclined, and is a member of the K. of P. and the A. O. U. W. and B. P. O. Elks.

GORHARD H. SCHUERMAN, proprietor of the Sherman House, Prescott, Arizona. A well kept hostelry is an institution of the utmost benefit and convenience to any community, and is especially appreciated by the traveling public who are compelled to make their homes in the different hotels of the towns in which their duties call them. The proprietor of the pioneer hotel of Prescott, Arizona Territory, is Gorhard H. Schuerman, a native German, but like the majority of his race who have sought homes in this country, a substantial and law-abiding citizen of the United States. He is a product of Hanover, Germany, where he first saw the light August 6, 1849, a son of Henry and Julia Christena Schuerman, also natives of the Fatherland. Henry Schuerman fought under the great Napoleon, and afterwards against him. He was a man of thrifty habits, and was a cabinetmaker by trade. He and his wife became the parents of five sons and three daughters, of whom the subject of this sketch was the youngest. He was an attendant of the public schools of his native land until he left home in 1867 to come to America, and after landing on American soil, he made his way to Richmond, Ind., and joined his brother George, who had located there five years previously. Together they worked at the cabinet maker's trade, which they had learned of their father, until 1869, when Gorhard H. went to Cincinnati, Ohio, where he continued to work at cabinet-making until 1872. He then made his way to St. Louis, Mo., and was a resident of that city for ten years; at the end of which time he returned to Richmond, Ind., where he remained until October, 1884. At that date he came to Prescott, Arizona Territory, and he and a cousin, Henry Schuerman, bought the hotel of which he is now the proprietor, the Pioneer Hotel, which was the first hostelry in Prescott. These gentlemen were associated in its management, when the subject of this sketch purchased his cousin's interest, and has since been sole pro-

prietor of the same. In 1889 he added an additional story to the building, and it is now a commodious and substantial structure, and contains forty-eight rooms. Mr. Schuerman is an attentive, accommodating and considerate host, his house is comfortable and home-like in all its appointments, and the cuisine is of the best, consequently he has a liberal and steady patronage. He, however, has not confined his attention to this occupation alone, for he owns a fine agricultural and stock farm at Peoples Valley, and also owns mining interests in the Verde mining district, being the owner of the "Tough Nut" and the "Wonderful" mines, both of which are in operation. Mr. Schuerman was married on April 1, 1876, to Miss Louise Klappmeier, but on the 14th of May, 1887, was called upon to mourn her death. She was buried at Prescott and left two children: Anna L., and Bethel D. Mr. Schuerman is a member and treasurer of Prescott Lodge No. 1, of the A. F. and A. M., and belongs to the I. O. O. F., and is past grand chancellor of Arizona Territory, order of the Knights of Pythias. In 1892-93 he was chief of the fire department of Prescott, in fact, he has always been an active and public spirited citizen, and has always labored for the improvement and development of the place.

GEORGE C. RUFFNER. The office of sheriff is one that has been filled by the illustrious head of this government, and is a position that demands the exercise of great circumspection, great personal intelligence and a general and apt intelligence. The County of Yavapai is fortunate in its choice of its present incumbent, George C. Ruffner, who adds to strict integrity the other qualities essential to thorough discharge of the responsibilities connected with the station. Mr. Ruffner is a native of Effingham County, Ill., where his birth occurred November 16, 1862. His father, H. F. Ruffner, removed to Effingham at an early day, and in the vicinity of that place was engaged in agricultural pursuits, in which work his son, George C., assisted him until he had reached the age of sixteen years, in the meantime receiving but limited educational advantages. At the above-mentioned age he started out to fight the battle of life for himself, and soon made his way to Stillwater, Minn., where he se-

cured employment as a teamster for a considerable period. The far West had always possessed considerable attractions for him, and in the spring of 1882 he came to Prescott, Arizona Territory, and became a buccora on a cow ranch in Yavapai County, his time and attention being thus occupied for seven years. The two succeeding years were spent in teaming, at the end of which time, his energy and courage led to his appointment to the position of deputy sheriff of the county under J. R. Lowry, in which capacity he served for two years. He won golden opinions for himself in the discharge of his official duties, and these eventually led to his election to the office of county sheriff in 1894 on the Democratic ticket, there being but two Democratic nominees elected that year in the county. He received a majority of four hundred and twenty-six votes, which illustrates admirably the estimation in which he is held by the citizens of the county. He has the reputation of possessing nerves of steel, the utmost coolness in moments of danger and his name has become a terror to the outlaws and toughs which infest the county. Law and order are his watchwords, and these he is determined to preserve at all hazards, and in his official capacity has arrested and been the means of bringing to justice some noted desperadoes and criminals. In the gentler paths of life he has also manifested admirable traits of character, and in his home is considerate and genial, a cordial host and an amusing companion. In 1891 he was united in marriage with Miss M. Burchert, and their pleasant home is well known for the hospitality which is extended to all.

PROF. E. M. LAMSON. That the life of an educator is generally barren of incidents for popular biography is undoubtedly true, but it is still true that the work of one in this sphere must have many points of interest to practical thinkers, to philosophical speculators on education, and to the great work of educational progress. A sketch, therefore, of Prof. E. M. Lamson will be in order, for he is the successful head of the Lamson Business College, of Phoenix, an educational institution that has steadily gained in popular esteem ever since it was founded. Prof. Lamson was born in Lake County, Illinois, August 20, 1864, to Jonas G. and Jane (Manny) Lamson, the former

a native of Vermont, and the latter of Ontario, Canada. About the year 1855 the family settled in Lake County, Illinois, and there Mr. Lamson has successfully tilled the soil up to the present time. On the home farm the subject of this sketch was reared, and at the same time he acquired a thorough and practical knowledge of farming. He obtained a good education in the common schools. After taking a high school course he entered Lakeside Business College, and after being graduated from this institution in 1885 he went to Watertown, South Dakota, and established the Watertown Commercial College, which he successfully conducted for three years. At the end of that time he sold out and returned to Chicago, where he taught in all the departments of the Lakeside Business College for some time. He then became an instructor in Bryant & Stratton's Business College in the art of penmanship and arithmetic, and during the two terms that he occupied this position his class frequently numbered seven hundred pupils in penmanship. In 1889 he came to Phoenix, Arizona Territory, and here in a very modest way established a business college, but his ability and thoroughness as an instructor soon became recognized, his pupils increased in numbers, and thus was laid the foundations of the present admirably conducted Lamson Business College of Phoenix, which is universally acknowledged to be one of the finest institutions of the kind in the territory. As his patronage increased, he had to change his quarters from time to time, and in 1894 the present college building was erected. It is a two-story brick structure, with four large classrooms, sixteen bedrooms, a hall, stage, dining room and kitchen, all of which are commodious and fitted up with modern conveniences. This college has an average attendance of about fifty pupils, who receive thorough instruction in all the ordinary branches of learning, special attention being given to the different branches of mathematics. Professor Lamson is a man of progressive ideas, of practical purpose, an organizer of great ability and a manager who rules efficiently yet so gently that the appearance of enforced system is withheld from the governed. A bright future awaits him in the field which he has marked out for himself, and he is already well known in the educational world. So thorough and practical are his systems that the graduates of

his institution have all prospered. He was married in 1885 to Miss Flora Mills, of Chicago, by whom he has two children: Flora and Vary. He and his wife are members of the Methodist Episcopal Church.

WILLIAM H. SMITH. A noteworthy business man of Prescott, Arizona Territory, is he whose name heads this sketch, and the welfare and progress of the city and county in which he resides has always been of great interest to him. His walk through life has been attended with success, for he not only commands the respect of his fellows, but has accumulated a comfortable competency, the result of his own shrewdness and farsightedness. He owes his nativity to Detroit, Mich., where he was born October 2, 1855, a son of John H. and S. B. (Riedell) Smith, who died in Detroit and Bay City, Mich., respectively, when the subject of this sketch was quite young. They had removed to Bay City in 1861 or 1862, and there their home continued to be until the subject of this sketch was about thirteen years of age. He had served an apprenticeship at the butchers' business, and at the age of seventeen he decided to seek his fortune in the West, and for some time was a resident of San Francisco, Cal. From there he removed to Healdsburg, Sonoma County, Cal., and was there in business for himself until 1876, when he sold out and went to Humboldt County, in search of a better location, and finally drifted back to San Francisco, and early in 1879, in a suburb of that city, began buying sheep. In the latter part of that year he came to Arizona Territory, and after locating in Prescott worked for others until the firm of Akers & Smith was established in 1880, which business was conducted with reasonable success for fourteen months. Mr. Smith then sold out his interest in the establishment to Joseph Walker, and afterward established the Smith Brothers' Meat Market, which at a still later period was consolidated with the establishment of Mr. Walker, and these gentlemen did business together for about one and one-half years, then sold out their establishment to a Mr. Coffee. Immediately after going out of this business Mr. Smith began raising live stock on his ranch about thirty-five miles northwest of Prescott, but shortly after settling there a stock company was formed known as the Yavapai

Stockgrowers' Meat Market, of which Mr. Walker was made manager. After his resignation John H. Smith, brother of the subject of this sketch, became the manager, and at the end of two years the Smith Brothers bought out the Stockgrowers' Meat Market, which they together conducted very successfully for five years. Since the 25th of December, 1895, William H. Smith has been the sole proprietor of the business, and is doing remarkably well. He is also quite an extensive stockman, and with Levi Bashford owns large stock interests. Mr. Smith was married January 8, 1880, to Miss Elizabeth Bernhart, a native of California, and their union has resulted in the birth of the following children: Isabel, Gertrude, Anna, William, Ray, and Charles. Mr. Smith is a well-known member of the I. O. O. F. and belongs to the Encampment.

F. L. BRILL. The career of the gentleman whose name stands at the head of this sketch is but another evidence of what can be accomplished by those of foreign birth who seek a home and fortune on the free soil of America. He possesses the push, energy and enterprise for which his countrymen are noted, and as a natural consequence he has been successful in the accumulation of means, and has won a reputation for honesty and fair dealing that is in every respect justly merited. Mr. Brill was born in Prussia, Germany, December, 1832, to the marriage of Henry and Vina Brill, both of whom were natives of the old country, where they passed their entire lives. The father was a prominent manufacturer. Of the four children born to this worthy couple three besides our subject survive at the present time—Emerick, Mina and Magna. F. L. Brill grew to manhood in Bilstein, Prussia, attended the public schools of that place, and subsequently took a collegiate course at Lipstadt, where he graduated when about eighteen years old. In 1849 he left the parental roof and took passage on a vessel bound for the United States, where he expected to make his fortune. After a stormy voyage of several weeks' duration he landed in New Orleans, and amid strange faces and new surroundings he began the battle of life. He could speak but little English, and as he had but a few hundred dollars he thought it best to learn a trade. For six months he was actively engaged in learning the

cigar maker's trade in New Orleans and then went to San Antonio, Tex., where he started a cigar factory of his own. This he conducted very successfully for two years and then left that city with about \$2,000 as a result of his enterprise. In 1852 he was seized with the gold fever and with others made his way to California, going by way of the Isthmus, and landed at San Juan, where he was seized with a different kind of fever—the yellow fever, or Panama fever—which caused him to embark for San Francisco as soon as possible. The fever broke out on board the vessel and our subject did not recover from the effects of it for seven months. He remained but a short time in San Francisco and then went to the southern mines of California, Mariposa County, where he was engaged in placer mining and where he kept a boarding-house for about eighteen months. Not meeting with the success he had anticipated, he abandoned his business there and went to San Diego, where he first embarked in merchandise, but subsequently was engaged in stock raising. He took up land and carried on the cattle business in San Diego for ten years, and while in that city held the office of city trustee and supervisor for one term. He was also deputy sheriff for one year. In the spring of 1865 he came to Arizona, having the government contract to supply the posts with beef, and brought with him the first drove of cattle. Through the influence of his partner he acquired an interest in the Vulture gold mine, which had been discovered but a short time before. He took up a ranch on the Hassayampa River, three miles south of Wickenburg, then a thriving settlement, and set out an orchard there, which was the first on record in Arizona. He could raise all kinds of fruit, but made a specialty of apples. The Indians were so thievish and hostile that he could keep no stock and so gave his entire attention to fruit for about fifteen years. At the same time he worked the Vulture mine, but finally sold his interest in this and gave all his time to fruit raising. He supplied Prescott and Fort Whipple with fruits and potatoes and made a trip to those points once a week. After going out of the fruit business he again engaged in stock raising, and as a fine stream of water ran through his place and as he had succeeded in buying out his neighbors, he was able to control the water, and as a conse-

quence he was very successful in his cattle business. In 1885 he moved to Phoenix and began to raise alfalfa to fatten cattle, and as this met with excellent results, he made considerable money. Others soon followed his example, and as a result of this he is still engaged in the business and hundreds of others are now following his footsteps. Mr. Brill now owns three fine ranches, one of which joins the city of Phoenix and is very valuable. A part of it has been sold off in town lots. He deals quite extensively in cattle and now owns about 1,200 head. Mr. Brill owns a good home just outside the city limits and also considerable valuable city property. It is hardly necessary to add that Mr. Brill has made a success of life. Coming to this country a young "green" German, as he remarked, he has steadily climbed the ladder of success and can now enjoy the fruits of his early labors. For a number of years he was justice of the peace of Wickenburg and witnessed many fights between the Indians and white men. He had some narrow escapes himself. At one time he had all his stock stolen by the Indians. Mr. Brill is an interesting conversationalist and can relate many thrilling pioneer stories. He was married in 1877 to Miss Isabella Rourke, by whom he has three children—Frederick, Louis and Cora. His second wife was Miss Laura Copeland of San Francisco, and he and family hold membership in the Catholic Church. Politically he is a Republican.

SAMUEL ELIAS BRIGHT. He whose name heads this sketch has identified himself heart and soul with the interests of Arizona and is one of its most substantial, law-abiding and progressive citizens. He was born in Greenville, Mercer County, Pennsylvania, March 8, 1839. In 1860 he went to California by way of the Isthmus. Mining has been his principal occupation in life and has brought him in very good returns. He has seen the wonderful growth of the Territory in the last fifteen years and has contributed his share toward its advancement and development. Although a single man, Mr. Bright has great admiration and respect for the fair sex and is very fond of little children. He is a pleasant and agreeable gentleman to meet, is social in disposition, and the many friends he has gathered around him attest to his many sterling qualities

and his upright and honorable mode of living. "Live and let live" is the maxim he exemplifies. His Masonic card reads: "Samuel Elias Bright, Thirty-second Degree. P. M. Aztlan Lodge, No. 1, F. & A. M., Prescott, Ariz.; P. H. P. Prescott Chapter, No. 2, R. A. M., Prescott, Ariz.; C. G. Olive Council, No. 1, R. & S. M., Prescott, Ariz.; P. C. Ivanhoe Commandery, No. 2, K. T., Prescott, Ariz.; P. W. P. Golden Rule Chapter, No. 1, O. E. S., Prescott, Ariz.; Al Malaikah Temple, A. A. O. N. M. S., Los Angeles, Cal.; Masonic Veteran Association, Pacific Coast."

JOSEPH I. ROBERTS. A daily provision for the material wants of life, which means an appeasing of that craving creature of man known as the appetite, is one of the most important necessities of existence. Without the aid of the tradesmen the whole public would find itself in a tangled dilemma from which extrication would be impossible. Meats are the most necessary articles of diet and the market is one of the prime necessities of life and one of the most successful followers of this calling in Prescott, Arizona Territory, is Joseph I. Roberts, who has been engaged in his present line of work since April, 1892. He came from the far away land of Australia, his natal city being Melbourne, where he was born January 2, 1865, a son of Edward J. Roberts. He was left motherless when a small child, and after a number of years' residence in Australia he was brought by his father to America, and for some time thereafter lived in Junction City, Kan., where he acquired a practical common school education. In 1875 he came to Prescott with his father, who was a carpenter and wheelwright by trade, and here continued to attend school for some time. In 1887 he secured a position with Bashford & Burmister, which he continued to hold for about a year and a half, at the end of which time he decided to open a store of his own, and at Howell's, twelve miles from Prescott, he embarked in the general mercantile business, continuing for about eighteen months, then became connected with the Commercial Mining Company at Copper Basin, where he was employed about three months, then was eight months longer with this company in Prescott. Mr. Roberts has been reasonably successful in his business ventures, and besides his comfortable and substantial residence and

slaughter, house owns an excellent little ranch of forty acres two miles out from the city. From 1882 to 1887 he was quite extensively engaged in the cattle business about forty miles east of Prescott on the Sycamore River, but has found his present occupation to be both profitable and congenial. On the 6th of January, 1889, he was united in marriage with Miss Belle Jackson of California. Socially he is a member of the Woodmen of the World, Lodge No. 3, of Prescott. He is one of the substantial business men of the city, and, although young in years, is looked upon as one of her most reliable citizens.

J. L. GIROUX, well and favorably known in connection with the United Verde Copper Company of Jerome, has been a resident of Arizona since 1888. He was born at Montreal, Canada, in the year 1856, but when a boy came to the United States and was reared at Kankakee, Ill., where he received a good, practical education. He learned the machinist's trade at Clinton, Ill., was engaged in railroading for two years, but for the past twenty-one years has been engaged in mining in Montana, Utah and Arizona. Mr. Giroux is one of the keen, wide-awake business men of Arizona, and is a credit to the Territory.

MAJOR R. ALLYN LEWIS. This gentleman, who is general agent of the New York Life Insurance Company for the Territory of Arizona, was born in St. Louis, Mo., in July, 1866. His father was a lawyer by profession, but, being a man of considerable means, he did not practice very extensively, spending his time instead in travel. When but a small boy our subject left St. Louis and went to New York City, where he received a collegiate education. Leaving school without graduation, he spent two years in travel and then settled in San Francisco in 1885 and remained there over a year, being connected with Payot, Upham & Company, wholesale stationers of that place. He resigned his position with them to accept a similar one with Messrs. Kales & Lewis of Phoenix in March, 1887. Their bank was changed to The National Bank of Arizona in August, 1887, and the major remained with them until March, 1894, when he resigned his position as assistant cashier to associate himself with Howard C. Boone, then Terri-

torial auditor, in the management of the affairs of the New York Life. This partnership lasted until Mr. Boone left the Territory in March, 1895, when Major Lewis was appointed general agent of the company for the Territory. In May, 1894, after a hard fought campaign, he was elected to the city council from the Second ward of Phoenix, which position he still fills, being chairman of the finance committee of that body. From the organization of the National Guard of the Territory he has taken a great interest in that organization. Joining Company "B" in 1890, he was promoted successively through the non-commissioned grades, and on the reorganization in 1891 was made first lieutenant and battalion adjutant, retaining that position until 1892, when he was commissioned major. At the present time he is the acting inspector general of the Guard, being an acting member of the general staff. He has been a hard worker in this line and has done much to improve the efficiency of the Guard. The major is also deputy bank comptroller of the Territory, and in that capacity makes most of the examinations of the Territorial banks required by law. He has firm faith in the future prosperity of Phoenix and backs his faith with his money, having considerable invested in city real estate. He is also prominent in financial affairs of the Territory, and by his faith in property values and connection with capitalists East and West has done considerable to attract capital here and lower the rates of interest. As an accountant Mr. Lewis' reputation stands very high in this and other communities, the calls upon his time for expert work being frequently so numerous that he has had to decline, in justice to his other business, to accept any further employment in that line. As an active producer of business and for general administrative ability he stands very high with his company, and we predict a bright future for him. Major Lewis was married October, 1888, to Miss Laetitia McDermott of New York City, and they have three interesting children.

JOHN J. COLEMAN. Like many of the best citizens of the county, Mr. Coleman has spent the principal part of his days engaged in mining and is at present the superintendent of McCabe mine, which he assumed charge of in August, 1894. He is eminently the type of the progress-

ive American citizen, has pushed his undertakings to a satisfactory issue, and has met with a fair share of success. He is a civil engineer of note and a graduate of Notre Dame. In 1887 he came to Arizona and became foreman of the Silver King mine in July, 1888. Previous to becoming foreman of Silver King mine he was engaged as foreman in the mines around Silver City, New Mexico. As stated, he became superintendent of McCabe mine in August, 1894, and has had entire charge of that property since that time. He is a wide-awake, thorough man of affairs and has many friends among the best citizens of the county.

THOMAS J. CARRIGAN is a gentleman who has been steadily growing in popularity during the four or five years he has been conductor on the Santa Fe, P. & P. R. R., and his warm friends are to be found on every side. He has a decided liking and a natural aptitude for this most important calling, a secret, no doubt, of his popularity in it. Mr. Carrigan is a product of Peoria County, Illinois, born January 1, 1859, and he there remained until eighteen years old, receiving a thorough scholastic training in the schools of Elmwood. He began learning the boiler-making trade with Rohan Brothers of St. Louis, remaining there about three years. He subsequently went to Jackson, Mich., and there worked at his trade for some time. Later he began railroading on the T. P. & W. R. R. as brakeman, being thus employed a short time, then filling the same position on the C., B. & Q. until a short time afterwards, when he was made conductor. From there he went to the Hannibal & St. Joe, was conductor on that road six years, then went to the Cotton Belt as passenger conductor, and from there to the "Monon," all that time with W. R. Woodard. He later became superintendent of the E. S. & N. R. R. at Evansville, Ind. In 1886 he came to Arizona on account of his wife's health and was on the Prescott & Arizona Central as conductor and roadmaster. In July, 1892, he started on the Santa Fe, P. & P. R. R. as first conductor and took the first train over the road. Mr. Carrigan was first married in 1882 to Miss Carrie Scott of Brookfield, Mo., and daughter of A. D. Scott. She died in 1883. May 24, 1885, he wedded Miss M. J. Moloney, daughter of Capt. Moloney of

Memphis, Tenn., and they have two sons—Eugene William, born April 24, 1890, and Thomas Howard, born May 11, 1887. Mr. Carrigan is a member of the Knights of Pythias, Brookfield, Mo.; A. O. U. W., Prescott; the O. R. C., Lafayette, Ind., and also B. P. O. E. of Phoenix. He is now superintendent of the Congress R. R., running from Congress Station on S. F., P. & P. R. R. to the Congress mine.

PHILIP K. HICKEY. Our wisest and most conservative capitalists are now turning their attention to the inviting fields opened to the investor in the States and Territories of the great West, where the legitimate demand for money is by far greater than the local banks can supply, and where the development of surprisingly rich agricultural capabilities and inestimable valuable mineral and other natural resources make it easy for the borrower to pay liberal rates of interest upon the advances which he finds so necessary at the starting point. The foundations for many splendid fortunes are being laid in such States as Washington, Oregon and Utah and the Territory of Arizona by enterprising men, who have availed themselves of the advantageous opportunities which have presented themselves for the placing of capital. Perhaps Arizona is the best field at the present time to make money in, because, while its resources are wonderfully rich and varied, its claims have not been so fully set forth before the public mind, and there is still time, to make use of a popular phrase, "to get in on the ground floor." It is quite proper for us to call the attention of our readers to a strong and reliable institution that can put Eastern investors in the way of making money out of the coming development of this remarkable Territory—the Western Investment Banking Company of Phoenix, Ariz. This company was organized on March 4, 1890, with an authorized capital stock of \$100,000. The company began business on the first day of the following May on a subscription of 152 out of 1,000 shares paid up—or \$15,200—and is to-day, without further sale of stock, worth \$30,000, and on July 3, 1895, on sixty-two months' business paid dividend No. 1, of \$236 per share. It is certain, in view of such a showing as this, that the company is managed with notable ability and prudence by men who thoroughly understand their business, and whose high char-

acter and unquestionable business methods command the full confidence of all with whom they have dealings. The officers are P. L. Kay, president; J. A. Lutgerding, vice-president, and P. K. Hickey, cashier.

Phoenix has a no more useful citizen and the Salt River Valley a no more valuable friend than Philip K. Hickey, the most efficient cashier of the above-mentioned bank. His energy, foresight and industry are phenomenal, and his success by the exercise of these qualities has been quite commensurate. His interests in Arizona, and especially in Phoenix, are multitudinous. The real estate firm of which he is the head is one of the most extensive in the West, as it is the oldest in Phoenix. As a general investment broker Mr. Hickey has built up a business second to none in the city, and he represents a line of investments without a superior. Besides these interests, which ought to be sufficient to occupy the attention of an ordinary energetic man, Mr. Hickey is in charge of one of the leading life insurance companies in the world. He also conducts a department of notarial conveyancing and abstract work. Personally, and with his associates in the banking enterprise, he is the owner of much valuable real estate in and about the city and which is daily indicating the owner's judgment and adding to his wealth. Although the upbuilding and management of his extensive affairs have required prodigious and incessant labors, Mr. Hickey has found time to engage in enterprises of a more or less public character. It is to him the Phoenix Jockey Club owes its existence, and he was also the organizer of the Arizona Industrial Exposition Association. Mr. Hickey was born in Birmingham, Conn., in 1856. When young he was taken to the Pacific coast and his earlier years were passed in El Dorado County, California. Having attained a business education, at the age of seventeen he entered upon a mercantile life, which he pursued with great success. He came to Arizona in 1880 and was first employed by L. Zeckendorf & Company of Tucson as traveling accountant. The following years he had charge of the accounts of P. W. Smith & Company of Tombstone. The next year he came to Phoenix and took a similar position with William B. Hooper & Company. Before the close of that year the firm retired from business and Mr. Hickey began business for

himself, and during the succeeding ten years the splendor of his success has been undimmed. He is very prominent in I. O. O. F. circles. He is Past Grand Master, I. O. O. F.; Past Commandant Canton, Arizona No. 1; Past Department Commander, P. M., I. O. O. F., Arizona; Past Chief Patriarch Floral Encampment, No. 2, I. O. O. F., Arizona; Past Grand, Phoenix Lodge, No. 2, I. O. O. F., Arizona; member of Arizona Rebekah Degree Lodge, No. 1, I. O. O. F.; Past Grand Representative Phoenix Lodge, No. 5, A. O. U. W., Arizona, and is a lieutenant colonel in the Patriarchs Militant and a Knight Templar in Masonry.

WILLIAM K. MEADE. Success in life is a stimulus to others less fortunate in the fray, and an example for them to emulate. It is an indication of close application, industry and faithfulness. It is something to be proud of and the world is better for the life of every successful man. William K. Meade is a man whose success in life has been attained by his own indomitable energy and perseverance. He was born in Clark County, Virginia, September 21, 1851, and remained there until 1868, attending the private schools. In the winter of 1868 he went to St. Louis and thence to Denver and New Mexico, searching for a suitable location, and in Elizabethtown, N. M., he followed mining and was also engaged as clerk in a store for about two years. Returning home, he remained there a few months and then made his way to the Pacific coast, stopping in Utah and Nevada for a short time. He spent one year in San Francisco and from there went to San Diego, where he resided until the winter of 1875 and '76. From there he came to Arizona and located at Silver King Pinal County mine, where he prospected for some time. In 1878 he was elected to the Legislature, served one term, and then returned to Pinal County, but shortly afterward went to Tombstone. At this place he was engaged in mining, and in 1880 was elected from Pima County to the Territorial Council, but continued to reside in Tombstone until 1885, when he was appointed by Cleveland, United States marshal for Arizona, serving until the spring of 1890. After this he was engaged in mining until 1893, when he was again appointed United States marshal, and holds that position at the present time.

He is still interested in mining, but not quite so extensively as formerly. Mr. Meade was appointed by President Harrison as World's Fair commissioner; was a delegate to the convention that nominated President Cleveland in 1884, and a member of the National Democratic Committee from 1884 till 1888. He was married in 1887 to Mrs. Helen S. Stevens of Los Angeles, Cal., and a native of that State.

M. WORMSER, who has experienced many of the ups and downs of Western life, was born in Lorraine, France, in 1835, and in 1858 came to America. He landed at New York with but \$15 and without friends or acquaintances and unable to speak or understand the English language, he started out to seek his fortune. He first found employment at \$10 per month, working from 6 o'clock in the morning to 7 o'clock at night, but after four months worked at \$75 per month for five months. The great West then claimed him, and at San Luis Obispo, Cal., he went into a partnership in the livery business. For five months he had charge of this, doing the work, sleeping on the hay and doing his own cooking. The existing rule at that time was to do business on credit, settling once each year, and, in the absence of money, paying in cattle. When Mr. Wormser attempted to collect he could not do so because his partner owed creditors of the firm and the creditors withheld their payments until they were first paid. Again Mr. Wormser started out anew, this time with only ten cents to call his own. After a time he secured goods from a store-keeper on credit to the amount of \$2,000, and, with a partner, started peddling. The partner proving a gambler, he dissolved the partnership and continued the business alone, continuing it for eight months. During this time he experienced many strange adventures, and, owing to the sparsely settled condition of the country, was often compelled to sleep on a mountain top without knowing what direction he should take the following morning. Having thus acquired some money, he located at San Luis Obispo and began purchasing horses, fattening and then selling them, and in this way made considerable money. With the money thus acquired Mr. Wormser began loaning his funds, and as the prevailing rate of interest was 10 per cent per week, he secured, in his five years' resi-

dence in San Luis Obispo, a handsome sum. He then went to La Paz, the shipping point for Arizona, and became interested in mines, but at this lost considerable money. In 1863, with a partner, he began placer mining and was among the first of the whites at Weaver. About two miles from this point, on the mountain top, gold was freely found in pieces worth from \$2 to \$100 and was dug up with large knives. Here Mr. Wormser started a store and sold goods at an immense profit. Flour brought \$26 per hundred weight and other goods were in a like proportion. The camp was peopled by the roughest class and murder was an everyday occurrence. Upon gold being discovered at Workes Creek Mr. Wormser opened a store there, and when the Territorial government was established, the seat of government being at Fort Whipple, near the present site of Prescott, he also opened a store at the latter place. As all of his stores had to be brought in by pack train many thousands of dollars' worth were lost through Indian depredations. So bold became these troubles that once Mr. Wormser, with a pack train protected by twenty-seven men, ten soldiers and a corporal, was attacked by the Apaches. In this engagement he lost \$3,000 worth of goods, was wounded in the leg and two soldiers were wounded. For ten years Mr. Wormser was engaged in merchandising at Prescott. In 1874 he removed to Phoenix, and, opening a store, conducted a large trade with the farmers, taking grain in payment for merchandise. Owing to the great reduction in the price of grain and through bad accounts, Mr. Wormser lost a large amount in money--in fact, almost his entire earnings of previous years of toil and anxiety. Borrowing horses, harness and land, he began farming as his third start from poverty. The first year, over all expenses, he cleared \$3,000, and he continued agricultural pursuits, clearing from \$8,000 to \$10,000 per year until a marked decrease came in the prices of products. He then rented his land and is now employed in caring for his large estate, consisting of 8,000 acres, canals and other property.

THOMAS EDGAR DALTON. The Empire State has contributed her share towards the advancement and progress of Arizona in the number of excellent citizens she has sent here. Among

the number may be mentioned T. E. Dalton, who has been a resident of the Territory since 1887, and who is now president of the Phoenix Stationery and News Company. He is a native of St. Lawrence County, New York, born May 5, 1864; son of John and Margaret (Monihon) Dalton, natives of Ireland, who came to this country with their parents when young. They met and married in St. Lawrence County, and there they reside at the present time, the father engaged in agricultural pursuits and quite wealthy. Their six children were named in the order of their births as follows: Thomas E., James, Richard, John, Christopher and Annie. In the public schools of his native county T. E. Dalton received his primary education and later entered St. Lawrence University, from which he was graduated with the degree of B. S. in 1887. Immediately afterward he came to Phoenix, Ariz., having been elected principal of the Phoenix public schools, and took charge of the schools, which at that time had six teachers, including himself. The town grew rapidly, the pupils increased in number and soon after two new school buildings were erected, they being known as East and West End buildings. Mr. Dalton had charge of the schools for five years, or till 1893, when he resigned and engaged in the real estate and insurance business, following this most actively until February, 1895. Since then he has been in partnership with Capt. E. A. Poyen and A. W. Lamm and the firm is incorporated under the name of the Phoenix Stationery and News Company, which is the largest establishment of the kind in the Territory. Their store is well stocked with the latest publications, stationery, notions, etc., and they are doing a good business. Mr. Dalton is president of this concern and it is conducted under his management. He is a man who takes great pride in the improvement and development of Arizona and is classed among the public-spirited citizens of the place. He was married November 1, 1895, to Mrs. Mamie E. Williams of Phoenix. Mr. Dalton and wife are members of the Catholic Church and give liberally of their means to all worthy movements. Politically he is a Democrat, has always taken a deep interest in political matters, and was defeated with the balance of the ticket for the Legislature in 1894. On May 11, 1896, he was appointed by Governor B. J. Franklin to

the office of superintendent of public instruction for Arizona Territory, for which office he is well equipped in education and experience and promises to make the best superintendent the public schools of Arizona ever had.

FRANCIS M. MOGNETT. A noted writer has said: "The present is the child of all the past, the mother of all the future." If this be true where will the generations of the future find a more impressive lesson or faithful guide than in the study of the lives of those men who have achieved a successful prominence in the busy walks of life? There is in the intensified energy of the successful man, fighting the everyday battle of life, but little to attract the attention of the idle observer; but to the mind fully awake to the stern realities of life there are noble and immortal lessons in the life of a man, who, with very little aid other than a clear head, a strong arm and an unlimited amount of perseverance, wins for himself a position both substantial and social among his fellow men. Among such men may be mentioned Francis M. Mognett. He was born in Caldwell County, Missouri, near an old Mormon settlement, April 27, 1842, to the marriage of George Mognett and Frances (Farley) Mognett, both native Virginians. In 1852 the family started across the plains, but the mother died of cholera while on the way. The rest of the family reached Portland, Ore., and settled on a farm in the Willamette Valley. There the father died when eighty-one years old. In 1876 our subject left Oregon and made his way to Arizona, taking with him about 400 head of cattle. He located at Dripping Springs, Yavapai County, on a large ranch and entered actively on his career as a stockman. He still owns this ranch. In 1881 he came to Phoenix and the same year purchased sixty-two acres of land within the corporation. This has since been subdivided. Mr. Mognett built the Lamson Business College and is a man who allows no worthy movement to fail for want of support on his part. He still handles beef cattle, buying and fattening for the market. He also has half interest in 240 acres at the Grand Canal, one-half interest in eighty acres of land below Tempe, and property in Phoenix. On the 18th of September, 1870, Mr. Mognett married Miss Sarah E. Wilson, a native of Oregon, whose father was a resident of Portland, that State. Ten

children have been born to this union and are named as follows: Minnie A., now Mrs. Charles Stevens of Phoenix; Sarah F., now Mrs. W. A. Milton of Briggs, Ariz.; George W., Ida M., Rosa L., Elmer F., Martin J., Anna E., Jessie I., and Francis M., Jr.

DAVID KILE. Since the year 1881 Mr. Kile has been engaged in stock-raising and farming near Phoenix, and has shown much wisdom in the management of his affairs, for he is now one of the substantial and well respected citizens of the county. He is possessed of those advanced ideas and progressive principles so characteristic of the native Iowan, having been born in that State February 16, 1856, to the union of Reuben and Eliza (Boyer) Kile, both Pennsylvanians by birth. The parents emigrated to Iowa in 1848, and made part of the journey by water and part by wagons. The father is a mechanic and established a foundry at West Point, Iowa, which he is running at the present time. He does an extensive business for the railroad shops and is an influential and worthy citizen. For eighteen years he has been a member of the City Council, and is one of the School Trustees of West Point. He and his wife are the parents of eleven children, eight now living, of whom our subject is the third. The latter received a good practical education in his native county, and remained with his parents until 1878, when he left home for California. Arriving in that State he located in Butte County, and worked on a ranch for a few months, after which he went to Tehama County and was foreman for Bullard & Dresbac, large farmers and stockmen. After remaining with them about a year, he returned to Butte County and superintended a ranch for some time. In September, 1881, he turned toward the South and located in Salt River Valley, Arizona, where he worked out for a year and then embarked in business for himself. He entered 160 acres of government land, where he now lives, and which at that time was covered with sage brush and mesquite trees, but he has cleared it all up and is now the owner of one of the best improved farms in the valley. It is all in alfalfa, and averages four crops each season, besides furnishing good pasture. This land averages one ton and a half to the acre at each cutting. Mr. Kile deals in fine horses, has

some fine standard bred trotters and roadsters, and is one of the substantial and progressive men of the valley. He assisted in building the Grand Canal, which is one of the old canals of the valley, and is interested in educational matters, being at present one of the school directors of district No. 5. He assisted in building the fine school house near his place, and is interested in all worthy movements. His marriage with Miss Nettie Steele occurred December 25, 1883, and they have had three children, all now deceased. Mrs. Kile is a native of California. Our subject is a Democrat in politics, and he and wife hold membership in the Baptist Church. Mr. Kile deserves much credit for the success he has made of life, for he started out a poor boy with nothing to aid him in his onward career except a pair of willing hands and a determination to succeed. He is now in comfortable circumstances.

GOLDEN MOUND MINING & MILLING CO. This vast enterprise, which is carried on in Yuma County, Arizona, fifteen miles west of Horqua Hala, was organized November 1, 1895, by George F. McFall, C. J. Kimbell and R. P. Wakeman. A new plant has been introduced, a ten stamp mill has been recently erected, and business is in a most flourishing condition.

GEORGE McFALL is a product of Missouri, born in Gentry County April 17, 1861, and the son of John and Martha (Sylvia) McFall, natives of Kentucky and Missouri and of Scotch and German origin respectively. The father was a most successful stockman and farmer, and on the home place young George grew to sturdy manhood, assisting in tilling the soil and in stock raising until twenty-one years old. He then went to Emporia, Kan., was engaged in shipping and stock raising for five years, but during that time made several trips to Texas and Indian Territory. Later he carried on business at Emporia and Dodge City, met with unusual success and in 1887 went to Colorado, where he was in business at La Junta and Pueblo. He is still engaged in the stock business and is also interested in mines in Colorado, and is engaged in shipping from the above-mentioned places. In the month of October, 1888, Mr. McFall came to Dragoon Summit, north from Tombstone, and brought about two hun-

dred and fifty head of cattle. Leaving the cattle at that point he came to Phoenix and engaged in farming, contracting and stock raising. In the year 1894 he began mining as a business though, and is now giving almost his entire time and attention to it. He was married near Independence in 1881 to Miss Mary E. Polsgrove, of St. Joe, Mo., and they have five children—John S., George D., Harry E., Leland E. and Gillian L. E. Mr. McFall is a member of Phoenix Lodge, No. 2, Knights of Pythias; Phoenix Lodge, No. 5, Ancient Order United Workmen, and Phoenix Lodge, No. 5, Woodmen of the World. Mr. McFall resides in Phoenix, and carries on his mining operations in Yavapai and Pima Counties.

CHARLES J. KIMBELL was born in San Francisco, Cal., on the 9th of July, 1859, to the union of Albert G. and Sarah C. (Gleaves) Kimbell, both natives of Tennessee. He was educated in the schools of Oakland and Sacramento, and in the year 1878 he began studying assaying. Two years later he left California and located at Tucson, where he fitted himself out for the mountains and prospecting. He was thus occupied in Cochise County until 1885, when he went to New Mexico, and while there was all the time engaged in mining. From there he went to Chihuahua, Mexico, in 1892, remained in the mines there for a short time, and then returned to New Mexico. A few months later he came to Phoenix, Arizona, and here he has made his home since, engaged as an assayer and in mining. He operates with Mr. McFall in other mines, notably in Yavapai County, and is a wide-awake man of affairs. He is a member of Deming Lodge, No. 20, K. of P.

J. T. SIMMS. Among those who have been closely identified with the growth and prosperity of Arizona Territory is J. T. Simms, a man well and favorably known throughout its length and breadth. Seldom has a life been crowded with so much incident and adventure. The record of it reads more like a romance than the story of the life of a man of the present generation. Mr. Simms is a native of that grand old mother of States and statesmen, Virginia, his birth occurring in Lewis County in 1833. His father was a farmer; he assisted on the farm after leaving

school, until seventeen years old, when he secured a position in a country store, owned by George A. Jackson, and at the headwaters of the West Fork of the Monongahela River. In a few months he was given entire charge of the business, the proprietor doing the buying, but the latter becoming ill, was obliged to sell the business and our subject was out of employment. He spent some time traveling in the West, and then decided to go to Chicago, which at that time had a population of about 50,000. The houses at that time were built on the level of the prairie, but many of them were being raised, and Mr. Simms remembers that Lake Street was being graded and raised several feet. This was in 1853. From Chicago he traveled through the Northwest for several years selling agricultural implements. In 1856 or '57 he engaged in merchandising on his own account, and continued this until January, 1859. He then sold out and went with a party to Brazil, South America, to build the Dom Pedro Railroad across the Serra do Mar (Mountains of the Sea). He took passage on the good ship Banshall, which was engaged in the coffee and flour trade between Baltimore and Rio Janeiro, and although the vessel experienced two severe storms, and when near the equator was encalmed for a week, he, after a voyage of forty-seven days, reached his destination. The vessel entered the harbor of Rio Janeiro at about nine o'clock at night, and Mr. Simms says he will always remember the grand view by gas light of the largest city south of the equator. When the health officer came on board the next morning and told them that the death rate from yellow fever was two hundred a day, Mr. Simms and his companions gathered up their belongings and left for the mountains, where they would be safe, as soon as possible. The road had been built from Rio Janeiro to the foot of the mountain, and the section they were to build, although only ten miles, was very heavy work, as there were thirteen tunnels, from six hundred feet to one and a half miles each. After four months' experience as bookkeeper, timekeeper, storekeeper and assistant superintendent for the company, Mr. Simms, with another Virginian (a thorough railroad man), secured a contract to build one mile of the railroad on which were two tunnels and very heavy outside work. The road passed through a dense

forest populated with tigers, monkeys, boa constrictors and other animals. After finishing the work with profit to themselves, Mr. Simms and his companions secured a contract on the extension of the road through the great coffee plantations, and after finishing that, in 1862, secured a large contract on the Santos & San Paulo Railroad, three hundred miles south of Rio Janeiro. Mr. Simms was in charge of from one hundred to three hundred men, consisting of Portuguese, Spaniards, Brazilians, Africans and other nationalities, from July, 1859, to September, 1864, and after settling up the business, left Rio Janeiro December 10, 1864. He took passage on the royal mail steamship "Parana" for Southampton. The experiences and incidents connected with his six years' residence in South America, if written up, would make most interesting reading, for railroad men at least. Mr. Simms ridicules the hot weather of Phoenix, and says that the night before he left Rio Janeiro, December 9, 1864, at ten o'clock, the thermometer stood at 110 degrees. After a passage of twenty days, during which time they stopped at Bahia, Pernambuco, and the Canary Islands, for coal, the vessel reached Southampton, England, and the same day Mr. Simms went to London. The voyage was without incident except that they got in the path of a terrible hurricane, which capsized twenty ships and barges in the Tagus River at Lisbon. During this storm the waves reached forty feet in height, as estimated by the officers of the "Parana." Out of eighty passengers our subject was the only one able to eat an English Christmas dinner, the others being very seasick. After viewing the wonderful sights of London, Mr. Simms made a tour of the Continent, and then returned to his native land, reaching America before the end of the year 1865. Having acquired a knowledge of railroad building and liking it better than any other business, he was soon at work in the Western States. In 1878 he directed his course Southwest, and his first contract was in the Grand Canon of the Arkansas River, west of Canon City, Col. The road was being built by the Santa Fe Railroad Company on account of a prior right of way. The United States Court, in a decision handed down in July, 1879, awarded the road from Canon City to Leadville, then nearly completed, to the Denver & Rio Grande Company,

they paying the cost of building. Mr. Simms secured a contract with the Santa Fe Company and continued with that company, doing a great deal of the heavy work to El Paso, until the work was completed. From there he went to the Atlantic and Pacific in 1881, and built eleven miles of railroad, including one tunnel, from near Williams to Fairview. It cost the company \$365,000 to build this, and Mr. Simms finished it in about a year. The scarcity of water was a great hindrance there, and for five months it cost \$125 a day to haul water for the force engaged in building this road. From there Mr. Simms went to Lordsburg & Clifton Railroad, where he built four tunnels and had other work on the road. His last contract was the Arizona Canal, in 1883, and this was finished the following year. Then after twenty-five years spent as a railroad contractor and doing all kinds of public work, he retired and went to farming and stock raising, in which occupation he lost money. In 1887 he retired from the business for good. When on his way to the Atlantic & Pacific Railroad, in 1881, Mr. Simms passed through Phoenix, and was so impressed with the Salt River Valley that he determined to make his home there. He has never regretted settling in this lovely spot, and he believes there is a great future for this Territory.

JOHN A. LUTGERDING. Among the prominent ranchers, stock dealers and old residents of Maricopa County, Arizona, stands the name of John A. Lutgerding, a name well and favorably known throughout the section. He was born in Hanover, Germany, September 1, 1843, as were also his parents, George and Elizabeth (Roup) Lutgerding. In the year 1850 the parents crossed the ocean to America, landed at New Orleans, and subsequently made their way to Quincy, Ill., locating about nine miles from that city. There the parents resided for some time, and there the mother passed away about 1858. In 1893 the father moved to Arizona and is a resident of that Territory at the present time. Of the eight children born to them only three are living at the present time, John H. and Sophia (twins), and our subject. The latter was but seven years old when he came with his parents to this country, and as a consequence has but a dim memory of his fatherland. He was reared to farm

life and attended the country schools, but for the most part is self-educated. When but fifteen years he was left motherless, and at this loss the affectionate boy was very much disheartened. He soon went to Quincy, entered a blacksmith shop, and after learning the trade followed this in connection with other enterprises until 1864, by which time he had accumulated some money. On the 20th of April of that year he started to cross the plains to California, and while on that long journey had considerable trouble with the Indians and with high water. He had many thrilling adventures during that trip, but escaped injury and reached the Pacific coast in safety. Mr. Lutgerding drove a four-mule team all the way and was six months and nine days on the road. He first stopped at San Bernardino, Southern California, and remained there until the fall of 1866, working at his trade for a dollar a day, and taking his pay for the most part in goods from a store. In the last named year he went to the La Paz, on the Colorado River, in Arizona, followed his trade there for himself, and often made as much as \$50 a day. He charged \$6 for shoeing a horse and \$20 for setting the tires of a buggy. While living in La Paz the Indian agent, a man by the name of Lehigh, came to our subject and offered him great inducements, \$15,000 to \$20,000, by a government position. Mr. Lutgerding, only a boy and anxious to make money fast, thought over the matter, and finally concluded to accept his proposition. He sold out his shop and had everything ready to start on a certain morning, but his conscience troubled him so that early on the morning of the day he had planned to start he went over and told the Indian agent that he would not go. This did not prevent the latter with two others from going, and all were killed. Early in 1870 Mr. Lutgerding located in Wickenburg, and with J. M. Bryant was engaged in hauling quartz from Vulture to Vulture Mill, following this for three years. He was cheated out of the pay for this. Afterward he engaged in teaming over the Territory for a few years, and in 1877 located in Phoenix, where he has since made his home, or at least in the vicinity. He ran a blacksmith shop for several years in connection with other business enterprises, and being liberal and warm-hearted, started a number of friends in business. Mr. Lutgerding built the first brick

house in Phoenix, and is certainly one of the old landmarks of the place. At the present time he is engaged quite extensively in stock raising, and has from three hundred to five hundred head of cattle on the ranch. He owns about 530 acres of land, a part being in the city, and he is also interested in one of the best meat markets in Phoenix. By industry and economy he has become the owner of a comfortable competency, and like the majority of those of his nationality, is an honorable and progressive man. Mr. Lutgerding was married in 1879 to Miss Rosilla Linville, a native of California, and they have two children: George H. and Robert L. One Sunday morning in 1871, while at the Vulture Mill, Mr. Lutgerding was standing in the door of his cabin when the stage coach, containing eight passengers and a driver, passed by. At ten or eleven o'clock that night a messenger came to our subject and told him that all the people in the stage had been murdered but two, and wanted a team to go after the two then living. Mr. Lutgerding saddled his horse and in company with two or three others started for the scene. Arriving there Mr. Lutgerding stumbled over the body of one man in the dark and found two others sitting upright in the stage, but both dead. They found the two living passengers almost frozen and badly wounded. They were tenderly carried to Vulture Mill, and all the bodies were brought there and buried. The Indians, the perpetrators of this outrage, escaped with all the plunder.

JOHN P. ORME. The gentleman whose name heads this sketch became prominent as a surveyor and civil engineer of Maricopa County, Arizona; is unquestionably one of the ablest and best posted on that subject in his section, but for the past twelve years has practically turned his attention to other pursuits. Mr. Orme was born in Maryland, twenty miles above Washington, on the Potomac, November 28, 1852. He left his native State when fourteen years old, and in 1866 went to Missouri. In September of the same year he entered the State University of Missouri, where he made a specialty of the study of science, mathematics and civil engineering, and was graduated in 1869. After leaving school he gave his attention to engineering and in 1869 began on the Chicago & Alton from Louisiana, Pike County,

Missouri, to Kansas City. In March, 1870, he went with M. K. & T. and helped to lay out Denison, Texas. In 1871 he went with the Texas & Pacific, and helped survey from Texarkana to Ft. Worth, the trans-continental line, and was thus occupied until 1873. In that year he began on the Sabine Pass & Northwestern Railroad to Springfield, and lost his health in the swamps near Sabine Pass. Returning to Baltimore, Md., in 1874, he remained there until 1875, and then came back to Texas, and for one year was engaged in the stock business. After that he was in Leadville, Col., one month, and from there went to Southern California. In March, 1876, he came to Phoenix, and in May, 1879, went to Maricopa, where he started the first corral there. Selling out he came to Phoenix and clerked for E. Irvine. In 1880 he engaged in agricultural pursuits and settled on land near Phoenix, where he resides at the present time, and where he has eight hundred and thirty acres. He has a cattle ranch in the mountains and has met with unusual success. On the 8th of March, 1880, he married Miss Ella Thompkins, a native of Texas, but a resident of Colorado from early childhood. They have four children—Clare E., Ora, Dorris and Charles H. Mr. Orme surveyed and built the Maricopa Canal, and had charge of the work. He is a member of the United Workmen and is also a member of the Red Men.

THOMAS HOLLAND. Among the early settlers of Arizona it is but just to say that Thomas Holland takes a prominent place, for he has resided in this section for many years and has always occupied a conspicuous and honorable position. He is at present proprietor of the Castle Creek Hot Springs, Phoenix, and is a wide-awake, thorough-going man of affairs. He is a native of Tennessee, born December 27, 1825, and the son of Jacob Holland, also a native of Tennessee, born in Cocke County. The mother, Elizabeth (Warren) Holland, was born in Greene County, Tennessee, and came of old Virginia stock. In 1834 Jacob Holland and family removed to Linn County, Missouri, resided on a farm there until 1844, and then removed to Platte County, Missouri, in 1844. Two years later Thomas Holland enlisted in the Second Missouri Regiment in the Mexican War,

under Sterling Price, served all through the same and was in a number of the most prominent engagements. Returning to Missouri after the war he remained there one year, and then went to California, via Ft. Leavenworth to Santa Fe. The company with which he made the journey branched off and came by the "Cook" route through Southern Arizona. There were thirty-two in this company and five teams. Mr. Holland was on the road going to Los Angeles, from May until December, 1849. From there he proceeded to Mariposa County, California, in February, 1850, and there remained until 1853, when he moved to Tuolumne County. When he first came to California he was engaged in freighting from Stockton to Mariposa, but after moving to Tuolumne County he turned his attention to placer mining for seven years, making considerable money. In 1860 he went to Virginia City, Nev., and was engaged in prospecting for some time, but later turned his attention to the wood business, furnishing wood for the great "Mexican Mill" and mine, and getting from twelve to twenty dollars per cord. After following this for a year and a half Mr. Holland sold out and went to Idaho, where he located at Florence, in the great gold placer mining camp, and there remained a part of the summer. In the latter part of 1862 he moved to Warren's Diggings, forty-five miles south, and remained in the vicinity of these two camps for fourteen years, all the time engaged in mining. In 1876 he came to Prescott, Arizona, and went to the "Peck" Mine, where he worked four years. In 1880 he went to Mexico, prospecting through Sonora and Chihuahua and other places, but not meeting with much success he returned to what is now New Mexico, forty miles south of Deming, at a noted spring called "Casselero," where he located, took up land and remained two years. Selling out he then came to what is known as "Castle Creek Hot Springs," Arizona, got a patent for the land and has remained here since. He had many exciting adventures with the Indians during his trip across the plains and since, and it is interesting to hear him relate them.

WILLIAM E. THOMAS. Integrity, intelligence and system are qualities which will advance the interests of any man, and will tend to the pros-

perity to which all aspire. William E. Thomas' life has been characterized by constancy of purpose, conscientiousness, undoubted ability and energy, and as a natural result he is one of the substantial men of Maricopa County, and what is better, has the respect and esteem of all acquainted with him. He was born November 8, 1852, in Lynchburg, Virginia, and was educated at Roanoke College, Roanoke County, Virginia. Just prior to graduating he accepted a position as deputy clerk of the County and Circuits Courts, also acted at the same time as deputy recorder, and was thus employed for three years. In 1874 he took a business course at the Bryant & Stratton Business College in Baltimore, Md., and after graduating filled several positions as bookkeeper and assistant bookkeeper. In 1876 he entered into the grocery business with A. Pleasants Webb, under the firm name of Webb & Thomas, and this partnership continued for two years. In the spring of 1880 Mr. Thomas married Miss Hallie Pleasants Orme, a native of Baltimore, Md., and the great granddaughter of General Jeremiah Crabb, of revolutionary fame, and they soon after left for the West. They first located in Leadville, Col., where Mr. Thomas accepted a position in the county recorder's office, but later he became postal carrier for Leadville postoffice. He and wife remained there three years, when on account of the latter's failing health they went to Los Angeles, Cal., and Mr. Thomas accepted a position as bookkeeper with J. J. Mellus, commission merchant. Finding no great improvement had been made in his wife's health during the year that they had resided there, Mr. Thomas sold his property at a sacrifice and on the 5th of October, 1883, left for Phoenix, Arizona. After locating in this place he accepted a position as deputy sheriff under L. H. Orme, and was with him until the latter's term expired. In the meantime Mr. Thomas purchased a ranch, consisting of 160 acres, one and a half miles north of Phoenix, on Central Avenue, and he conducted this with his other enterprises until appointed postmaster, April 1, 1894. He has acted as deputy assessor and deputy recorder several times during his residence here, and is a capable and trusty official. On his ranch Mr. Thomas is engaged in raising fruit and stock, and many lovely flowers surround the home. He has been unusually suc-

cessful in all his ventures. From 1888 to 1891 he was engaged in the real estate and loan business, and was as successful in this as in other enterprises. His life has been a very busy one. To his marriage has been born one living child—Ralph Orme, who is now ten years old. Mr. and Mrs. Thomas are members of the Presbyterian Church.

DR. JAMES MANOAH SWETNAM. The professional career of a skillful and devoted physician ever furnishes material of great interest to all readers, and the life narrative of Dr. Swetnam is no exception to this general statement. He is a native Kentuckian, born in Lawrence County, November 11, 1841, son of James and Rebecca (Osborn) Swetnam, and grandson of Neri Swetnam. He received a fair education in the common schools, and then went West at the time of the Pike's Peak gold excitement, driving an ox team from the Missouri River to the Rocky Mountains for \$10 a month, and being more than sixty days on the trip. From there he drifted south through New Mexico and Arizona to Old Mexico, and later became a citizen of Prescott, the first capital of Arizona, before a house was erected there. He was a resident of that section for nearly two years, and participated in several battles with hostile Apaches. Early in the year 1866 he returned to Denver, Col., making the journey of 1,000 miles on horseback with a single companion, 400 miles of the distance being through a hostile Indian country. During the years 1866 and '67, he attended school and then taught the public school in Colorado City, Col., in 1867-8. In 1867 he commenced the study of medicine in Colorado City under Dr. Robert L. Garland; attended two full courses of lectures at the Department of Medicine and Surgery of the University of Michigan, and was graduated March 30, 1870. He also attended lectures at the Ohio Medical College, Cincinnati, in 1871-2. Dr. Swetnam commenced practicing medicine at Louisa, Ky., in April, 1870, and continued there until October, 1871, after which he located at Kirksville, Mo., where he remained from the spring of 1872 to August, 1882. At the last-named place he began the publication of the "Graphic," a weekly newspaper, and a few months later the "Daily Graphic," and in connection with

John R. Musick, a literary paper called the "Home Treasure," at the same time attending to his medical practice. In 1882 he disposed of his newspaper interests and removed to Omaha, and was one of the chief movers in organizing the Douglas County Medical Society, filling the presidential chair during 1883. Dr. Swetnam is now a member of the Nebraska State Medical Society, and the American Medical Association; a member of Apperson Lodge, No. 195, A. F. & A. M., Louisa, Ky., and Union Pacific Council, No. 1,069, Royal Arcanum, Omaha, Neb. The years 1887 and 1888 the doctor spent in travel in the United States, Canada and Mexico, and in May, 1889, again resumed the practice of medicine in Omaha. From there he moved to Phoenix, Arizona, in November, 1894, and is now engaged in the treatment of diseases of the chest and stomach as a special practice. Dr. Swetnam was first married October 21, 1871, to Miss Laura P. Ferguson, at Catlettsburg, Ky. She died of consumption in February, 1886, leaving one daughter, Nellie. His second union occurred October 21, 1877, with Mrs. Nellie E. Brockett, at Augusta, Kan., who died in December, 1879. On the 27th of December, 1887, the doctor married Mrs. Mae E. Black, in Omaha, and they have one child, Louise.

FRED O. RICHMOND. Love of the horse is a mark of human kindness. Fondness for the animal has resulted in the development of the distinctive American horse, which bears but little resemblance to its Barb ancestor. The trotter and the thoroughbred, in beauty and in speed, hold their own with the best that any country can produce. The profession of the veterinary surgeon brings him daily opportunities of manifesting a humane spirit toward man's most obedient and faithful friend, the horse. One of the most humane and careful men who has met with well deserved success in this calling is Fred O. Richmond, veterinary surgeon and secretary of the Live Stock Sanitary Commission. Mr. Richmond was born in Dane County, Wisconsin, December 12, 1854, on a farm, and there made his home until nineteen years old. From there he went to Mower County, Minnesota, farmed for three years and then went to Kansas, where he made his home for fifteen years. Most of the time he was

engaged in farming, but also turned his attention toward merchandising, engineering, etc., being employed for some time by the Gregg Bros. Grain Co., of St. Joseph, Mo., to buy grain and run their elevator at Sabetha, Kan., later on running an engine in a large flouring mill. He had received a thorough education, having completed his education at Ripon College, Ripon, Wis. In 1890 he went to Chicago and entered the Veterinary College there, graduating with honors in the class of 1893. In September of the same year he moved to Phoenix, Arizona. He practiced while in that city, and on the 5th of May, 1895, he was commissioned as above stated. He practiced first in Kansas and then in Arizona. The clerical work consists of doing the work for 100 brand inspectors, keeping them supplied with necessaries for their office, keeping an account of all stock shipped out of the Territory, all estrays sold, and using every effort to get the money to the rightful owners. All stock shipped in must also have his sanction to prevent disease. Working under the Sanitary Commission he states whether stock shall be brought in or not. He has a general supervision over the health of the stock of all description in the Territory, and in addition to this he has a large private practice. On the 22d of October, 1876, Mr. Richmond was married in Mower County, Minnesota, to Miss Hattie Millett, and they have two interesting children—Madge P. and Forrest L. Mr. Richmond is a member of the Chicago Veterinary Medical Association. While in Kansas he was a member of the board of the Sabetha National Bank, and on removal to Arizona he there became a member of the board of the Phoenix National Bank, and was also elected secretary of the Trask-Kessler Grocery Company. As an evidence of his professional ability he numbers among his patrons the best horsemen in the Territory. Having ever the interests of the speechless animals at heart, he is endeavoring to organize a thoroughly equipped humane society to prevent the abuse of the dumb animals that is too common in all countries.

DR. D. M. PURMAN. In the learned professions Phoenix, Arizona, has many noted representatives, and this particularly so in the field of medical science. In a review of this kind it will be readily understood that only the most

conspicuous figures in a representative class can receive special mention, as illustrating the march of progress and the degree of perfection that has been reached in the healing art. Few, perhaps none, save those who have trod the arduous paths of the profession, can picture to themselves the array of attributes, physical, mental and moral, and host of minor qualities essential to the making of a great physician and surgeon. His constitution needs must be the hardest to stand the constant shock of wind and weather, the wearing loss of sleep and rest, the ever gathering load of care, the insidious approach of every form of fell disease to which his round of duties momentarily expose him. One of the conspicuous figures in the medical profession of Arizona is Dr. D. M. Purman, who is a native of Allen County, Indiana, born near Monroeville in 1857. His parents, Samuel and Rosa (Champer) Purman, were natives of Virginia and Ohio respectively. On the Champer side of the house many of the ancestors were professional men and William Champer, in 1856, when twenty-six years old, was elected Judge of the Supreme Court of Ohio after a vigorous campaign, but died soon afterward. He was one of the most brilliant lawyers of his day. There were two physicians in the family. Our subject's great-great-grandfather on the mother's side was a soldier in the Revolutionary War. The father of the doctor was a self-made man, one of those men whom the American people have always delighted to honor. Garfield drove a canal mule, and afterward became President. The tannery experiences of Grant, the rail splitting of Lincoln are familiar to the world. Mr. Purman started life as a shoemaker, and from the age of fourteen years supported his widowed mother and seven younger children. He gave his brothers classical educations, and one of them, A. A. Purman, became an eminent lawyer of Pennsylvania. Another brother, J. J. Purman, is a practicing physician of Washington, D. C. Mr. Purman moved to Indiana in 1854, settled in Allen County and purchased large tracts of land. He carried on farming until 1858, after which he returned to Ohio, and in 1869 again returned to Allen County, Indiana, where the remainder of his days were passed. He became deeply interested in manufacturing, in connection with his large farming interest, and in 1874 pur-

chased the Caledonia Stave Manufacturing Establishment at Belmore, Ohio. This is one of the largest institutions of the kind in the world, and he carried on an enormous business for several years. His death was caused by rheumatism of the heart in 1887, and after a long and useful life he passed to his reward. Mr. Purman was noted for his liberality, goodness of heart and genuine worth, and had no enemies. Mrs. Purman is still living, and is bright and active for her seventy-five years. Of the family of nine children born to them, seven are now living—A. A. Purman is a prominent attorney and railroad builder of Ft. Wayne, Ind.; D. C., of Monroeville, Ind., is engaged in the manufacture of felloes and spokes; Flora, wife of Mr. Hardesty, of Paulding, Ohio; Mrs. John M. Tryon, of Monroeville, Ind.; S. B., of Indianapolis, where he is connected with the Adams Express Company, and J. N., of Montpelier, Ind., where he is engaged in merchandising. Dr. D. M. Purman, the third of the living children, grew to manhood in his native county, and received a liberal primary education. Later he entered Taylor University of Ft. Wayne, Ind., and after this for some time was in the office of Dr. S. B. Woodruff (now deceased), of Ft. Wayne. In 1875 he entered the College of Physicians and Surgeons, and was graduated in 1877. Following this he practiced for some time in Ft. Wayne, and later graduated from the Medical College of Indiana. Following this he spent two years in study in New York City, and then for four years was in Ft. Wayne, where he practiced his profession. From there he went to Indianapolis and had a most successful practice there until 1894, when he came to Phoenix, Arizona, on account of his wife's health. The doctor had a very extensive practice in Indianapolis and was Medical Director-in-Chief of Masonic Insurance Company of that city for several years. He has never sought public offices, but has given his undivided attention to his practice, and has profited thereby. He has the largest practice of any physician in the Territory, and is a noted surgeon. Socially the doctor is a thirty-second degree Mason, Knight Templar and Mystic Shrine, and a member of the Knights of Pythias. He is also a member of the County, State and American Medical Societies. In politics he is an ardent Republican. In the year 1881 he married Miss Mary E. White,

of Kokomo, Ind., and they have one bright son, Thomas H. Dr. and Mrs. Purman are members of the Presbyterian Church. In April, 1896, Dr. Purman, in partnership with Dr. Ansel Martin, opened the finest sanitarium in the West. This has twenty-two finely furnished rooms with first-class accommodations, and meals are served in the house.

DR. CARROLL M. RAWLINGS (deceased). During the early part of the War of the Rebellion, on the 15th of February, 1862, Carroll Monroc Rawlings was born in Washington, D. C. His early childhood was passed at the old suburban homestead. When but eight years old he was left fatherless, and his mother, with her five little ones, left the large estate to live in the city of Washington. Here his career in the public schools began, and he was conceded by his teachers to be one of the hardest boys to manage in his classes. When he had reached the age of eleven years his mother died, leaving him and the other children in the care of their uncle and guardian, H. J. Bright. After struggling patiently to control him, his uncle, after many anxious consultations with Mrs. Bright, decided that the public schools were not strong enough to hold the boy, and it was determined to send him to a school of strict military discipline. Bethel Military Academy of Fauquier County, Virginia, was selected, and here he was placed at the age of twelve years, remaining five years. Here, under the judicious training of Major A. G. Smith, his superabundant energy and vivacity were directed in channels profitable to himself in after life, and here the foundation of his business career was formed. When seventeen years old he took a private course of study for two years, and when nineteen, under the preceptorship of Dr. Francis A. Ashford, the leading surgeon of Washington, he began the study of medicine. For two years he was visiting student at the Children's Hospital, and also the Emergency Hospital. During the third year of his medical course he was resident student at the Washington Asylum Hospital, and after receiving his diploma was appointed physician at the Round Valley Indian Agency in Northern California. After residing there a year and finding no school of medicine, he traveled through Southern California and Northern Mex-

ico, and thence to Washington to further post himself in his profession. After reaching home he was appointed resident physician at the Washington Asylum Hospital, in conjunction with which position he was Demonstrator of Anatomy in the University of Georgetown until 1888, when he married. A great longing for the West seized him, and he decided to return to the Pacific coast, and selecting Spokane Falls, Washington, as a place likely to afford an opportunity for a physician, he located there and was soon engaged in a profitable practice. While there he was one of the six staff officers of the Hospital of the Sacred Heart, a large Catholic institution; secretary of the United States Board of Pension Examiners, city health officer of Spokane and surgeon to the construction department of the Spokane & Northern, and the Lake Shore & Seattle Railroads. While there he organized the Medical Society of Spokane. His arduous duties, combined with a severe attack of la grippe, were too much for the doctor, and during the spring of 1890 his health became much impaired and consumption developed. After trying a summer in British Columbia with no permanent benefit he decided to seek a more congenial clime, removing south to Nature's sanitarium, the Valley of the Salt River. He located at Phoenix, Arizona. Here after a few months he was sufficiently restored to engage in the real estate business, and the firm of Rawlings & Squires was inaugurated. It was owing to the energy and untiring efforts of this firm that the Orchard Grove Improvement Company, capital stock of \$25,000, was organized, being the first company of its kind in Phoenix. Doctor Rawlings' restoration to health was but temporary, and his death occurred December 1, 1894. His remains are interred at Phoenix. He was married in Washington City in 1888 to Miss Mary G. Stoutenburg, a native of the Empire State, born in Dutchess County, on the Hudson. To this union was born three children, Virginia, Walter S. and Carroll E.

DR. J. A. MUNK was born in Ohio in 1847. He enlisted in his sixteenth year in the 178th regiment of Ohio Volunteer Infantry, and served in the army until the close of the war. After returning home he studied medicine and graduated in 1869 from the Eclectic Medical Institute of Cin-

cinnati, Ohio. He has practiced medicine ever since, for a number of years in Topeka, Kansas, and later in Los Angeles, California, where he now resides, and stands eminent in his profession.

He became interested in Arizona in 1883, when he joined his brother, Judge E. R. Monk, in the ranch and cattle business at Willcox. Since then he has made annual trips to the Territory and spent much time in studying its history, climate and resources. He has written many newspaper and magazine articles on Arizona, and has collected a large library on Arizona, which now includes more than 400 titles.

JOHN H. BURGER, now an honored and much respected resident of Phoenix, Arizona, was one of the pioneers of that territory, and many and varied have been the experiences he has undergone. He was born in Smithburg, Washington County, Maryland, February 13, 1830; son of David and Leah (Ricksecker) Burger, natives of Maryland. The Burgers, for the most part, have been farmers and distillers and the Rickseckers confectioners. In addition to his duties as an agriculturist David Burger was also a contractor and joiner, and followed his trade in Richland County, Ohio, for a number of years, his boys working the farm. John H. Burger, one of thirteen children, six sons and seven daughters, remained in his native village until ten years old and then went with his parents to Richland County, where his spare moments were spent in assisting on the farm and in attending the common schools. He learned the carpenters' and joiners' trade of his father, followed this until 1848, and then went to Iowa City, Iowa, where he learned the millwright trade. After working at this for about a year and a half he went to Crawfordsville, Iowa, and was engaged in carpentering for two years. He left that state in 1853 and with a train of twenty-seven wagons crossed the plains to California, and worked at his trade in Sacramento and Marysville for one summer. Later he began mining on Park's Bar, on Feather River, but worked for other people but a short time, when he began prospecting for himself, following mining on his own account until 1858. He met with good success, but at the time of the gold excitement in British Columbia, in the last named year, he went there, and was one of the

pioneer miners of that section. They were obliged to carry all their utensils, etc., over one hundred miles. Mr. Burger remained in British Columbia for five years, and met with unusual success. From there he went to San Francisco and later mined on Owen's River, Inyo County, California, until the fall of 1864, when he went to Prescott, Arizona, where he began making pickets, shingles, etc., up in the pine timber. This did not pay him and he began prospecting. About this time he heard of the Vulture mine, which was then just opening up, and he went there and found work in putting up stamps for the purpose of crushing ore. These were run by horse power. He put up the first stamp for the Vulture mine. Later he went to Bully Bueno mine, but not being suited he made his way from there to Placer City, near Walnut Grove, where he opened several mines, none of which paid. After this he gave up mining and went to Walnut Grove, where he engaged in ranching for three years. He put in his grain with a gun strapped to his plow and his pistol in his belt, but the Indians would come into the field while he was at one end and steal the seed which had been left at the other end. Leaving that ranch he went to what is now known as Antelope Valley and opened up land and had about twenty acres ready for planting when his provisions got low. He started with another man to Wickenburg for a fresh supply, and on the way they were attacked by Indians. His companion was killed at the first shot, and although Mr. Burger fought with all the energy of despair the Indians seized his gun from him and shot him through the thigh and fired four balls into his side, one of which he carries at the present time. He managed to evade them and succeeded in reaching some rocks, where he was in comparative safety. He killed two Indians and crippled another, which caused them to fall back and gave him a chance to hide. The Indians kept shooting at him at long range, but he was finally rescued by a party of white men and carried to the nearest cabin, four miles away. Eight months elapsed before he had recovered sufficiently to try to work again. He never returned to his ranch, but went to the Vulture mine and hired out as a carpenter, remaining there for some time. He was promoted to a mining boss, a position he held until the mine broke up, when he worked at wagon-

making at Wickenburg until February, 1873. He then came to Phoenix and has made his home here since. For a number of years he worked at blacksmithing and wagon-making, but now has his shops rented and has been engaged in mining and ranching for several years past. He is interested in several mines on Humbug Creek, some of which are now being worked on a small scale, but prospects are good. Mr. Burger is interested in eleven claims, all of which are very promising. He also owns considerable property in Phoenix, and is in very comfortable circumstances indeed. Mr. Burger has had many thrilling experiences with the Indians in the early days of the territory and once, in an encounter with them, was left on the ground for dead. As has been shown, he has had some very narrow escapes, but luck or Providence has ever been with him. Mr. Burger was married first in Crawfordsville, Iowa, in 1850, to Miss Martha Riley, and they had one child, Levi, who resides in Salt River Valley. Mr. Burger's second marriage occurred in 1874 to Miss Elizabeth Morrell, by whom he has had five children, three now living—John H., twenty years old; Elizabeth, now sixteen, and Vera, aged sixteen months.

GENERAL GEORGE J. ROSKRUGE. The sons of Old England are well represented in Arizona and among them none hold a more conspicuous place than does General George J. Roskruge, whose determination and perseverance mark him as a true Englishman. He was born at Roskruge, near the town of Helston, Cornwall, April 10, 1845. At the age of fifteen he obtained a place as messenger boy in the law office of Messrs. Grylls, Hill & Hill, of Helston, and on the 12th of August, 1860, he entered the 7th Company of the Duke of Cornwall's Rifle Volunteers, serving ten years, during which time he distinguished himself as a rifle shot, being the winner of many company, regimental, and all-comers' prizes. On the 31st day of August, 1868, he was selected as one of the "Cornish Twenty" to compete with the "Devon Twenty" in the fourth annual match for the Challenge Cup, and for the two years prior to his resignation from the volunteer service he wore the "Three Stars," for being the crack shot of the company. In October, 1870, he emigrated to the United States, going direct to Denver, Colorado, where

he was given employment by Lawrence N. Greenleaf and his partner, Gardner G. Brewer. After remaining in Denver for about two years he, with about twenty other adventurous spirits, determined to visit Arizona, and after surviving perils of flood, droughts, famine and Apache Indians, reached Prescott in June, 1872. In November of the same year he engaged with United States Deputy Surveyor Omar H. Case as cook and packer, and was with Mr. Case when running the 5th standard parallel north from Partridge Creek to the Colorado River. The following spring he, as chainman, served with Deputy Case, and the following year, 1874, he spent several months in the field with United States Deputy Surveyor C. B. Foster, and on returning from the field he prepared the maps and field notes for transmission to the surveyor general, and it was on account of the neat and correct manner in which these were executed that induced the then surveyor general of Arizona, Hon. John Wasson, to tender to General Roskruge the position of chief draughtsman in his office, which position was accepted and filled by him with credit to himself and the appointing power until June, 1880, when he resigned and entered into business as a surveyor, receiving appointments as United States deputy land and mineral surveyor. General Roskruge has served four terms as county surveyor of Pima County; three terms as city engineer of Tucson; one term as member of the board of regents of the University of Arizona; in 1888 was elected vice-president, and in 1889, as president of the Tucson Building and Loan Association. On the 1st of July, 1893, he accepted the position of chief clerk in the United States surveyor general's office and upon the resignation of the surveyor general in 1896, was by President Cleveland appointed surveyor general, the position he now holds, an honor fittingly bestowed on a worthy official for long and faithful service rendered his adopted country.

The General is a prominent member of the Masonic Fraternity. He was on June 10, 1870, made a Master Mason in "True and Faithful" Lodge No. 318, Helston, Cornwall, England. On November 30, 1882, was exalted to the Sublime Royal Arch Degree in "Tucson" Chapter No. 3. On August 27, 1884, admitted and passed as a Royal and Select Master in "California" Council

No. 2, San Francisco, California. On May 1, 1883, created a Knight Templar in "Arizona" Commandery No. 1. August 24, 1884, was elected an honorary member of Tucson Lodge No. 4. April 11, 1883, was for eminent services rendered the craft elected an honorary member of the Masonic Veteran Association of the Pacific Coast, and on October 21, 1893, was elected an active life member and Corresponding Secretary for Arizona.

In September, 1884, after many days of weary travel in a westerly direction, over the burning sands of the desert, the General found rest and repose in the shady courts of Islam Temple, A. O. N. M. S.

During the month of December, 1882, he received the degrees of the Ancient and Accepted Scottish Rite, from the fourth to the thirty-second inclusive. In October, 1890, he was, by the Supreme Council for the Southern Jurisdiction of the United States, elected a Grand Commander of the Court of Honor, and on January 24, 1894, was crowned Sovereign Inspector General (honorary). He was on the 28th day of November, 1895, by M. E. W. LaRue Thomas, Grand Master of Knights Templar of the United States of America, appointed inspector of Grand and Subordinate Commanderies for the 15th Templar District of the United States, embracing Nevada, Utah, New Mexico, and Arizona. At the formation of the Grand Lodge of Arizona on March 23, 1882, he was elected grand secretary, serving continuously up to the present time with but one exception, 1890, when he was elected grand master. He also, as proxy for M. E. David F. Day, General Grand High Priest of the United States, on the 12th of November, 1890, instituted the Grand Chapter R. A. M. of Arizona and installed its grand officers, he himself being elected Grand Secretary, which position he has filled to date, with but one single exception, 1893, when he served as Grand High Priest. He also, as proxy for M. E. Sir Hugh McCurdy, Grand Master of Knights Templar of the United States of America, on the 16th day of November, 1893, instituted the Grand Commandery of Arizona and installed the grand officers, he himself being elected Grand Commander. He is the only Mason who was present and assisted in the formation of all three grand bodies in Arizona.

Mr. Roskruge now holds the following active offices in the Masonic Fraternity, viz:

Secretary of "Tucson" Lodge No. 4, F. and A. M.

Secretary of "Tucson" Chapter No. 3, R. A. M.
Deputy Master "Tucson" Council No. 3, R. and S. M.

Venerable Master "Santa Rita" No. 1, Lodge of Perfection.

Eminent Commander of "Arizona" Commandery No. 1, K. T.

Corresponding Secretary Masonic Veteran Association, Pacific Coast.

Treasurer of the M. E. Order of High Priesthood.

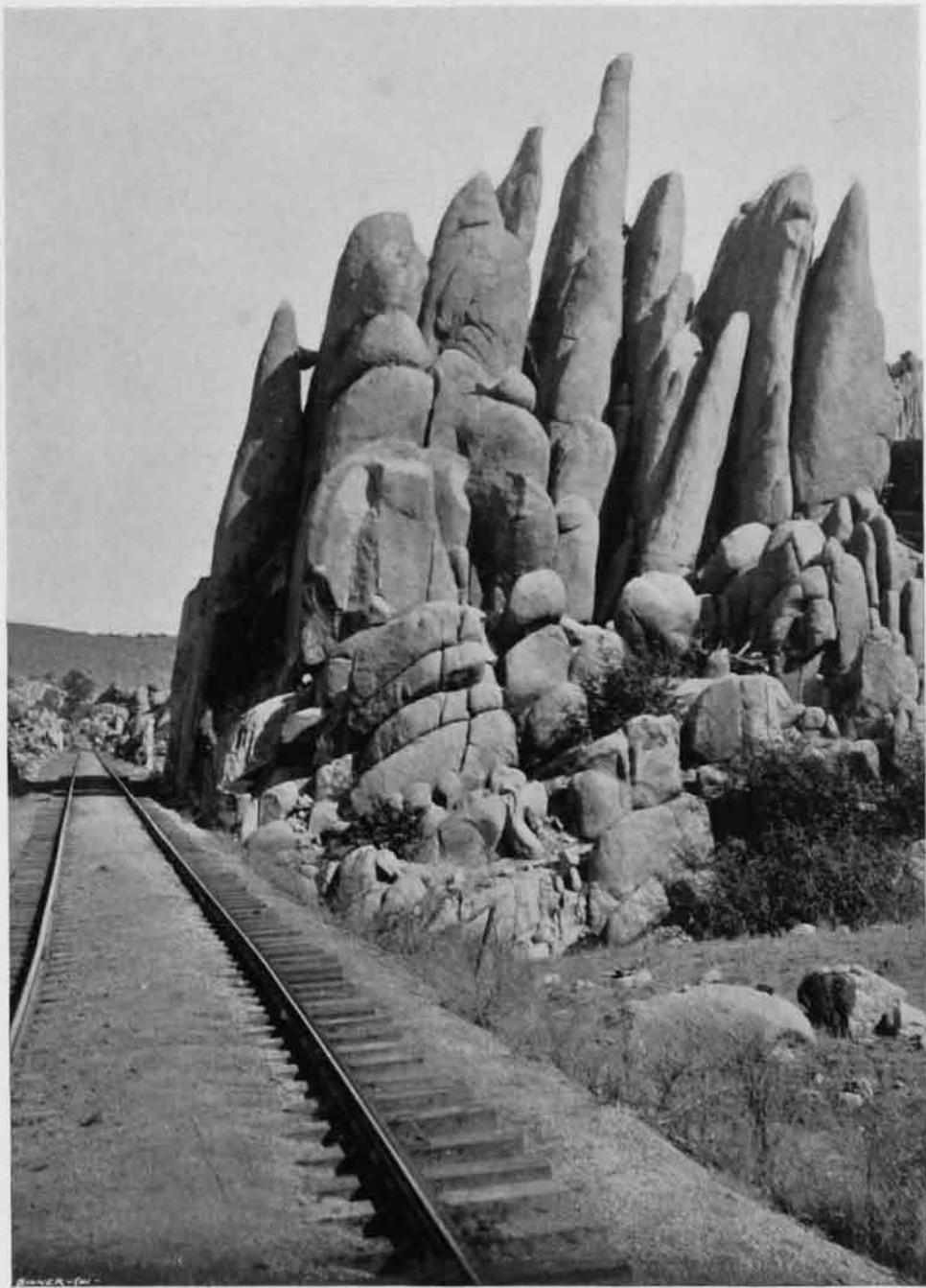
Grand Secretary of the Grand Lodge and Grand Chapter.

Grand Recorder of the Grand Commandery.

To the thoroughly strict business education received during the period of ten years spent in the law office of Messrs. Grylls, Hill & Hill, coupled with his early military training, may be attributed the General's success in life, for in all his undertakings, whether as clerk or citizen, soldier in the mother country, as an employe in the service of his adopted country, or as a Mason disseminating light amongst his less informed brethren, the General at all times has faithfully striven to live up to the good old proverb: "Whatever is worth doing at all is worth doing well," and by pluck and perseverance so characteristic in his countrymen he has overcome the difficulties that so often beset the path of the pioneer, and has made for himself records of which he has full right to be proud.

In the early days of his sojourn in the land of his adoption the General's life was not altogether laid in pleasant places, neither were the good things of this world always his; and many a time he had to "take up another hole in his belt." The following are samples where the tightening process was used.

In 1870, when he, with a companion, left New York for Denver and not having a large surplus of cash, they laid out \$1.50 in cheese and crackers, which provision, with the addition of a ten cent loaf bought at Omaha, lasted five days until they got to Denver, and their first meal in that city was made off the remnants of the cheese and crackers. Whilst in Denver, during the month of February, 1871, the General being out



POINT OF ROCKS, SEVEN MILES NORTH OF PRESCOTT, ON THE LINE OF THE S. F. P. & P. RAILWAY

of work and funds, borrowed a dollar from a friend and with it purchased tickets good for seventeen loaves of Graham bread. On this kind of food he existed for ten days, and shortly after entering Arizona, being camped at Volunteer Springs, now Belmont, on the A. & P. R. R., he, with three companions, after partaking of a breakfast consisting of twelve (early Rose) potatoes, these potatoes being the last of their provisions, started to walk to Prescott, and three and one-half days after, on Sunday morning, reached Mr. Banghart's, in the Little Chino Valley, where they were provided with a square meal, being the first food that had passed their lips in eighty-four hours.

He is 52 years of age, above medium height, and turns the scales at 130 lbs. This lack of avoirdupois may well be attributed to his having to so often "take up another hole in his belt."

CASSIUS M. FRAZIER. A few years witnesses many changes in the life of an American city, where the prevailing motto would seem to be, "Leave the things which are behind and cleave to those which are before." New firms start up, new for a season and then pass away, their very names forgotten. New streets are opened, old houses leveled and new ones spring up everywhere. All the time the spirit of growth extends in every direction and men find it difficult to keep pace with the development. Among those who have kept pace with the times is Cassius M. Frazier, one of the able attorneys of Phoenix. He was born in Henry County, Iowa, November 13, 1852, and is a son of Elihu and Orpha (Pigeon) Frazier. Both families were early settlers west of the Mississippi River, and Grandfather Pigeon was one of the first pioneers of Iowa. Both the Fraziers and Pigeons were Quakers in their religious views and Grandfather Frazier was a noted Quaker preacher, traveling all over Indiana and the South and preaching the inhumanity of slavery. Both families settled west of the Mississippi some time in the thirties and all were agriculturists. Cassius M. Frazier attended the common schools in his youth and a Quaker school, Whittier College, where he received a thorough education, having graduated therefrom. Afterwards he taught school for years, and became principal of the Pilot Grove Academy, which he conducted for four years.

While teaching he studied law and later entered the office of John Van Valkenburg, with whom he studied for some time. In 1881 he was admitted to the bar and commenced practicing at Silverton, Colorado, remaining there until 1893. During the time that he resided in Silverton he was elected county attorney seven or eight times and also held the office of city attorney about the same length of time. He was chairman of the Republican county central committee for several terms, a member of the Republican State central committee for years, and was a man of prominence and influence. He is for McKinley for President. In 1893 he came to Phoenix, Arizona, practiced alone one year and then united with Judge Webster Street in the practice. They have since been together and have a fine practice. Mr. Frazier is chairman of the Arizona Republican League Club of Phoenix, being elected unanimously to that position in 1895. Fraternally he is a high degree Mason, takes a deep interest in the affairs of the fraternity and is also an A. O. U. W. and a K. P. Mr. Frazier was married August 17, 1875, to Miss Belle Coleman, of Iowa. They have four interesting children: Claire, Jessie, Orpha and Helen.

A. J. HOSKIN. This substantial, intelligent citizen and wide-awake man of affairs has been a resident of Maricopa County, Arizona, since 1876, and is one of the prominent stock raisers of his section. Like many others of the representative citizens of the county Mr. Hoskin came from the East, his birth having occurred in Marion County, Missouri, April 19, 1854. His father, Armsted Hoskin, a native of Kentucky, and his mother, Sarah (Sanders) Hoskin, a native of Virginia, moved to Missouri at an early date and there the father followed farming, which has continued to be his chosen calling through life. He is still living and resides on the old place in Marion County, Missouri. A. J. Hoskin was initiated into the duties of farm life at an early age and was fortunate in receiving a good, thorough education in St. Paul College at Palmyra, Missouri. In the month of March, 1875, he started for California and stopped at Moro for a short time. Leaving there July 13, 1876, he landed at Phoenix, September 5, of the same year. Mr. Hoskin made the journey in wagons and although he encountered the Yuma Indians

en route, he had no serious trouble with them. On arriving here he engaged in ranching near Phoenix, met with excellent success, and continued this industry in the valley until 1881, when he went to the mountains. He began stock raising at Cave Creek and there he has since remained, actively engaged in this calling. He was appointed live stock inspector for the Phoenix district and is at present fulfilling the duties of that office. For two years he had the contract for carrying the mail from Phoenix to Cave Creek, and he has been a delegate to every Democratic convention held at Phoenix since 1882. Although he has taken a great interest in the welfare of his party Mr. Hoskin has never been a candidate for any office. He was one of the first white settlers in Cave Creek, has experienced many hardships, for he had but few neighbors, and is a man universally respected. Mr. Hoskin was married in 1879 to Miss Jennie Stover, a native of Ohio, and they have seven children: Allen, Agnes, Ernest, Clarence, Florence, Virginia and Lucy. In his social relations Mr. Hoskin is a member of the A. O. U. W. He and wife, son and daughter are members of the Baptist Church and he was instrumental in bringing the first church bell to Phoenix. It now hangs in the dome of the M. E. Church at that place.

JUDGE EDWARD R. MONK. Judge Edward R. Monk, one of the pioneer cattle men of Arizona, is justly recognized as a man of superior ability, force of character and determination. He is a native of Stark County, Ohio, born January 31, 1855, and of German origin, inheriting all the thrift, enterprise and perseverance of his Teutonic ancestors. Judge Monk had excellent educational advantages in his youth. After a thorough course in Union College he entered Michigan University, from which he was graduated with the degree of M. A., and admitted to practice law before the Supreme Court of the State of Michigan in 1876. For a number of years after this he practiced his profession in Des Moines, Iowa, and St. Louis, Mo., but failing health caused him to give up his practice for some time. He went to Arizona, engaged in cattle raising at Willcox, Cochise County, and, being a good deal in the saddle, his health soon improved. Aside from the cattle business the

Judge became interested in mines and is part owner of one in Cochise County. In 1886 he was elected county judge of Cochise County, and re-elected in 1888, serving until 1890. In December, 1893, he was appointed receiver of the Tucson land office and regent of the university in 1895, at the session of the 18th Legislature. He is also a member of the Civil Service Examining Board of Arizona—postal and Indian service. He practices law in connection with all these other duties and his life is an extremely busy one. His brother, Doctor Monk, of Los Angeles, Cal., has one-half interest in all our subject's enterprises in Arizona. Both are wide-awake men and useful citizens.

OSTRICH FARMING IN ARIZONA. The ostrich farm of J. Harbert is situated four miles northwest of Phoenix, on what is known as the Alhambra tract, and within one-half mile of Alhambra station on the S. F., P. & P. R. R., where there is a thriving little town situated in the heart of the country and only two miles from the end of the street car line from Phoenix. The daily attendance at school is 35. It has a large warehouse, 75x150, storehouse, blacksmith shop and two other places of business. In interviewing Mr. Harbert, we give his experience in ostrich farming in his own words. He says:

In the spring of 1891 I started with one pair of ostriches worth \$600, which have increased until they now number 69. I raised them on alfalfa, not feeding anything else but bone and gravel, except the breeding birds; these are fed about a pint of corn apiece per day. It requires about ten acres of alfalfa in the growing season to keep the flock, and the last crop on about the same amount of ground to carry them over the winter. The birds are all well grown and healthy, no disease whatever among them. I have never lost one yet from disease, but lost two or three by getting cut on a wire fence. I think we have the best climate (for ostriches) in the United States, being warm, dry and free from fogs. Men from Africa inform me that they never saw better birds in that country. Many of the birds in my flock will, I think, weigh from three hundred to three hundred and fifty pounds each. When the birds are six months old we make the first plucking of feathers, and every eight months thereafter, averaging a pound

of feathers to the bird at each plucking. Feathers bring on the average about \$20.00 per pound, and would bring double that sum if manufactured by ourselves, as the feathers after passing through the hands of expert feather manufacturers, readily sell at a large margin. Eggs that do not hatch are blown, and we sell the shells at \$1.00 to \$1.50 apiece, and have always sold all we had of this kind. The gate fees have paid for taking care of the birds, leaving the increase and sales of feathers and egg shells clear profit.

The hens do not generally lay until they are four years old, and there is no certainty of the eggs hatching, as they do not seem to be fertilized, but the eggs laid when the hens are five years old generally hatch. The cocks alternate half and half time in setting on the nest in shifts of twelve hours each during the hatching season. The eggs hatch in six weeks. I have eight hens that will commence laying this season.

During the time I have been engaged in ostrich farming, I have sold about \$3,300.00 worth of feathers and egg shells. I consider the pair I started worth \$600.00 at the time, and I consider the flock now worth \$8,000.00, and they have not cost me a cent in taking care of them.

Value of birds at present.....	\$8,000
Receipts for feathers and shells.....	3,300
Total	<u>\$11,300</u>
Cost of two birds at start.....	\$600
Interest on same four years.....	288
Total	<u>\$888</u>
Balance for pasturing	\$10,412

I think I am now prepared to go into ostrich farming right, and ready to raise birds, as having only one pair to start with made it slow work. It will cost but little more to care for a thousand birds than what I have got. I consider every bird I have worth to me \$30.00 per year in cash. I will sell the birds and farm or the birds alone, as I am getting too old to look after them.

J. HARBERT.

FRANCIS C. HATCH. The State of Vermont is always suggestive of the honest, hard and rugged characters in human life. It presents to the mind pictures of the bold Green Mountain Boys and brave Ethan Allen before the gates

of Ticonderoga. It was people like those who won their independence from the British king and erected the basis of the great American nation. It is their descendants who have come out in the West and formed the nucleus of a great territory and a great people. Francis C. Hatch came of this stock. He was born at Woodstock, Vermont, October 10, 1856; son of Philo and Elizabeth (Fitch) Hatch. The father was a business man in Woodstock and held prominent positions in his town. He was a man of very strong character and was well known and respected. His death occurred April 10, 1882, but the mother is still living and a resident of the old home place. Although in her eightieth year she enjoys exceptionally good health and is remarkably well preserved. Of the four children born to them only one besides our subject is now living, Elizabeth, wife of Hon. William E. Johnson, of Woodstock, who is one of the leading lawyers of Vermont. Francis C. Hatch, the youngest of the family, reached mature years in his native town and there received his early scholastic training. In 1876 he entered Norwich University, the oldest military college in the United States with the exception of West Point, and remained there a part of four years. He then traveled over Europe for a year and a half and after returning studied law with his brother-in-law, Hon. William E. Johnson, and was admitted to practice in the courts of Vermont in 1880. Later he entered the law office of Smith, Wellington & Black, of Troy, New York, but subsequently gave up the practice of law entirely and lived for some time in New York City. In the fall of 1882, after the death of his father, Mr. Hatch started for California but stopped off at Prescott, Arizona, where he remained until the following spring. After extended trips through Old Mexico and California he located in Visalia, California, and became interested in the stock business, which he followed for two years. Prior to this, early in 1883, while on a visit back to Arizona, he took up his legal residence in Phoenix, and this he has since called his home. In 1884 Mr. Hatch was appointed aid to the staff of Governor Tritle and during the legislature of that year he was appointed by the governor director of the insane. With the board of directors, consisting of Hon. M. W. Stewart of Wilcox, and Dr. Oscar Lincoln of Prescott, he built the pres-

ent Insane Asylum, three miles east of Phoenix, and this is one of the finest public buildings in the territory. In the fall of 1885 he associated himself with ex-Governor F. A. Tritle, of Prescott, and Col. James H. Drake, of St. Paul, in the cutting and polishing business, introducing into the markets the far famed Arizona petrified wood. Since that time he has been connected with the house of Drake & Company, of St. Paul, and their polishing works at Sioux Falls, South Dakota, visiting Europe in 1887-89 and 1890. He spent the larger part of these years in that country and created during the Paris Exposition of 1889, and at the World's Fair in Chicago, quite an excitement over the petrified woods. At Paris he held the commissionership from Arizona under the appointment of Gov. Wolfley. Mr. Hatch is interested in other enterprises in the East and in Costa Rica, Central America. In the month of January, 1896, he was elected director general of the Phoenix Carnival Association. He is still a single man and a member of the Bohemian Club of San Francisco, the Maricopa Club of Phoenix, Republican Club of New York City, Woodstock Club, and the Lacota Club, which is a fishing, hunting and sporting club near Woodstock, Vermont. He has always been a great social leader and his friends are legion. The colonel is a Knight Templar, of the Masonic Fraternity, and a member of the Mystic Shrine. In politics he is a Republican.

L. ZECKENDORF & CO. In measuring the resources of a country it is well enough to speak of its mining and agricultural interests, etc., but there is one true barometer to which we turn, and which will surely indicate the pulse of the people. No sooner does the Aeronoid barometer indicate the varying conditions of the atmosphere, than does the mercantile barometer point out the true state of the country. In judging of the condition of a locality one naturally looks to the best instrument to be found and this would lead to the one that has been tried and proved true, to the one that has seen the longest service. In looking around for a representative mercantile concern, we are immediately referred to the well known and renowned firm of L. Zeckendorf & Co., established in Santa, New Mexico, in 1854, and since 1866 in Tucson. Here, from a

small beginning, has now grown one of the largest and most prominent commercial enterprises in the Southwest. They carry a stock of general merchandise consisting of almost any and everything required in this section of the country. They sell at both wholesale and retail, and distribute their goods all over Southern and Central Arizona and Sonora, Mexico. These vast sections of country are visited regularly by representatives of the concern, and no city or hamlet, however large or small, exists in this district but what does more or less business with this concern. Through buying all their goods in large quantities, direct from factories and first hands, they are enabled to distribute them again not alone in competition with other large jobbing centers, but in many instances it is a positive advantage for the trade, to draw their supplies from them, both on account of the prices and the time saved in delivery of same. Their business is divided off into departments, much after the fashion of the modern department store seen in our large Eastern cities, and the management of each department is under a competent and trustworthy manager, who is held responsible for the result of same. The principal departments consist of shelf and heavy hardware, agricultural implements, paints and oils, tin and hollow ware, groceries and provisions, dry and fancy goods, clothing, gents' furnishing goods, boots and shoes, furniture, carpets, wall paper and shades. On entering the main store, corner Main, Pennington and Pearl streets, one is at once surprised at the vastness and large supplies of goods carried in each department, and one asks how it is possible to dispose of such quantities of goods in a town the size of Tucson. When one learns, however, the territory tributary to Tucson, and takes into consideration the trade that depends on supplies from this point and this firm in particular, it is easily explained. The main store is 85x188 feet, one story and basement. The space from floor to ceiling is 20 feet about midway. A gallery with shelves encircles the entire space so that no room is lost and every available space is utilized by the various lines of goods carried. The front part of the store is designated for retailing, and the back part for wholesaling. Convenient rooms for shipping, receiving rooms and also offices are distributed in the building. On the opposite cor-

ner a building 65x150 contains the furniture department. This is under the separate management of Mr. E. W. Bowers. In this store is carried a large line of furniture and upholstery goods, carpets, oil cloths, linoleum, mattings, rugs, shades, pictures, oil paintings, wall papers, all to suit the taste and purse of almost everybody. They also have an upholstery room, in the back part of this building, where they manufacture mattresses and do all kinds of upholstery work. Joining the depot on the Southern Pacific Railroad track they have a large one story and basement warehouse 50x150 feet, where they carry all goods in original packages and from where all wholesale orders are shipped direct to their numerous customers. The warehouse is enclosed by a large corral 150x200, where under large sheds are carried hay and grain, farming and mining machinery, also hides, pelts and wool. Strangers, not acquainted with the volume of business handled by this firm seldom realize the enormous business transactions consummated here. They also handle, as above stated, hides, pelts and wool and are the only concern in Southern Arizona who handle same in car load shipments to Eastern tanneries and markets. The firm consists of Louis Zeckendorf, who resides in New York and attends to the business there, and Albert Steinfeld, of Tucson, who has the entire business here under his supervision.

LOUIS ZECKENDORF was born in Hanover, Germany, April 6, 1838, and came to this country in 1854, where he joined, at Santa Fe, New Mexico, his brother Aaron. Shortly afterward was started the firm of A. & L. Zeckendorf, from which small beginnings the present vast commercial enterprise has grown. In 1866 a branch house was started at Tucson. In 1872 Aaron Zeckendorf died and the business was continued by Louis and William, as Zeckendorf Bros., until 1878, when William Zeckendorf retired and the same was continued by the present firm of L. Zeckendorf & Co. During all these years of commercial life this firm has always met all business obligations at their maturity, a condition seldom equalled in a business career of so many years. Panics and failures have struck the country at various times, business has had its ups and downs, but this concern for its forty-two

years of business career, has withstood the tempest like the rock of ages. Louis Zeckendorf was married December 23, 1870, to Miss Mathilde Z. Leventrill, of South Carolina. They have one son, Arthur Louis. Mr. Zeckendorf is a Mason and member of Enterprise Lodge No. 206 since 1865, and resides in New York City.

ALBERT STEINFELD is also a native of Hanover, Germany, born December 23, 1854. He came to America with his parents when eight years old and received a thorough education in New York City, where he made his home until 1871. For two years he was employed in the wholesale dry goods house of George Bliss & Company, and later with Eldridge, Dunham & Company, now Dunham, Buckley & Co., first in the office and later in the hosiery department of said concern. From there he went to Denver, accepting a position in the dry goods house of his uncle, Charles Ballin, but made his way to Tucson in January, 1872, entering the employ of his uncles, A. and L. Zeckendorf. In 1878 he was admitted as a partner in the present firm and has since had the management of the business at this point. He is a very popular man in the community where he has been known from boyhood up, and particularly amongst the business men, who hold him in very high esteem. He has held many positions of public and private trust and is at present president of the Chamber of Commerce, and Vice-President of the Board of Trade. Mr. Steinfeld was married on February 15, 1883, to Miss Bettina V. Donau, of Denver, Colorado, and they have three children, Lester A., Irene and Harold. He is a member of the Masonic Fraternity at Tucson.

CHAPLAIN WINFIELD SCOTT. Much has been written of the sunny skies of far-off Italy, of its gorgeous landscapes, its beautiful scenery and its numerous places of great historical interest; much, too, has been said of the great Pacific Slope of America, of the versatility of the soil and variable climate of California, where, within an hour's ride, one can travel from a land of everlasting snow to perpetual summer, and where, in the northern part, is to be found the great wheat producing belt, while in the southern part is the land of fruit and wine. There is

one place on the face of the globe that is equal to all this, and more—that health-giving, health-restoring garden spot, the famous valley of Salt River, in Arizona. It is here the wasted invalid comes, and not in vain, to recuperate energies wasted by disease; it is here the mildness of the climate and the richness of the soil produces the choicest of fruits, and here it is that the painter from nature can procure the most beautiful of studies the equal of which cannot be excelled in either of the three grand divisions of the earth. Winfield Scott, generally known as Chaplain Winfield Scott, from his long association with army life, is one of the foremost advocates of Arizona, and is an enthusiastic believer in a glorious future for the Territory. A native of Oakland County, Michigan, Mr. Scott was born February 26, 1837, a son of James B. and Margaret E. (Covert) Scott. When eight years old his parents moved to Seneca County, New York, and being a graduate from both the Rochester University and the Rochester Theological Seminary, he was thus exceptionally well provided for in the way of an education. In 1861 he accepted a call to the pastorate of the Second Baptist Church, now Central of Syracuse, but resigned his charge when President Lincoln issued his first call for 300,000 men to put down the rebellion, and recruited Company C, 126th New York Volunteer Infantry, of which he was elected captain, and Thomas R. Lonsberry, now professor in Yale, first lieutenant. After two years of meritorious service he was recommended for the colonelcy of his regiment by his brigade and division commanders, but September 23, 1864, he was mustered out of service on account of wounds, incapacitating him from active service. In action at Maryland Heights he received a gun-shot wound in the right leg, was twice wounded at Gettysburg, and twice at Spottsylvania Courthouse. The explosion of a shell, in the last named battle, resulted, to Mr. Scott, in the loss of the muscle of inside of thigh of his right leg and was the effectual ending of his military career in the War of the Rebellion. During the battle of the Wilderness and until his last wound, Mr. Scott commanded the 125th and the 126th regiments, and his own regiment is No. 11 of the 400 fighting regiments of the Civil War. In January, 1865, he became pastor of the First Baptist Church of Leavenworth, Kansas, con-

tinuing as such for seven years, during which time a church edifice costing \$65,000 was built. In 1872 he went to Denver, Colorado, as pastor of the First Baptist Church, where he remained four years, installing the first pipe organ in the city and superintending the erection of a new church building. Succeeding this his field of Christian labor was at San Francisco, Oakland, San Jose and Los Angeles, California. July 27, 1882, he was appointed a chaplain in the regular army, and, at different times, was stationed at Fort Canby, Fort Stephens, at Angel Island, in San Francisco harbor and Fort Huachuca, Arizona. While at the latter place Chaplain Scott was placed on permanent waiting orders to be retired on account of the wounds he had received while in active service. Believing in the great future of Arizona, he took up a section of land five miles north of Tempe, under the "Desert Act," the spring of 1889, and now is the owner of a fine ranch of 220 acres of the best land in the Territory. Here Chaplain Scott has demonstrated the great value of Arizona lands as a fruit producing section. He devotes 60 acres to oranges, 40 to raising and shipping grapes, 20 to apricots and mixed fruits, 20 to almonds, 10 to figs, 14 to pears, and the greater part of the remainder of the ranch is utilized in the cultivation of plums, peaches, nectarines, etc. For four years Chaplain Scott has been shipping fruit, and is one of the most extensive growers and shippers in the valley. In 1861 he married Miss Helen L. Brown, of Spencerport, New York, by whom he is the father of three living children—Minnie L., the wife of Lieutenant F. H. Albright, of the Twenty-fifth Regiment, United States Army; Helen Lemire, now Mrs. E. D. Flint, of Oakland, California, and Florence M., now attending the high school at Alameda, California. Chaplain Scott is a Republican and is the vice-president of the Territorial Agricultural and Horticultural Society.

SAMUEL HUGHES. The history of any commonwealth is, after all, but the record of its men of strong character; and in the annals of their lives is to be found all that is worth the telling, and all that is worthy of remembrance, by future generations. Nor are all these men to be found among the politicians, and those whose chief ambition is to hold public positions of trust

and honor, although outside the latter class distinction is much more difficult of attainment. However, it is but truth and simple justice to state that in all the years that span the existence of Arizona as a civilized community, there has appeared upon the roster of her men of note no name more indelibly associated with those symbolic principles of prosperity, honesty, industry and unimpeachable character than that of Samuel Hughes, of Tucson, who, by his upright walk through life, has won the high regard of all mankind.

Samuel Hughes is of foreign nativity, his birth occurring at Pembroke, Wales in April, 1829, and his ancestry is traced to the ancient Britons. His father, whose name was also Samuel, brought his family to America in the year 1837, and shortly after his advent settled on the banks of the upper Schuylkill River, in Pennsylvania, where he engaged in dairying. In 1839, however, the family removed to Western Pennsylvania, locating on a farm about one and one-half miles from Allegheny City. Here the mother died in 1843, and the family received another severe blow by the serious injury of the father, which left him a cripple for the remainder of his life. In 1844 they removed into Allegheny City, the children being under the guardianship of General William Robinson. The oldest son dying soon after their removal, Samuel devoted his entire time to help support the rest of the family, his first employment being as driver of a canal-boat mounted on trucks, over the Allegheny Mountains, for the munificent wages of six dollars per month. This was the first money earned by young Hughes, and while it was no great amount, yet he was justly proud of it because it was honestly earned by the sweat of his brow. On his return from a trip Gen. Robinson expressed a desire to have him go to school, but this he would not accede to unless proper provision was made for the support of the remainder of the children, then eight in number, he agreeing to take care of himself if such arrangements could be made. This being impracticable, he and his brother William secured employment in the spinning department of Blackstock's cotton factory, he receiving \$1.25 and William seventy-five cents per week for labor thus rendered, their combined expenditures amounting to \$1.75 for board and

ten cents for washing per week. It was in such a severe school of experience that Samuel Hughes embarked on life's commercial sea. The diligence with which young Hughes performed the duties devolving upon him attracted the notice and favor of the proprietor, Mr. Blackstock, who induced him to enter that part of the factory devoted to blacksmithing, and he there familiarized himself with all the details pertaining to that trade. In 1846, owing to a strike of the workmen of the factory, he was thrown out of employment, but with his characteristic energy and a desire to do whatever his hands found to do in the way of honorable toil, he secured employment in a confectionery and bakery establishment and there remained until the end of the strike, when he resumed his old position in the machine shop of Mr. Blackstock's factory. For some time he was engaged in mechanical work, but eventually became a cabin-boy (in 1848) on board a steamboat at \$15.00 per month. In 1849 he made his first trip to New Orleans, and while returning from his second trip there to Cincinnati cholera carried off 47 of the deck passengers attached to his vessel. He continued steamboating until 1850, when his youthful ambition was fired by glowing reports from the gold fields of the Pacific slope, and while at St. Joseph, Missouri, he started for California. It was in the month of April that the start was made, and sixty-six wagons comprised the train. In payment for his trip across the plains and mountains Mr. Hughes contributed his services as a cook, an art he had acquired during his career on steamboats. After the start a division in three equal parts was made in the train, and the one to which Mr. Hughes was attached required that he should walk instead of ride—a far different experience than riding in a palatial steamer. The Carson was the route selected, and when sixty miles from Hangtown, now Placerville, he met a man who offered him a half ounce of gold per day for his labor. Accepting this proposition, he remained at Hangtown until the following October, and then went to Sacramento, where he remained until the next spring. For the purpose of opening a restaurant he then went to what is now Yreka, Siskiyou County, remained there until the spring of 1852, crossed the Siskiyou Mountains to Oregon and was one of the first to discover Rich Gulch,

at Jacksonville. While more or less trouble was experienced by the miners from Indian depredations, Mr. Hughes experienced none, his treatment of them being kind and fair, and for these reasons he was held in high esteem by them. A local war between the whites and savages was finally terminated, Mr. Hughes, as interpreter, acting as mediator. Returning to Yreka, he opened a hotel, but later was called upon to participate in another raid upon the Indians at Evans Creek. In 1852 he purchased the Mountain House, at the foot of the Siskiyou Mountains, on the California side, and kept the stage station for the California and Oregon stage line. He there remained until May, 1856, when he returned to the Shasta Valley, and soon thereafter became interested in the stock business. Owing to ill health he was compelled to seek a more congenial climate, finally coming to Arizona and finding a home at Tucson. The admirable climate soon built up his shattered health, while the kindness and liberality of the citizens soon persuaded him to make this his permanent place of residence. Specimen ores brought in by prospectors soon led him to believe that valuable deposits of the precious metals existed within the Territory, and with this idea in mind he embarked in prospecting and kindred pursuits, and has continued such work to the present time with marked success. Incidentally, he has also been connected with other enterprises, and for years was generally known as the "Tucson Butcher," the appellation being acquired from his extensive meat market which he operated with his usual success. Merchandising also occupied his time and attention to a considerable extent, as did also fulfilling contracts secured from the government and other sources. Up to and during our great Civil War Mr. Hughes was the best known man in the Territory. His enterprise, liberality and humanitarianism were proverbial, and many were indebted to him for the homes they lived in, as well as for the food which kept soul and body together. In no instance could it be said that he was other than a friend of the poor and a foe to the oppressor. Being originally a Whig in politics, he naturally was a strong Unionist during the Rebellion, and for this he was often threatened with death and the confiscation of his property. A conviction once formed in his mind that the position occu-

ried by him was right, no threats of death or loss of property would, or could swerve him from the position of his selection. For nearly forty years his life has been one of ceaseless activity, and, oftentimes, filled with adventures in which, more than once, he escaped with his life only by his shrewdness and bravery. Of late years he has been much interested in the development of the resources of Arizona, and methods that bring his beloved land to the attention of those seeking homes find in him a warm advocate. Besides being one of the organizers and president of the Santa Cruz Bank, he is also interested in various other financial institutions. Mr. Hughes was the first Mason raised in Tucson, and so well did he like the benevolent and philanthropic character of the order that he ascended both branches, becoming a thirty-second degree Scottish Rite Mason, as well as a Knights Templar of the York Rite. Besides this he is connected with other benevolent and popular organizations, and in all matters is foremost in promoting the growth and prosperity of the Territory. One singular feature of his career is his dislike for political preferment. Possessing high intellect, beloved by a legion of beneficiaries and commanding the respect of all those with whom he has met, the highest office within the gift of the people could be secured; but a desire for the rest and quietude of private life is of more attraction to him than the ceaseless struggle for office and with prospective office-holders.

Some noted writer has said that there are three important epochs in a man's life—his birth, his death and his marriage. If one can pass his career through life and when evening approaches realize that his career has not been in vain, he certainly must have accomplished that for which he was created. Mr. Hughes commenced life in poverty and under adverse circumstances. At its evening he is happy in the absolute knowledge that he never did a dishonorable act, that success has crowned his efforts and that he commands the love and esteem of all who know him.

DR. O. L. MAHONEY, the efficient superintendent of the county hospital at Phoenix, was born March 7, 1839, in Jefferson County, Tennessee, being the eldest of a family of ten children born to the marriage of Dr. James W. and

Amanda M. (Turnley) Mahoney, who were also natives of Tennessee. His great grandfather was one of the colonies' defenders during the struggle for independence from Great Britain, and his maternal grandfather was a soldier of the war of 1812, participating in the battle of New Orleans under General Andrew Jackson.

Dr. James W. Mahoney practiced medicine many years in his native State, moving, afterwards, to Arkansas. His death occurred at Pine Bluff after a long and honorable life.

The immediate subject of this sketch, Dr. O. L. Mahoney, received a liberal education and began the study of medicine when yet in his teens. In 1861 he became a member of Company C, Ninth Arkansas Volunteer Infantry. During the time of his enlistment Dr. Mahoney was in active field service and witnessed some of the most hotly contested battles of the war, among them being Belmont, Corinth, Shiloh, Prairie Landing, Little Rock and Arkansas Post. The literary education of Dr. Mahoney was acquired at Pine Bluff, White Sulphur Springs and at St. John's College at Little Rock; his professional learning was from the Medical College of Ohio, from which he was graduated in 1867. Prior to this time, however, he had practiced medicine. His first location was at Murphysboro, Illinois, but after a residence there of but a few months he attached himself to an emigrant train that was conveying many cattle to the great West. With this protection from depredating bands of Indians he got as far west as Maricopa Wells, where he parted from the caravan and from which point he pushed on to Wickenburg, then having a population of about 350 and being one of the most important points in the Territory. After a residence at this place of about one year he returned to Murphysboro, Illinois, where he was actively engaged in medical practice until May, 1883, when he located permanently at Phoenix. In 1837 he was selected to remove the Arizona insane patients from the asylum at Stockton, California, to the new asylum at Phoenix, and served as the first superintendent. In 1883 he was appointed superintendent of the county hospital, served four years, was re-appointed to the position in 1891, and is still serving in that capacity. Dr. Mahoney is among the well known men of the Territory, has filled various positions of honor and trust with signal abil-

ity and satisfaction to all concerned, and is a member of the Odd Fellows and Ancient Order of United Workmen. In 1870 he married Miss Virginia Rasson, a lady of high attainments, a graduate of the Woman's College, Chicago, and a Tennessean by birth.

CHARLES J. MEHAN. The old saying that "the child is father of the man" has been verified on numerous occasions time out of mind, and it is certainly true in the case of Charles J. Mehan, for in his youth he was an energetic, ambitious and pushing lad, and these most worthy traits have not deserted him in his manhood. On the other hand, they have rather been intensified, and as an illustration of the success which is but the sequence of these qualities, it is but necessary to go back over his career. Mr. Mehan was born in the town of Franklin, Province of Quebec, Canada, May 15, 1860, and his education was received in the public schools. He left that place for Chateaugay, New York, when eighteen years old, and there learned the carpenter trade; went to Leadville, Colorado, in April, 1880, and there worked at carpentering until May, 1882, and then went to Idaho. In September, 1882, he went to Tombstone, Arizona, where he first engaged in mining, but later resumed his trade, which he continued until his removal to Nogales, in February, 1886. He continued his former occupation until June, 1886, when he was given the position as clerk in the International Hotel. In August, 1888 he engaged in mining at Sonora, Mexico, but the fall of 1892 was elected to the Territorial Legislature, and after serving his term embarked in the ice business in Nogales. This business he continued but one year, when he was appointed United States Chinese Inspector for the District of Arizona.

His home is at Nogales, and he is engaged in stock-ranching. Mr. Mehan was married March 27, 1895, to Miss Ada Exton, a native of England, but a resident of California when married. Mr. Mehan is a member of the Knights of Pythias at Nogales, and is also a member of the Ancient Order of United Workmen.

JUDGE OWEN T. ROUSE. The judges of the District Courts of the southern portion of the Territory have always been noted for their

character and ability, and one of the most popular of the many worthy men elevated to the bench in the history of the jurisprudence of that portion of the Territory is Judge Owen T. Rouse. He is a true representative of what an American boy can become when thrown upon his own resources. The Judge began life in the town of Florence, Boone County, Kentucky, and when he was still but a child his parents moved to Monroe County, Missouri, where he grew to manhood.

After receiving a good education he decided that the profession of law should be his chosen calling, and in early manhood entered the office of an able lawyer, where he read for two years, and was then admitted to the bar. In order to become more familiar with the law he attended the law college at Cleveland, Ohio, and graduated from that institution with honors. After this eventful episode he located in Moberly, Missouri, in 1875, and there engaged in the practice of law for ten years, becoming one of the leading attorneys of that part of the State. In 1885 he was appointed, by President Cleveland, United States Attorney for Arizona, and after coming to this Territory, was an incumbent of that position until 1889, when he resigned. At the time of his resignation he had been continuously in office for twelve years, having been repeatedly elected to various positions of trust. In 1880 he was elected State Senator of Missouri, and held that position for four years, his district being composed at first of Howard, Randolph and Monroe counties and afterwards of Randolph, Macon, Adair and Schuyler counties.

His district was one of the most populous and wealthy in the State. He declined to make an effort for re-nomination for State Senator and became a candidate for Attorney General of that State, but was beaten in the convention for the nomination. While State Senator he was chairman of the Committee on Criminal Jurisprudence and a member of other important committees. His services as State Senator, though he was one of the youngest members of that body, challenged the admiration of distinguished gentlemen of that State, and they recommended him to the President for appointment as judge of the Territory, but he was appointed United States Attorney instead. Although when appointed he did not reside in the Territory, he came here with the fixed

purpose of making the Territory his home, and did become a citizen in fact, and was well received by the people.

He is not a politician in the strictest sense of the term. He discharged the duties of the office of United States Attorney so ably and honorably as to win the confidence and respect of all good citizens, whether of his or opposite politics.

He believes a public office is a public trust, and that officers are the servants of the people and not their masters.

During the time he was United States Attorney he resided in Tucson, and when he resigned said office he entered upon the practice of his profession in that city, and at once secured a fair share of the legal business and took rank as one of the ablest attorneys of the Territory.

In April, 1893, President Cleveland appointed him a member of the Supreme Court, and as such he became judge of the District Court of the Second Judicial District, and as such he now resides at Solomonville, Graham County, where he holds the U. S. courts in his district.

Judge Rouse married Miss Louisa Moseley, a native of Monroe County, Missouri. They have only one child living, a son. He was born August 14, 1877, and graduated from the University of Arizona before he was eighteen years old. The Judge is a member of the Masonic Fraternity. His Commandery membership is at Tucson, but his Blue Lodge and Chapter memberships are at Moberly, Missouri. He is a Past Master and a Shriner. As a Shriner his membership is with the Phenix Temple.

D. A. EVANS is one of the well known contractors and builders of Phoenix. He is a native of the city of San Francisco, California, his birth occurring October 5, 1863, and was educated in the public schools of Los Angeles. At sixteen years of age he began learning carpentering and building of his father, who, at that time, was one of the foremost contractors of Los Angeles. For a number of years he continued that occupation in and around Los Angeles and San Diego, but early in 1893 came to Phoenix, which has since been his home. As a skillful mechanic Mr. Evans is among the best in the Territory, as is well attested by the excellence of his work on the Lamson Business College, the Ford Hotel, the resi-

dences of Messrs. Goldman, Williams, L. Melzer, J. Gibson and numerous other buildings. Since becoming a resident of Phoenix Mr. Evans has become thoroughly identified with the material prosperity of the city and is regarded as one of the enterprising and energetic young men of the place. In the year 1886 he was united in marriage with Miss Mary J. Kerren, of San Diego, California, by whom he is the father of three daughters—Margrette, Evelyn and Gladys.

LEWIS WILLIAMS. Lewis Williams, superintendent of the smelter at Bisbee, Arizona, is one of those whose active lives are coeval with Cochise County, and whose trials and triumphs are interwoven with her history. His career illustrates most forcibly the possibilities that are open in this country to earnest, persevering men, who have the courage of their convictions, and the determination to be the architect of their own fortunes. In all his business enterprises he has been active, sagacious and daring; in all his dealings prompt, conscientious and decisive. He is a product of Wales, born in Swansea, December 9, 1835, and for generations his ancestors have been metallurgists and connected with the Hofod Works with the Vivians. The father was sent by the Vivians through France and Norway to dig up and open those ancient mines, but was subsequently called to accept a position with the New Haven Copper Company, at East Haven, near the old fort, six or eight miles from New Haven. He entered upon his duties in 1852, continued this for a few years and then the New Haven corporation closed down its works. From there Mr. Williams went to Houghton, Michigan, and superintended the Houghton Refining and Smelting Company. Later he became superintendent of the Iron Works, at Greenby, Wisconsin, but shortly afterwards went from there to Utah, where he occupied a number of positions of trust with reliable concerns. His death occurred in San Francisco. Lewis Williams was educated in East Haven and was permitted through the courtesy of Professor Sullivan, of Yale College, to attend lectures. From East Haven he went to Canada, where he was assayer for the Bruce Copper Mines at Bruce, but subsequently joined his father in Houghton and remained there for some time. He then left for the iron furnaces at Mumsing near Marquette,

but desiring a larger field, he soon found himself in Salt Lake City, Utah. A few days after his arrival he was placed in charge of the Flagstaff Smelting works, but failing health soon caused him to leave for the Pacific coast, and for some time after this he was employed by Ralston, of San Francisco, to investigate a certain patent in metalurgy. In 1880 he came through Arizona and examined the Copper Queen mine at Bisbee. He decided that there was sufficient material for legitimate investigation in mining. Later he was sent by Ralston to Jerome and reported that it was a great mine and that the time would come when that property would be very valuable. His predictions were true.

Mr. Williams has been in charge at Bisbee mine ever since and has been improving all things connected with the same. He was married at Detroit, Michigan, to Miss Harriet M. Powell, a native of New York State, and they have one daughter now the wife of James S. Douglas, son of the president of the Copper Queen. Mr. Williams was made a Mason at Seymour, Connecticut, and is a charter member in "The Gate of the Temple"; Chapter at Hancock, Michigan.

HON. JAMES REILLY. In the profession of law a man must be endowed with superior intelligence and have gone through with years of careful study and training to be able to cope with the brilliant minds which do honor to the bench and bar of today. Prominent in the ranks of the foremost lawyers of Tombstone, Arizona, stands the name of Hon. James Reilly. He was born in the parish of Larah, County Cavan, Ireland, October, 1830; son of Terence and Eleanor (Brady) Reilly, both natives of the same parish. The maternal grandparents, Terence and Mary Brady, were born in the same parish, as was also the paternal grandfather, Terence Reilly, and all were tillers of the soil. Until eighteen years old James Reilly assisted his widowed mother in the duties on the farm, and then left his native country to seek his fortune in America. Landing in New York City he announced his intention of becoming a citizen of the United States, at City Hall, New York, in February, 1849. In June of the same year he enlisted in the United States Army at Albany, New York, and was sent to Texas, then a wilderness, to join company C, Eighth United States Infantry, at Fort Crogran,

now in Hamilton County, with which company he remained, in Texas and New Mexico, until 1859. During about three years of that time the company was mounted and was constantly engaged under General Harney in hunting and fighting Indians. For three years after that Mr. Reilly was engaged in merchandising and cattle raising. When discharged in 1859, he went to teaming and freighting, and in the fall and winter of 1860 made a trip from Port La Vaca, Texas, to Ft. Buchanan, Arizona, with freight, in company with McComb, Rooney, Walker and Chandler. The last named was a member of the Texas Legislature and the secession movement was strong. An extra session of the Legislature was called by the governor, and Chandler, leaving the party west of San Antonio, went to the Capital. The party then consisted of twenty-one Mexican teamsters and herders, and four Americans, with eighteen ten-mule teams. The trip was a very hard one and night guards were kept constantly after leaving the settled portions of Texas. Water and feed were scarce and one to two feet of snow fell in the vicinity of Stein's Peak. However they arrived all right at Fort Buchanan early in February, 1861. The company, generally, was enthusiastic on the question of secession, and all, except Reilly, returned to the Lone Star State. He remained at Fort Buchanan, hauling supplies for Suttler White, but one night the Indians stole all his mules but two from within ten paces of the sentinel's walk. From there he went to Sonora, with a very small capital, and engaged in farming and milling, and in June, 1863, brought up in La Paz, Lower California, where he did not know a soul. From that time until the fall of 1866 he worked in mines at Cacachilas, Triumph and San Antonio. From there he went to Arizona by way of the Gulf and Colorado River and after thirty-nine days of suffering from high winds and lack of food and water, they arrived at Port Isabelle—mouth of the Colorado River—and there met Captain Polhemus, of the C. S. N. Co., who took the party to Yuma for half fare. After this until January, 1875, Mr. Reilly worked in the mines, at Wickenburg and Bradshaw, drove teams and chopped and hauled wood, and then was appointed deputy sheriff under William Werninger, then sheriff of Yuma County. About that time Mr. Reilly commenced the study of

law in earnest and was elected district attorney of Yuma County in the fall of 1876. He started a newspaper in Yuma in 1878, but the following year moved to Phoenix, where he continued the paper until May, 1880. He then abandoned that business and moved to Tombstone, where he has since given his entire time to study and the practice of law. In 1892 he was elected on the Democratic ticket a member of the 17th Legislative Assembly of Arizona. Mr. Reilly was born a Democrat, but of late years he has earned for himself the reputation of a "kicker," a "crank," etc., and has finally quit the Democratic party forever, unless that party shall be born again, a thing not likely, nor perhaps possible. In April, 1893, Mr. Reilly was married at Phoenix to Miss Nicolasa Ruiz, the daughter of Abran and Luiz Ruiz.

CHARLES A. SHIBELL. There are few names of more prominence in Pima County, Arizona, than that of Charles A. Shibell, the most efficient county recorder. He was born in St. Louis, Mo., August 14, 1841, and partly educated in the public schools of that city, but later finished in Iowa College. In 1860 he crossed the plains to California with a good sized company and stopped at Sacramento, where he was employed as clerk in a general store. In 1862 he turned his face to the South and arrived in Tucson, Arizona, May 20, of that year, making the trip as a teamster for the government. He was with the command that captured Tucson on that day and then went with this command to the Rio Grande, where he remained until January 1, 1863, afterwards returning to Tucson. Here he was in the employ of the government until January 1, 1864, Tucson being the headquarters for the command troops, and handled supplies from Ft. Yuma to Tucson, a distance of 300 miles. In the spring of 1864 the troops were ordered to the Rio Grande to be mustered out, their term having expired, and Mr. Shibell remained at Tucson. In the month of June, 1864, he went to Cerro Colorado mine, about seventy-five miles southwest of Tucson, and was there engaged in mining for about a year. In May of the following year he went to a place called Sonoita River, about thirty miles south of Tubac, and remained there until the early part of 1867. While there he was attacked by the Apache Indians and two or three of his men were killed. On account of

their constant depredations he was obliged to leave that place and in 1867 he came to Tucson. Soon after he made application and became inspector of customs for the district of El Paso, which position he retained until 1869. After this he kept a station twenty-six miles northwest of Tucson, known as Desert Station, and was thus occupied until the latter part of 1872, when he embarked in the transportation business between Tucson and Yuma. In the latter part of 1874 he became interested in politics and on the first of January of the following year was appointed deputy sheriff under W. S. Oury, and was an incumbent of that position for two years. Later he was elected sheriff, was in office two terms and then, upon retiring in 1881, engaged in the hotel business, which he conducted as proprietor of Palace Hotel until 1883. The two years following this he was engaged in merchandising and in 1887 was again appointed deputy sheriff, this time under Eugene O. Shaw, and was thus occupied until January 1, 1889. In the fall of that year he was elected county recorder and is now discharging the duties of that position in a very able manner and to the satisfaction of all concerned. There are few men who have acquitted themselves in office more creditably or who are more worthy of respect than Mr. Shibell. He is one of the pioneers of this part of Arizona and has witnessed most of its wonderful development. He takes pride in assisting to forward all public enterprises and is public spirited, liberal and high minded. At the present time he is a member and president of the Workman Hall Association, treasurer of the Citizens' Building & Loan Association, and ex-president of the Pioneer Society. Mr. Shibell's first marriage occurred in 1868 and four children were born to this union: Mary A., Lillie M., Charles B. and Mercedes A. In 1877 Mr. Shibell married Miss Nellie Norton and the following children have been given them: Lionel J. and Orpha. Mrs. Shibell is a worthy member of the Episcopal Church.

HON. WILLIAM McNARY LOVELL. In order to become distinguished at the bar it is necessary that a man should possess excellent judgment, a thorough education, an intimate knowledge of his profession and a decided liking for its arduous labors. Such a man is Hon.

William M. Lovell, who is classed among the prominent legal lights of Tucson, Arizona, where he has resided since the years 1882. He is a product of Blue Grass soil, his birth having occurred in Muhlenburgh County, Kentucky, November 5, 1836, on a farm. In the year 1852 he crossed the plains to California with his parents and in the year 1862 was graduated from the University of the Pacific, Santa Clara County. In that county his parents reside at the present time. Young Lovell remained on his father's farm in California until 1858, when he went to Frazier River, British Columbia, during the gold excitement, and followed mining until the following autumn. Returning home he then entered the university from which he was subsequently graduated, in 1862, as above stated, and then began the study of law with Judge Lawrence Archer. In the spring of 1863 he went to Austin, Nevada Territory and engaged in the practice of law with Al. Hereford (now deceased), but later, in 1864, returned to San Jose, California, where he began practicing. In 1865 he formed a partnership with his preceptor, Judge L. Arthur, and continued with him until November, 1882. While practicing in San Jose he served as deputy district attorney for six months, and then was appointed to the position of district attorney, filling a vacancy, and held that office eighteen months. So well did he discharge the duties of this position that he was soon after elected district attorney and re-elected to that position, thus serving a number of years. As before stated Mr. Lovell located in Tucson in 1882 and early in 1883 he formed a co-partnership with Hon. B. H. Hereford. In 1885 the latter was elected district attorney of Pima County and Mr. Lovell served as his deputy. In 1888 he was re-elected and the firm was dissolved, Mr. Lovell continuing his practice alone. Two years after this our subject was elected district attorney of Pima County and served two years, and in 1892 he was elected to the Legislature to represent his district, serving one term. In 1894 he was again elected district attorney, which position he holds at the present time. Not only is Mr. Lovell a noted attorney but an influential citizen and politician as well. In politics he is a staunch supporter of Democratic principles. He was married in

the year 1863 to Miss Mildred L. Welch, of San Jose, California, and they have four children: Gussie O., Laurette F, a lady commissioner to the World's Fair; Lawrence Archer, chief clerk in Wells-Fargo Express Company at Phoenix; and Ira W. Mr Lovell's parents, Joseph and Laurette (Campbell) Lovell, are natives of Kentucky, and on the maternal side of Scotch origin. Grandfather Michael Lovell was born on Chesapeake Bay, in Maryland.

HENRY LEVIN. This gentleman has inherited the sturdy characteristics which have brought success to many of German origin and is now the capable and efficient assessor of Pima County, Arizona. He was born in Tucson, Arizona, May 24, 1868, and is a son of Alexander and Zenona (Molina) Levin, the father a native of Germany and the mother of Sonora, Mexico. The parents were early settlers of Tucson and the father followed the occupation of a brewer. His death occurred September 29, 1891. During his youth Henry Levin had good educational advantages and for some time attended the Newton Collegiate Institute of Newton, New Jersey, in Sussex County. Later he took a year's course in the Lawrence Business College of Lawrence, Kansas, and after returning to Tucson became clerk in a general merchandise store. After this he accepted the position as deputy postmaster at Nogales, Arizona, held that position for one year and then resigned to accept a place as book-keeper in a store owned by Juan Bojorquez, at Nogales. For two years he held that position and then resigned to become a partner with his father in the brewery business at Tucson, remaining thus connected until a short time before the latter's death. He then became interested in the commission, real estate and brokerage business, met with fair success in this and was thus occupied until 1892, when he was elected city assessor and collector of licenses of Tucson, Arizona. This position he held one term and was elected to his present position in 1893. Reliable and competent and thoroughly understanding every detail of his work, Mr. Levin's services were appreciated by the people and he was re-elected in 1894. This position he is now holding. In the month of January, 1896, in company with R. G. Brady, Mr. Levin engaged in the broker business, dealing in cattle, real estate,

mines and insurance. In his social relations Mr. Levin is a member of the Knights of Pythias, Spanish-American Alliance. He is a young man of more than ordinary ability, agreeable and pleasant to all and quite popular with the masses. For four years now he has been a member and secretary of the Society of Arizona Pioneers.

JOHN S. JONES is among the men of note in Arizona at the present time, and to his energy and enterprise the Territory is indebted, to no small extent, for the progress she has made during the past ten years. Mr. Jones is not a native of the United States, but was born October 3, 1848, in Monmouthshire, Wales. The following excellent sketch of his life is taken from a recent issue of the Arizona Mining News, of Jerome:

At the age of six years he came to America with his parents and settled at Columbus, Ohio, where he received his education in the public schools, after which he entered what is now the machine shops of the Pan-Handle railroad system, where he served his apprenticeship; from the machine shop he went to the drawing room of the locomotive department. He left this company to accept a position as assistant chief engineer of the Ohio deaf and dumb institution under the administration of Governor Hayes. He afterward served as chief engineer of the same institution. In 1870 he left Columbus to go to Washington territory, but on reaching Nebraska he changed his mind, and after investing some money in land there, and remaining for a short time, went to St. Louis, Mo., where he entered the employ of the Missouri Car Wheel and Foundry Company as chief engineer, remaining with the company until 1873—the year of the great panic—when the works closed. It was at this time Mr. Jones took his first step in the mining line. Recommendations which he had brought from his home in Columbus brought him in contact with Mr. J. L. Ferguson, one of the capitalists of St. Louis. Mr. Ferguson suggested to Mr. Jones that he invent a quartz mill, and that they then go into the business of manufacturing mining machinery. The mill was invented and the company formed. The Mining Machinery Company of Ferguson & Jones was successfully operated until 1878, Mr. Jones during the life of the company having traveled through all the min-

ing districts in the United States, South America and Mexico, placing his machinery in all the districts visited. During his visits to these mining districts he became familiar with mining in a practical manner, and it was the experience thus gained which has enabled him to successfully handle the mines in Chaparral Gulch. In 1878 he was back in St. Louis, and went from there to New Hampshire, where he superintended the erection of mining machinery for Commodore Garrison & Bros. In December, 1879, he returned to St. Louis and the next spring went to Central America, where he remained for fourteen months, returning to St. Louis, and from there going to the San Juan country in the interests of some eastern capitalists. After remaining in the San Juan country one year he returned to St. Louis, where he still made his headquarters, and continued to deal in mining machinery and doing an extensive expert business. Leaving St. Louis he went to New York City, where he opened an office at 293 Broadway, remaining there three years. It was here that he became acquainted with capitalists, who were interested in mines in Arizona. In 1886 he came to Arizona as manager for two New York companies, who were operating on Groom Creek. He resigned the management of these companies, and for nearly two years did not do any mining of any account. He then came into Chaparral and located seventeen mines. Among those located and best known to the public is the Chaparral, situated in Yavapai County, about sixteen miles southeast of Prescott. That Yavapai County mines are of the best has been proven by the work that has been done in this rich gold camp. The richest ore taken from the mines here has been found at a depth of from 350 to 600 feet. The veins are both large and very rich. The ledges run north and south, or nearly so, with an occasional cross ledge. The formation is usually of granite and porphyry, or slate and porphyry. Generally the ore bodies are found in slips or pockets, but in some instances in continuous veins. The ore slips in the Little Jessie mine are very numerous and will run from 15x30 feet to 150x175 feet in size. This is about the average in all the mines in the camp. The filling in the ledges between the ore slips is porphyry, and will plate from \$5 to \$7 per ton. In some mines a depth of 160 feet was reached before sulphurets

were encountered. Such was a fact, particularly in the McCabe mine.

Among the mines which have brought Chaparral Gulch to the front as a profitable mining district is the Little Jessie, owned by Hon. John S. Jones. Mr. Jones came to the gulch in 1889, and from that time on the district has been a paying producer. Yavapai County is under heavy obligations to him for the development of this district. His experience in mining for many years previous to his coming to Chaparral had given him the necessary education to successfully contend with all obstacles which might spring up, and his success here is an illustration of what good judgment, backed by determination, will do.

CHARLES T. CONNELL. In the matter of municipal government Tucson is particularly fortunate in having a body of men thoroughly alert to the best interests of the city. The last few years have been replete with works of municipal improvement, and much has been done for the general betterment of existing conditions. Charles T. Connell, the present efficient City Recorder, is a man well known in this part of the Territory and one whose push and energy and progressive and advanced ideas have brought him prominently before the public. He was born in Mount Vernon, Iowa, January 21, 1859, and is the son of Peter D. and Mary M. (Safely) Connell, natives of Ohio and New York respectively, and of Scotch-Irish origin. Charles T. received his education in Mount Pleasant Military Academy and Sing Sing, New York, it being his intention to enter West Point. The trend of events, however, changed his course, and in 1880 he accepted an appointment under Major Powell to take the first census of Apache Indians that year. He accordingly came West and the year following was appointed to the post of Indian trader at San Carlos, at which place he remained two years. Since that time, 1883, he has been engaged in mining throughout the Territory, and has adopted that as his business. On the death of City Recorder Judd Mr. Connell was appointed by the city council to the vacant position, and his conduct of the office was such that later he was elected to the position for another term by one of the largest majorities on the ticket. He is an active Republican, and is possessed of superior ability

to successfully conduct the office he now holds. All Mr. Connell's interests are centered in and around Tucson, and every dollar he earns is put into the ground in quest of the precious metals. He has thus acquired considerable interest in several mining camps in this region. He is Chairman of the Republican Central Committee of Pima County, and during 1884 and '85 he was deputy United States Marshal under Z. L. Tidball. Mr. Connell was superintendent of the Eagle Golden Mining Company at Saginaw camp, nine miles southwest of Tucson, and he is at present police judge of the city of Tucson. Besides being an efficient officer and an enterprising citizen, he is exceedingly popular socially among a host of friends. On the 20th of May, 1882, Mr. Connell married Miss Susan A. Moore in Globe, A. T., daughter of James A. Moore, an old pioneer stage man of Arizona. Mrs. Connell died February 20, 1895. This union resulted in the birth of three children, as follows: Frances S., first white child born at San Carlos, March 11, 1883; Henrietta F., born September 23, 1885, and Robert Moore, born July 4, 1893.

HON. FRANK H. HEREFORD. This prominent attorney of Tucson, Arizona, is justly recognized as a man of superior ability, force of character and determination. He is a native of the State of California, born in Sacramento November 21, 1861, and the son of Hon. Benjamin H. and Mary (Jewell) Hereford, who were natives of Virginia. Mr. and Mrs. Hereford emigrated westward with their parents when children and were subsequently married in California. Benjamin H. Hereford was a talented and brilliant lawyer, and practiced his profession to some extent in California. After removing with his family to Virginia City, Nevada, he then became clerk of the court and held that office one term. From there he removed to Hamilton, Nevada, was elected clerk and recorder and afterwards clerk of the court, but subsequently removed to Pioche City, Nevada, where he was undersheriff for a year. Returning to Virginia City, Nevada, he became secretary of the Pacific Mining and Milling Company, which position he filled two years. In 1875 he came to Tucson and here practiced law until his death in 1890. He held the office of District Attorney for three terms and

was a member of the House of Representatives one term. Mr. Hereford was also a very prominent politician as well as citizen, and had many warm friends. His wife died in Virginia City, Nevada, in 1866. To their union was born but one child, Frank H., who secured a good practical education in the public schools and later attended McClure's Academy in California, Santa Clara College, and finished in the University of Pacific at San Jose. In 1877 he came to Tucson, Arizona, and began the study of law, but one year later entered the mercantile establishment of Lord & Williams, remaining with the same two years. From there he went to Tombstone and became general agent for the firm of J. D. Kiñer & Co., stage lines, with which firm he continued until twenty-one years old. Afterward he went to Prescott, Yavapai County, Arizona, then the capital of Arizona, and became the private secretary of F. A. Tritle, Governor of Arizona, and for two years held the office of private secretary, though much of his time was given to mining matters in which Governor Tritle was largely interested. After this he spent a few months traveling in Old Mexico and the East, and later became Deputy County Clerk of Pima County, which office he had the entire charge of for one year. Refreshing his mind in his law studies, he was admitted to the bar July 8, 1886, and formed a partnership with T. S. Stiles, who was afterward elected to the Supreme Bench of the State of Washington. Following this Mr. Hereford was associated with his father in the practice until the latter's death, having acted as deputy district attorney during his father's term. On the 7th of July, 1890, he was appointed to succeed his father in the office of district attorney, and at the expiration of his term resumed the practice of law. On the 12th of May, 1891, he was elected a delegate to the constitutional convention, and on the 8th of November, 1892, was elected District Attorney of Pima County, and at the expiration of his term returned to the private practice of law. He is one of the foremost lawyers of the Territory, has a large and lucrative practice, and has many warm friends. For one year he was attorney for the Southern Pacific Railroad, and has represented the San Pedro Cattle Company, the San Simon Cattle Company, the Canada Del Oro Mines limited, of London; Tucson Mining & Smelting Co.,

and numerous other corporations. He is engaged quite extensively in mining. For four years he was director in the Consolidated National Bank of Tucson, and is still a stockholder. Socially he is a member of the Ancient Order United Workmen and is a stockholder in the hall of that association.

F. A. ODERMATT. Prominent among Tucson's professional men, and one who has been long identified with the moral and material advancement of the city, is F. A. Odermatt, the leading dentist, whose offices are located in the handsome postoffice block. Mr. Odermatt was born in Buochs, in Canton Unterwalden, Switzerland, June 17, 1848, and lived with his parents there until about four years old. In February, 1852, his father and family emigrated to the new world, and arrived in New Orleans, where they remained but a short time. From there they went to St. Louis and thence to Springfield, Ill., but only remained in the latter place a short time, when they returned to St. Louis. Mr. Odermatt, Sr., was engaged in the mercantile business, and prior to the war enjoyed a successful business career in the cities named, but California seemed to offer greater opportunities, and so in 1863 he took his family to San Francisco. It was in this city that our subject resumed his education, begun in St. Louis and Springfield, and he entered St. Ignatius' College. After a period of study there he entered St. Thomas' Theological Seminary at the old Mission Dolores in 1865, where he devoted his time to Latin and Greek up to 1867. In February of the last-named year, accompanying Archbishop Allemany, of San Francisco, he sailed for Europe to finish his education, and in May of the same year entered the College of Einsidlen, an old and famous institution of learning of Switzerland. He remained there nearly two years, when he became so seriously ill that the college physician advised him to give up his studies and return home as soon as his condition would permit undertaking the long voyage. He returned to San Francisco in the early part of May, 1869, and after a few months' rest, he recovered from his illness and decided to take up the study of dentistry. Having chosen his profession, he entered the service of the late Dr. C. C. Knowles, a leading dentist of the Pacific

Coast, and remained there a period of ten years, after which he began practice for himself, opening a dental laboratory on the corner of Post and Kearney streets. During a period of three years he enjoyed a lucrative business, and executed work for the leading men of the profession at that time. His success in this line elicited a large number of press testimonials to his skill. In October, 1882, he decided to make the magnificent Territory of Arizona his home, and arrived in this city during that month. He has been here ever since, has led all others in his profession, is married and is happy in the possession of a bright son and daughter, and a charming wife. Mrs. Odermatt, nee Seniorita Carlota Flores, is a granddaughter on the mother's side of the late Don Carlos Yorba, of San Juan, who once owned large tracts of land and immense herds of cattle, horses and sheep, and almost the entire Santa Anna Valley, of Southern California. On her father's, Senor Jesto Flores, side she is closely connected with the famous Godoy family, of Santiago, Chili, the grandmother being a sister to Senor Miguel Godoy, once Balmeceada's Ambassador to France. Mr. Odermatt's residence is one of the most elegantly appointed homes in the city. He is a prominent member of the A. O. U. W., and received the appointment of deputy grand master for the district of Arizona two or three years ago. He was also elected trustee of school district No. 1, a year ago last July, was chairman of the board one year, and is now secretary. Governor Hughes appointed him a member of the Board of Dental Examiners, May 13, 1893, for one year, and re-appointed him May 10, 1894, for three years. He has been a life-long Republican, having no doubt imbibed his inspiration from the presence of the immortal Lincoln, with which he was familiar in his boyhood days while attending Vinegar Hill public school in Springfield, Ill. For two years past he has been secretary of the Republican club, and has occupied other positions. His services on the school board resulted in securing for the schools the handsome metallic ceiling, and every effort made in the line of progress has found in him a willing and liberal supporter. Mr. Odermatt enjoys a lucrative practice and is exceedingly popular in business and social circles. Of an artistic turn of mind, he has devoted his leisure hours to sculp-

turing, his superior work eliciting praise from the press and public. The "Daily Star" has said: "Dr. F. A. Odermatt, of this city, is a sculptor of no mean abilities. He recently carved out of wood a most beautiful model of the old San Xavier Church, and the same will be placed on exhibition in Dr. Martin's drug store for a few days." The "Arizona Enterprise," of Tucson, dated July 7, 1892, was no less enthusiastic in the following article: "Dr. F. A. Odermatt, besides being one of the most skillful dentists west of the Rocky Mountains, possesses a high order of merit as a sculptor. He has recently devoted his spare time to an artistic design in plaster that would do credit to any experienced professional, and he has succeeded in giving the most realistic expression to human physiognomy appropriate to the character his design represents. Had his talents been directed toward this branch of the arts he would surely have achieved a world-wide fame. Dr. Odermatt is the most expert 'filigree' wood worker in this city, if not in the Territory. In this particular branch of business he is par excellence and the several articles of his handicraft exhibit a high degree of mechanical ability rarely met with by one not specially educated in the art." The grandfather of Dr. Odermatt, Zumbuehl (his mother's father) was a noted sculptor of Canton Unterwalden, Switzerland, his works being mostly in alabaster.

WILLIAM HERRING. Mr. Herring was born at New Brunswick, New Jersey, but the family early removed to New York City, where he attended the public schools and the City Normal School for Teachers. When sixteen years old he commenced teaching in the public schools of New York City, and rose rapidly in his profession, in which he obtained marked distinction. His career in conducting the evening schools of the city was one of great success. When only twenty-three years old he was appointed by the Board of Education principal of the largest evening school in the city. This school had over one thousand pupils in attendance, and Mr. Herring had a corps of eighteen assistant teachers. In this school, through his efforts, mechanical drawing was first taught to pupils of the evening schools of the city, and Mr. Herring had the satisfaction of graduating many young men who

have attained distinction in the mechanical arts; among them was Adam S. Cameron, the noted inventor of the Cameron Steam Pump. Mr. Herring soon went from teaching to the profession of law, and was admitted to practice through the regular bar examination, in New York State, and also by completing the course of studies for admission to the bar at the law school of Columbia College, from which institution he obtained his degree of LL. B. With this double-headed admission to the bar Mr. Herring entered upon the practice of the law with great ardor, and soon commanded an excellent practice. He was induced to accept the nomination for the New York Legislature of 1873, for the First district of Westchester County, and although a Republican in politics, and running in a district which had been almost uniformly Democratic, he carried every town in his district, and carried his district by the unprecedented majority of 654. During his legislative year Mr. Herring introduced and successfully carried through the Legislature, the "act to annex the lower portion of Westchester County to New York City," thus perfecting the first step to the "Greater New York." He also introduced and successfully passed the bill establishing the 30th of May as "Decoration Day," New York being the first State to take this step. The measure encountered a vigorous opposition, but Mr. Herring was untiring in its accomplishment, and his speech at the close of the debate on the "bill," won for him the distinction of being "the orator of the House," which at this session contained a crowd of able men in both political parties. Mr. Herring also succeeded at this session in passing an important act amending the law, so as to more clearly define the degrees of murder. This act was hailed by the bench and bar of the State with great satisfaction. After the annexation of the lower part of Westchester County to New York City, Mr. Herring was appointed assistant district attorney of New York City, in which position he served for six years. During this period he was also appointed a member of the Board of Education of New York City, and filled the responsible position of chairman of the committee on the course of study and school books, in the schools of the city. He was also at the same time appointed a trustee of the State Asylum for the Insane at Middletown. Both of these latter ap-

pointments were made by Democratic officials, although Mr. Herring was well known to be a most pronounced Republican in politics. His selection for the important positions above named was regarded by his friends as a merited recognition of his great executive ability and capacity for public business. He came to Arizona in the spring of 1880 and engaged in mining at the Copper Camp, where Bisbee is now located, as manager of the Neptune Mining Company. At the end of seven months his mining superintendent, August Raht, who had been selected by the directors of the company for his learning and skill in mining acquired at Freiberg, reported to the company that copper did not go down in the formation that existed at Bisbee. This opinion was entirely at variance with Mr. Herring's views, and he resigned his position as manager, and took up the practice of the profession of law at Tombstone, where he soon acquired a lucrative practice, and where he has since remained. Mr. Herring has no fondness for public office. He is devoted to his professional work, and has a large and valuable clientage among the leading corporations in the Territory, which requires his industrious attention. He was induced to consent to act as attorney general for a short period under Governor Irwin, and later under Governor Murphy, and he also became a member of the constitutional convention of the Territory, and assisted in framing the constitution for the admission of Arizona as a State, which is now under consideration by Congress. Mr. Herring was the first president of the Bar Association of Arizona, and is at this date the president of the Board of Curators of Territorial Library. The subject of the above sketch weighs two hundred and fifty pounds, is sixty-three years of age, and lacks a small fraction of being six feet tall. Mr. Herring's daughter, Sarah Inslee Herring, studied law in her father's office, and after having been admitted to practice in the district courts and Supreme Court of the Territory, entered the law school at the New York University Law School, from which she was graduated with distinction, standing fourth in a class of eighty-six students. From this university she received the degree of LL. B. She is recognized by the bar as one of the ablest lawyers in the Territory, and is thoroughly accomplished in the practice as well as in

the principles of the law. The following, copied from the Arizona "Gazette," speaks for itself:

"For the first time in the history of Arizona's Supreme Court a woman appeared as advocate yesterday. It has taken 6,000 years for this Territory to reach that state of development. Yet the grave and learned judges experienced no shock of splintered precedent and iron-bound custom in consequence. They had no time to study their sensations over the entirely novel spectacle as Miss Herring enlisted their attention immediately and chained it to the end of her able argument. The case in hand was an appeal from Tombstone, where Michael Welsh recovered a district court judgment against G. W. Seaverns and Quincy A. Shaw for \$5,000. He had been injured while working in their mine. It was the lady lawyer's aim to convince the Supreme Court that this judgment must be erroneous. Her father, Colonel Herring spoke on her side, and W. H. Stillwell trained his heaviest forensic artillery against his two opponents. When Miss Herring rose to close the argument she had several sympathizing lady friends as auditors, many leading members of the Arizona bar. Councilmen Doran, Babitt, Nugent, Jones, Packard and Scott, besides officials and well known citizens. Unabashed by the novel situation she began the presentation of her case coolly, systematically, distinctly, and thus continued till she had covered the whole field under discussion. The judges listened most attentively, and not one in the audience permitted his attention to flag. With consummate art she reserved her strongest point for the last, this being that the injured miner, so far from receiving the damage complained of through his employer's responsibility, had actually brought it upon himself by his own act. Instead of knocking down a rock in the unsteadily timbered stope, with whose dangerous condition he had been familiar for many weeks, by means of hammer and gad, as directed, he proceeded to tear it out by pick. The consequence was that the whole mass of material came down at once, crippling Welsh for life. Old lawyers said after the argument was over that Miss Herring had most probably won her case. Her statement of law, they said, was absolutely correct, and her summary of facts stood uncontradicted. Not in a long time has an abler appellate brief been pre-

sented in terser, more convincing form. One able practitioner, who is often heard in the Supreme Court, said he had never been enthusiastic over woman suffrage, but he could not refuse his admiring tribute to brains, no matter what shoulders they ornamented. He admitted frankly that Miss Herring had excelled him in argument and many of his male colleagues. Particularly pleasing was his daughter's triumph to Colonel Herring. A number of years ago he lost a favorite son, Howard, who was growing up in the law to help his father. The blow came like that to James G. Blaine when his brilliant boy, Walker, passed away. Since then, with the ebbing years, a daughter has trained herself by arduous, patient study, to fill that office chair which the loved son strove to occupy, and some of the old grief, perhaps, has been absorbed in the new pride that now must fill the paternal heart."

A. J. HALBERT. There is not a more prominent citizen and official in Pima County, Arizona, than A. J. Halbert, who was born in St. Francis County, Arkansas, July 2, 1842. He is at present clerk of the District Court of Pima County, and his conduct of the affairs of that office has been such as to commend him to the good opinion of the general public, irrespective of party affiliation. His father, James M. Halbert, was a successful farmer and a prominent politician, holding for a number of years the office of Sheriff of St. Francis County. He died with cholera in 1849. In Mississippi, opposite Helena, Ark., our subject was left motherless at the age of sixteen months, and his father died when he was but seven years old. From that time on until he was able to look out for himself, young Halbert had the usual hard luck of an orphan. He had limited chances for an education, and was obliged to take his place among the negroes in the cotton field until the war broke out. At the first call for troops, in 1861, he enlisted in Colonel Marmaduke's Regiment, Hindman's Brigade, and was wounded in the battle of Shiloh the April following, a ball passing through his thigh on the evening of the seventh. He was left on the battle field, but later was taken to the field hospital, where he remained about three weeks. There on account of his wound he was discharged from that

branch of service, and in the fall of that year re-enlisted in Dobbin's Regiment of Arkansas Cavalry, with which he remained until cessation of hostilities. He was wounded the second time near Helena, Ark., and still again at Fayetteville, Ark., on Price's last raid. However, these wounds did not prevent him from again enlisting, and he joined his regiment, but did not surrender with the rest of the company. Instead, he started out to join General Kirby Smith, but later surrendered and made his way to Arkansas, where he was engaged in merchandising for a short time. He held the rank of sergeant during the war, and was a brave and faithful soldier. In the year 1870 he went to California and located in Kern County, where he tilled the soil, and where he was later elected Supervisor of that county, serving until 1879. He then came to Arizona and located at Tempe, where he still makes his home. Mr. Halbert is actively engaged in farming, is the owner of a small ranch and also some town property. He was Sheriff of Maricopa County one term, also Supervisor one term, and under Judge Bethune was made district clerk of Pima County, August, 1894, which position he occupies at the present time. He has been prominently identified with politics since his majority, and is influential in his county. As a citizen he is public spirited and helpful toward all public interests, for no man has the prosperity and well being of the great mass of his fellow citizens more nearly at heart than he. Mr. Halbert was first married to Miss Nannie Calvert, who died in 1876. Three children were born to them, only one now living—Nettie Miller. In the year 1888 Mr. Halbert married Miss Emma Criley, and they have three children as follows: Annie Walker, A. J., Jr., and Nina L. Mr. Halbert is a member of the Independent Order of Odd Fellows.

JOHN A. BLACK. The fondness for personal adornment is a phase of character as old as the Garden of Eden. It dates from the birth of the human animal, and can often be detected in the brute. Cleopatra, the dusky beauty of the Nile, decked with jewels that cost the forfeiture of kingdoms, is an example of the height to which it reaches. But this was an extreme. A moderate amount of adornment enhances the rarest beauty. There is nothing more fitting

for a gift than a jewel. John A. Black, proprietor of the largest jewelry store in Arizona, is a practical, highly educated gentleman and one aptly skilled in every branch of his calling. He is a native of Scotland, born in Aberdeen in 1853 and educated in Union Row Academy. When but a boy he served an apprenticeship at the wholesale dry goods business in his native land, and in 1873 crossed the ocean and settled in Toronto, Canada, where he was engaged in the wholesale dry goods business for less than a year. From there he went to Chicago, where soon after arriving he was employed in the wholesale jewelry business, and later represented one of the largest houses in that line in Chicago, through Colorado, Wyoming, Utah and New Mexico, for several years, making Denver his headquarters. Mr. Black was married in Chicago in 1882 and gave up traveling. An opening presented itself for a jewelry store in Tucson and he began business there in April, 1883. Since that time he has resided in that flourishing city and carries a large and well selected stock that would do credit to a much larger city than Tucson. His patrons are necessarily from the higher classes and his success in business is enhanced by his careful alliance with the rule of commercial probity. Mr. Black is official timekeeper for the Southern Pacific Railroad, and was Commissioner of Immigration for two years, during Governor Wolfley's administration. We quote from his report in this volume. He has also held a number of other official positions during his residence in Tucson, in all of which he has invariably reflected credit on himself and on the institutions with which he was connected. Major Black is an ardent Republican in politics and an energetic worker for his party.

L. R. SHAW. This wideawake man of affairs and substantial, intelligent citizen has for a number of years devoted his time and attention to stock raising and the dairy business two miles east of Phoenix, Arizona, and in pursuing this branch of human endeavor has met with more than the ordinary degree of success. He is a native of Nova Scotia, born in Hants County July 2, 1838; son of David G. and Mary J. (Johnson) Shaw, both born in Nova Scotia, but of English parentage. The great-great-grandfather of our subject was a Royalist and came over from Eng-

land in about 1711, settling his family in Nova Scotia. Later he went to Rhode Island and there died. The property is still in the hands of the Shaw family. Many members of this family were prominent politicians, professional men and ship builders and all were well-to-do. For twenty-five years the father of our subject was a successful Baptist minister and home missionary, and his cousin, Professor William Shaw, elder, was professor in one of the New England universities. The father died in Nova Scotia in April, 1888, but the mother had passed away in 1869. They were the parents of three children, two sons and one daughter, of whom our subject was the eldest. The next in order of birth is Mrs. Bessie Kennedy of Halifax, Nova Scotia, and then Wilburforce, also of Halifax, where he was engaged in merchandising. L. R. Shaw was educated in his native place, supplementing a common school education by a course in Acadia Academy, and in 1861 sailed for California by way of the Isthmus. He engaged in farming and stock raising in the West, and for four years was in Petaluma, California. Later he was in the Willamette Valley as traveling agent, following this for a number of years. Going to Nevada, he spent about a year there, nearly all the time in the saddle, and experienced many hardships. For two or three months at a time he was only out of the saddle long enough to eat and sleep and often during his lifetime stopped at night with Indians, by whom he was always fairly treated and by whom he was called "Mr. One Hand" from the fact that he has but one hand. In the year 1877 he came to Arizona and took the first train that ever left Dos Palms. About twelve miles from the Colorado River they unloaded and put their wagons together and made the rest of the way in these, going by way of the Gila River into Arizona. They came to a place known as the Salt Wells Station, and here Mr. and Mrs. Shaw stopped and kept a station for the weary traveler for about three months. On the 1st of September, 1877, they reached Phoenix, and Mr. Shaw purchased a quarter section of railroad land. When the land in Arizona was thrown open for settlers by the Government Mr. Shaw made his tract a homestead. He has a fine tract of land now, all under cultivation, and it is considered one of the best ranches in the vicinity. Stock raising and dealing in horses and hogs has

been his principal occupation, but he finally drifted into the dairy business, and has been very successful in this. At the present time he has about fifty head of fine cows and sells all the milk from the wagon. He also deals in horses, chickens, goats, in fact most anything in the stock line, and gives all his attention to his business, declining all political honors that have been tendered him. On the 29th of November, 1869, he married Miss Annie Smith, a native of Nova Scotia, where their union was celebrated, and they have one child living, Victoria B., who is a school teacher. Mrs. Shaw's ancestors came from England during the Revolution, and some of them were prominent in political affairs. They, like Mr. Shaw's ancestors, were British Royalists, and as a rule all thrifty, well-to-do people. Mr. and Mrs. Shaw were charter members of the Baptist church at Phoenix and have ever been interested in church work. In his dairy business Mr. Shaw has introduced advanced methods, new machinery, etc., and owns the only butter extractor in the valley, this machine extracting butter from the new milk. He also brought into the Territory the second, or third, cream separating machine. In company with Mr. Bowell he has brought into the Territory the first Babcock testing machine. Mr. Shaw is a member of Phoenix, Tempe, and Mesa Dairy Produce Company, and is a charter member of the Citizens' League, which is revolutionizing political economy in Arizona. In politics Mr. Shaw is Independent and Mrs. Shaw and daughter are members of the W. C. T. U. and the Independent Order of Good Templars

HON. E. W. WILBUR. Although established at a comparatively recent date, it must be admitted that one of the most notable banking houses in Arizona is the Mesa City Bank, which was organized and opened February, 1893, with a paid up capital of \$20,000. The men who incorporated it have so long been known in the financial and commercial world, possessing to a more than ordinary degree the confidence and good will of the public, that the bank has been popular from its very inception. William Christy holds the responsible position of president, C. W. Crouse vice-president and E. W. Wilbur cashier. Hon. E. W. Wilbur was born in Greenwood, McHenry County, Ill., April 16, 1845;

son of O. G. and Elizabeth (Willis) Wilbur, natives of Massachusetts. The parents moved to the Prairie State in 1843, settled in McHenry County and there the father tilled the soil all his life. The mother is also deceased. Young Wilbur, after growing to sturdy manhood on the farm and after securing a fair education in the common schools, began the study of medicine and was graduated from the medical department of the University of Philadelphia in 1870. The same year he commenced practicing at Rockford, Iowa, and remained in active practice until the spring of 1892, when he made his way to Arizona. While a resident of Rockford he was president of the School Board and served six years in the State Legislature. He was a member of the Iowa State Medical Society and others, and was surgeon for the Burlington, Cedar Rapids & Northern Railroad for about twenty years. Mr. Wilbur was a well known and popular man in Iowa and is also influential and popular in Arizona. In 1892 he located at Mesa City, and there he has since resided. He was the organizer of the Mesa City Bank and has been its most efficient cashier since its organization. He has retired from active practice and has turned his entire attention to the banking business. Mr. Wilbur owns considerable ranch property, is engaged in buying and selling land, and established the Mesa Real Estate Company, with E. W. Wilbur manager and T. E. Pomeroy secretary. They do all kinds of real estate and loan business and are wide-awake, live men. In all his enterprises Mr. Wilbur has met with unusual success. He is a member of the Woodmen of the World, and in politics is a Republican. In the year 1871 he married Miss Delia Hoy, a native of McHenry County, Illinois, and they have four children living—George H., Walter H., Ethel and Everett.

LUIS PROTO, of Proto Brothers, general merchants and ranchers, was born of Greek parentage at Beria, Macedonia, December 24, 1854. He came to New York in 1879, and from there went to St. Louis, Mo., San Francisco and Santa Cruz, Cal., where he engaged in the drug business. He came to Tucson, Arizona, and then Tombstone, in 1882, engaging in general merchandise, and shortly afterward moved to Nogales, where he has resided ever since. He here has taken an active interest in public affairs, and

was president of the Nogales Protective Association, organized to fight the Mexican land grant upon which Nogales was situated, which was successfully accomplished.

ANTONIO PROTO, brother of Luis, was born in Beria, Macedonia, in 1844, came to the United States in 1873 and was naturalized August 19, 1875, at San Francisco, Cal. He is a member of the firm of Proto Brothers, dealers in general merchandise.

PROFESSOR F. J. NETHERTON, Superintendent of Public Instruction, was born in Contra Costa County, California, March 7, 1865. He was reared on a farm and attended the country public school at Point of Timber, same county, till he was fifteen years of age. At that time his father, having lost his sight, he had to assume the management of the farm of 480 acres for four years. At the age of nineteen he entered the Oakland High School, from which institution he was graduated in December, 1887, having made a good record in his work there and having taken a leading part in all the high school societies. During vacations he worked on the ranch and at whatever he could get to do to help pay his way.

After graduating he was employed on the "Oakland Enquirer," the leading daily of Oakland, for several months, but in the fall of 1888 he came to Arizona and accepted the principalship of the Mesa public schools, in which capacity he served successfully for five consecutive years. Resigning his position there as principal in 1893, he became Superintendent of Public Instruction, by virtue of which position he became a member of the Board of Directors of the Territorial Normal School, a regent of the Territorial University, a member of the Territorial Board of Education and a member of the Territorial Board of Examiners. Prof. Netherton took an active part in the organization of the Arizona Teachers' Association and was twice, in 1893 and 1894, unanimously elected president of that organization. In 1894 he was a delegate from Arizona to the National Editorial Association which met at Asbury Park, N. J., and the succeeding year assisted in the organization of the Arizona Historical Society, the Summer School of Science and Pedagogy and the Arizona Anti-

quarian Societies. He is now serving his fourth year as a member of the City Council of Mesa City, and is the principal stockholder in the "Mesa Free Press," a weekly paper published in Mesa. As Superintendent of Public Instruction he has succeeded, to a great extent, in raising the standard of excellence in the teaching force of the Territory, and in arousing an interest in educational matters generally. His policy on matters of school economy, etc., is ably given in his addresses before the Arizona Teachers' Association and biennial report to the Governor. He was the author of the bill providing for the establishment and maintenance of high schools passed by the last Legislature, also of the bill providing for the apportionment of the school moneys of the average attendance instead of upon the census population, and is an advocate of a law providing for a gradation of teachers' salaries on a basis that will induce the best talent to make special preparation for and engage in primary work. During the years 1893 and 1894 he was Territorial manager of the National Educational Association for Arizona. He has been fairly successful financially, and is a genuine Jeffersonian Democrat.

COLES BASHFORD. The subject of this sketch was born near Cold Spring, Putnam County, N. Y., January 24, 1816. After receiving a classical education at Wesleyan University, now Genesee College, Lima, N. Y., and seven years' study of law, he was admitted to practice his profession as an attorney of the Supreme Court of the State of New York on the 28th day of October, 1842.

Thrown in the early years of his boyhood upon his own resources for a livelihood, he soon learned the importance and benefits of self-reliance and self-cultivation, and moulded for himself the qualifications necessary in the character of a man in a country like ours. His natural ability and indefatigable application to study formed a future that no difficulties could impede, no obstacles could overcome.

His early and rapid advance in his profession and in public affairs were due, no doubt, to the habits of industry and energy which he had early in life acquired and which marked his whole career.

He immediately entered into a successful

practice of his chosen profession in Wayne County, New York. On June 7, 1847, as a candidate of the Whig party, he was elected district attorney of the county within which he lived, receiving 2,277 votes against 2,039 votes cast for Aldrich, the candidate of the Locofocos. His duties as prosecuting officer were performed with such energy and ability that his conduct of them was complimented by William H. Seward and other eminent lawyers.

In 1850 he resigned his office of district attorney and moved with his family to the State of Wisconsin, locating at Oshkosh. Here he entered upon the practice of law, and at once took rank with the leading lawyers of his State. In 1852 he was elected to the State Senate from Winnebago County as a Whig, although the county was strong against him politically, receiving 1,098 votes against 1,070 votes cast for Gabriel Bouck, Democrat. In 1854 he was tendered the nomination for Congress in his district, but declined, preferring a re-election to the State Senate, of which he had become an acknowledged leader. He was re-elected by a majority of over 800 votes.

It was during the year 1854 and 1855 that the agitation of the extension of slavery had commenced the embittered broil of sectional feeling under the caption of the Missouri Compromise. The several States of the North and South, through their Legislatures, were agitating for and against the slavery question on account of the effort made for its extension in Kansas and Nebraska, and were instructing their Senators and members of Congress to vote for and against slavery, or for the repeal of the Missouri Compromise Act. Such a resolution was before the Wisconsin Legislature in 1854 and the feeling was warm and bitter.

Coles Bashford was one of the first to raise his voice against the extension of slavery. A motion to indefinitely postpone in the State Senate a joint resolution which had been carried through the lower house, cleared the field for action. Governor Bashford was the first to speak on the question. He refused to be gagged by the Senate, and proceeded to raise his voice in an eloquent peroration against the spreading of the slavery evil in any State or Territory. His withering denunciation of Senator Stephen Douglas of Illinois, the author of the Nebraska bill in

Congress, earned for him a reputation which spread throughout the North. Upon the organization of the Republican party at Pittsburgh, in 1854, Coles Bashford was one of the first in his State to espouse the principles as enunciated in their national platform, and in 1855 he was the logical candidate of the new party in Wisconsin for Governor of the State. On the 5th day of September, 1855, the Republican party, in convention, after passing a strong anti-slavery platform, nominated Coles Bashford as their candidate for Governor on the first ballot, he receiving 124 votes out of 210 votes cast in the convention. After nominating a strong ticket the convention adjourned to enter zealously into the campaign, determined to succeed in electing their whole ticket. William A. Barstow had been renominated by the Democrats and a strong and aggressive campaign was the result. The election was very close on Governor, though the Democrats were successful with every other candidate on the ticket, but the Board of State Canvassers counted Barstow in, on some pretext of irregularities in certain counties. Barstow received the certificate of election and was regularly inaugurated at the capitol on the 15th day of January, 1856, and took possession of the office.

Governor Bashford, believing he had been justly elected, took the oath of office the same day and immediately began suit by quo warranto before the Supreme Court of the State to set aside, on the ground of fraudulent returns, the certificate given to Barstow.

The testimony elicited during the trial unmasked the villainy and treacherous designs by which it was attempted to disfranchise the people and elevate Barstow again to the Governorship. A more stupendous crime was never concocted or more signally failed; for the people rose in their majesty and a just and righteous tribunal ousted the usurper and gave to Coles Bashford the office to which he was entitled and from which he was deprived through fraud and usurpation. The counsel employed in the case were among the most eminent legal minds of the West and the contest lasted for three months, and the arguments of counsel and opinions of Judge Whiton occupied some two hundred and fifty closely printed pages of the Fifth Wisconsin Reports.

The demeanor of Governor Bashford through-



J. D. MONIHON.

out the exciting contest was worthy of a Cromwell. Unmindful of threats, above the contumely and scorn of his assailants, strong in a righteous purpose, unflinching in his just demands and fully aware of the great stake at issue he went on sternly and boldly, until fraud was unmasked, villainy suppressed and the cause of truth, freedom and the purity of the ballot box triumphed. Never was a man subjected to severer test and never was truer mettle or purer character exhibited, and Coles Bashford won not only the plaudits of friends, but the admiration and respect of all honorable political opponents.

On the 25th day of March, 1856, Governor Bashford, in obedience to the will of the people, assumed the duties and responsibilities of the office of Governor of Wisconsin. At the expiration of his term the following highly complimentary but well deserved resolution was unanimously adopted by the State Convention of his political friends:

"Resolved, That the warmest thanks of the people of Wisconsin are due to Governor Bashford for the zeal, energy, ability and perseverance with which he prosecuted to a successful issue, before the Supreme Court of this State, his claim as the legally elected Governor of Wisconsin; that by this act he upheld justice, law and the Constitution, and vindicated the rights of sovereignty of the people; that we honor him for his administration of the State government, and that wherever justice triumphs over fraud and the rights of the people at the ballot box are held sacred, the name of Coles Bashford will be held in grateful remembrance and respect."

Early in the summer the re-election of Governor Bashford began to be agitated by the people and the press. No name rallied the hosts with greater unanimity and enthusiasm than his. He had a strong hold upon the popular heart, as the successful leader of the Republican party—the first successful candidate for Governor of the afterward great Republican party in the history of the organization in any of the States. He had won the honest masses of the people in the conflict of two years before, which terminated after a most bitter struggle, that demanded no ordinary courage on the part of the man elected as the champion of the people. Early in the year he had announced that he would not be again a candidate and only at the urgent request of many

of his friends, could he be prevailed upon to refrain from a positive refusal to accept a renomination under any circumstances. He was actuated in this by an unaffected desire to return to private life and to his business as a private citizen, which had greatly suffered from unavoidable neglect during his term of office. He was strongly urged by his friends, both before and after the meeting of the convention, to accept a renomination, and a large number of delegates attended with the determination to renominate him; but he positively declined in a speech before the convention, in case they could unite harmoniously upon some other man. Governor Bashford's political enemies, fearing that he would be a candidate for re-election, made every possible attack upon him. The struggle for the office in the court of the State still rankled within them, and they made charges affecting his administration of the office. Governor Bashford instantly demanded an investigation of all his political acts by the Legislature of the State, and the committee, consisting of two Democrats and three Republicans, unanimously exonerated him from the charges made against him. At the expiration of his term of office he retired from the cares incident thereto, followed by the cordial respect, esteem and confidence of the masses of the people as an upright, independent and faithful public servant, whose administration had reflected honor upon the State and the people who elected him.

In 1859 Governor Bashford was requested to become a candidate for circuit judge of the Tenth Judicial District of the State, the request being signed by nearly all the members of the bar of the circuit. His refusal was based upon the fact that his professional practice had become much more profitable to him than the judgeship could be.

In 1860 his political friends urged him by voice and by petition to become their candidate for Congress; but he still preferred to devote himself to the practice of law. The winter of 1862-63 he spent in Washington, and no man from the West had greater influence there.

After the organization of the Territory of Arizona his fondness for pioneer life led him to that country to take his place and chances with others in the building up of the new Territory. He accompanied the newly appointed officers to

their new home and assisted them by his counsel in organizing the Territorial Government at Navajo Springs on the 29th day of December, 1863. Governor Goodwin, finding that the laws of New Mexico must govern the young Territory until a Legislature convened and enacted others for Arizona, recognized the want of an able adviser and so appointed Governor Bashford attorney-general. As such he was the legal adviser of the Territorial officers and prosecutor of all cases on behalf of Arizona. As at that time the Territory was but one judicial district, the duties of the office demanded severe service, but he performed them with unusual energy and ability. In their performance he was forced to travel to all parts of the thinly settled country and as the Indians were then intensely hostile he took most desperate chances. Many and many were the trips that he was forced to take alone, but he escaped the arrows and scalping knife of the savage foe.

Governor Bashford was the first lawyer admitted to practice in an Arizona court, his admission occurring in May, 1864, at Tucson. He was then, as he was to the day of his death, the first in standing, the first in ability and the first in respect to the profession generally.

He was chosen by Pima County a member of the Council of the first Legislature and elected the president thereof, rendering excellent service in the adoption of the code by that body and other important legislation. He was re-elected a member of the Council of the Second Legislature and was chairman of the Judiciary Committee, and the records show that his share in framing a code of laws for Arizona exceeded that of any other member.

Without solicitation or expectation on his part, he was in 1866 the unanimous nominee of a convention of over one hundred citizens of Pima County, as their candidate for delegate to Congress—party lines at that time not having been drawn. He was at the Territorial election on the 5th day of September, successful by 491 majority over Charles D. Poston and 841 majority over Samuel Adams, or 343 majority over both. He represented Arizona during the Fortieth Congress with great credit to himself and the Territory. At the close of his term President Grant appointed him Secretary of Arizona for four years and in 1871 the Legislature selected him

to compile the various session laws into one volume. This difficult task was performed with exactness and intelligent regard for convenient reference. In 1873 President Grant, recognizing that the administration of Governor Bashford as Secretary of the Territory had been so correct and economical, re-appointed him without the slightest opposition.

This office he held until 1876, when he resigned and removed from Tucson, the then capital, to Prescott, where he was largely interested in business, intending to spend the remainder of his days in the enjoyment of the society of his family and determined to lay down forever the cares incident to public life. His rest was well earned. During the thirty-six years of his public life he had passed through some of the most exciting and trying times of National, State and Territorial history and the burden upon his shoulders had never been light. In all places of public trust he did everything well; there being method and system in all he did. His judgment was of a superior order, his purposes were honest and his performances most faithful.

On April 25, 1878, at Prescott, Governor Bashford breathed his last.

The above is a brief outline of the facts of his long and eventful public career, but there are other facts, not known to the world at large, which endear his memory to those who knew him best. He was a good friend to his deserving acquaintances. Always kind and considerate, he had ever a good word of cheer to any who sought his advice when in trouble. But, though a man of high culture and great candor, those who knew Governor Bashford most well ascribe to him the largest amount of serenity of thought and temperance of action.

Governor Coles Bashford may rest his claims to public remembrance upon the faithful and thorough manner in which he performed the public duties entrusted to him by the people of the several States and Territories in which he lived. He may rest his title to the respect of the bar upon his comprehensive and exact knowledge of the principles and practice of the profession he adorned; but beyond this he will be best remembered by those whose privilege it was to know him intimately for that he might truthfully say with Pericles, "Tell the people that I never caused an Athenian to put on mourning."

All that remains of Coles Bashford rests in Mountain View Cemetery, Oakland, Cal., overlooking the Golden Gate. The setting sun as it sinks into the broad expanse of the Pacific, sheds its golden rays full upon a solid shaft of granite, upon which are inscribed beneath his name the line which he was so fond of quoting:

"Write me as one that loves his fellow-men."

JOHN F. BLANDY. One of the representative engineers, doing an extensive business and representing some of the largest companies in this country, is John F. Blandy, who has been a resident of Prescott, Arizona, since 1880. He is a thoroughly practical engineer and is noted for his ability, both technical and practical. Mr. Blandy is a product of Delaware, born at Newark, April 24, 1833, and inherits sturdy English blood on the paternal side. His mother was of old Maryland stock. Young Blandy first attended school in his native place, but subsequently entered college, although he did not take a literary course. When eighteen years old he entered the engineer corps of the Reading Railroad, but later left there and spent two years in an engineering school in Germany. After returning to this country he went to Lake Superior copper mines and was actively engaged in his duties as an engineer there for six years. In 1863 he went to the anthracite coal region of Pennsylvania and took charge of the Little Schoolkill Company's works. This was a badly crippled company, but Mr. Blandy, by his able and skillful management, brought it out of trouble and the stock has stood at 130 ever since and is considered as good as a bond. He remained with that company as president and manager until 1872, having disposed of the mining property and closed up the company's active business. After this he was in the coal fields of Pennsylvania until 1880, when he came to Arizona, as above mentioned. He is well known all over the Territory as a practical and thorough engineer, and his long and meritorious career in that capacity entitles him to the highest commendation for ability, integrity and intelligence, and this is gladly accorded him by all who know or have had dealings with him. He was Territorial geologist for two years and the following is an extract from the Governor's report for the year 1890: Hon. John F. Blandy of Yavapai County was appoint-

ed to the office of Territorial geologist April 10, 1889, and resigned November 1, 1890, and no other appointment to the office has been made. In my judgment a more capable and efficient man for the office cannot be found in Arizona than Professor Blandy. He has both experience and theoretical education, being a practical miner, as well as a graduate from a school of mining engineers. During his incumbency of the office the professor traveled over the Territory, visiting the different mining sections, and made three reports to the Governor, two general reports and one special, which are herewith submitted. The expense of the office to date has been \$2,994. If the Territory had greater financial strength I would favor continuing the office, but at this time I recommend that the office of Territorial geologist be abolished.

JOSEPH BOWYER, mining expert and metallurgist of Phoenix, Arizona, first saw the light in Philadelphia, Penn., April 20, 1846. His father, Joshua Bowyer, was born in Manchester, England, and was a cotton manufacturer, carrying on his business in the outskirts of that city for many years. During the latter part of his life he came to America and settled in Utah, where he tilled the soil until his death. To his marriage were born five children, two sons and three daughters, three of whom survive at the present time. Joseph Bowyer, the only son living, attended the schools of Philadelphia until fifteen years old and then emigrated with his father and one sister, Sarah Ann, to California in 1861. They went by train and by steamer as far as Omaha, which was but a small hamlet at that time, and there bought teams and joined a train of twenty-four wagons bound for the West. In crossing the plains they were obliged to corral against Indians three times and at one time were threatened with destruction, but made peace by giving three ponies, some provisions and two rifles with ammunition. About November 20, 1861, they reached Carson City, remained there one season, and then removed to Salt Lake City, Utah, where the sister married the following season. Mr. Bowyer, Sr., proceeded to Southern Utah, took up a homestead and there passed the remainder of his days. Our subject remained in Salt Lake City, attended Salt Lake University from which he was graduated, and finished a

course in telegraphy. Later he became the operator at Ogden, Utah, during the construction of the Union Pacific and Central Pacific Railroads, and was thus employed from 1867 till 1870. At the beginning of the construction of the Utah Central he resigned his position with the Western Union and accepted a position as assistant agent at Ogden for the Utah Central, where he remained until he was removed to Salt Lake City. There he was appointed agent for Utah Southern, and when the terminus landed at Sandy Station he removed his office to that point. This was the place where all the smelters and ore were shipped. Mr. Bowyer remained there until 1874, when he went to Idaho and engaged in mining, having organized a company at San Francisco known as the South Mountain Consolidated Mining Company. They opened the South Mountain mines and worked there for two years. Then Mr. Bowyer removed to Silver City, Idaho, and engaged in merchandising, purchasing a ten thousand dollar stock of goods. This business he carried on until 1879, when he left for Arizona, locating December 25 of that year in the Sansimon Valley, which was at that time the terminus of the Southern Pacific. He organized the Texas Consolidated Mining Company and worked a group of eight claims known as Texas group. Building a smelter he worked the mines until 1884, when he removed to Benson and accepted a position with the Benson Smelting Company as general ore buyer, continuing with the company five or six years. In 1890 he came to Phoenix, Arizona, and here he has since made his home. In 1891 he became associated with the Crittenden Smelting Company and put up the smelter for that company, but later went to Sonora, Mexico, where he took charge of the mines for the same company. After getting everything in shape for shipping ore he returned to Crittenden and started the smelter, which he ran for one year. He was then appointed general manager for the Elplomo Mining and Smelting Company at Salario, Arizona, which position he still retains. In 1893 Mr. Bowyer leased the mines and ran them himself for some time. He is now engaged in prospecting mining property and is one of the finest mine experts in the Territory. He has a number of valuable mining claims, and is also one of the best assayers to be found. Mr. Bow-

yer owns considerable real estate in Phoenix and is in comfortable circumstances. Socially he is an Odd Fellow. Mr. Bowyer was married in 1871 to Miss Dorleskie Taylor, a native of Kaysville, Utah, and they have three children, Joseph D., Roy T. and Eva L. He and family have had some experiences with the Indians, but always escaped without injury.

HON. J. E. WALKER. Hon. J. E. Walker, clerk of the District Court of Phoenix, Arizona, is one of those calm, self-poised and reliable characters in whom nature and culture have united in making a product that all men respect. His career has been a busy and an honorable one, and in every position to which he has been called he has acquitted himself with credit and to the satisfaction of all concerned. Mr. Walker was born in Madison County, Virginia, September 24, 1847, and comes of an old prominent family of that State, his ancestors having settled there at a very early date. His parents, James W. and Louise (Elliott) Walker, were both born in the Old Dominion and the father followed farming up to the opening of the Civil War. He then enlisted in Mahone's Brigade and served his cause most faithfully until the surrender at Appomattox Court House, being on Mahone's staff with the rank of major. After cessation of hostilities he began the study of law, was admitted to the bar in his native State, and there practiced for a few years. Sometime afterward he moved to Washington, D. C., and has since been engaged in the practice of law there. He served in the Virginia Legislature the year of reconstruction. To his marriage were born, of whom our subject is the eldest, three sons and six daughters. He was reared on a farm, and in addition to a good practical education received in private schools, attended Virginia Military Institute a short time. Then returning to the farm he was occupied with his duties until 1873, when he went to California. While in this State he was engaged in different pursuits at various locations until January, 1881, when he went across the line to Arizona, prospecting in the southern part of the Territory. For some time he was engaged in mining and afterward clerked in a store in Tucson for about a year. In 1886 he was appointed clerk of the Third Judicial District of Arizona by Judge W. W. Porter and was an incumbent of

that position through President Cleveland's administration. He also held the position as clerk of the Supreme Court at the same time. After leaving that office he became connected with the Hartford Bank, and in January, 1893, was appointed deputy sheriff, a position he held for a year. In January, 1894, he was appointed to his present position and has discharged the duties of that office in a most able and satisfactory manner. Mr. Walker is a member of the Masonic Fraternity, Knight Templar, Mystic Shrine, and is also a member of the A. O. U. W. of Tucson. He was married in 1886 to Miss Matilda Robbins, a native of the Buckeye State. He and wife are members of the Episcopal church, in which he is warden.

FRED G. HUGHES was born at Cheltenham, England, March 30, 1837, and while a child was brought to the United States by his parents and passed the earlier part of his life in the city of New York, receiving his education in the public schools of that city. At the age of sixteen he left home and struck out for the Golden State, and upon his arrival there first went to mining near old Hangtown. After about a year's stay he began prospecting on the Feather, Scott and Klamath rivers, and while in the latter country he had his first taste of Indian war with the Rogue River Indians. In 1857 he returned south and settled at New York Flat, in Yuba County, mining at that place during the summer and winter, and at Rabbit Creek, a camp about thirty miles above there, during the spring. In January, 1860, in the excitement upon the discovery of the Comstock, he struck camp and went to the new El Dorado, then known as Washoe. While in that country he joined the noted Ormsby party in their campaign against the Pi Utes. This was a party composed of lawyers, business men, young clerks, etc., who had gone to Washoe in the excitement and who had organized for military operations against Winnemucca and his tribe of Pi Ute Indians for having killed two brothers named Williams on the Carson. This expedition was intended to wipe the Indians off the face of the earth; but out of 103 men composing the party over two-thirds were left dead along the banks of the Truckee, and among them some of the most noted men of California. This affair is misnamed the "Washoe massacre." It

was nothing of the kind. The whites were hunting a fight, got it, and got badly whipped. Mr. Hughes afterward joined Jack Hays, the Texan ranger, in his campaign against this same tribe, wherein they made short work of them and ended the war. The outbreak of our civil war found him at New York Flats placer mining, and a candidate on the Douglas Democratic ticket to represent old Yuba in the Legislature. It was during that political campaign that Lincoln made his first call on California for 1,500 men, which was to be known as the California Column. The militia company of which Mr. Hughes was a member was accepted as one of the companies of the column, and he immediately withdrew as a candidate for political honors and joined his company to go to the front.

It was with the California Column that he came to Arizona, and after serving with it until the end of the war, he determined to make Arizona his future home. His life here is known to almost every one. He crossed the Colorado River in December, 1861. At that time not a soul, other than Indians, resided between Tucson and the Colorado River on the west and Tucson and the Rio Grande on the east, and aside from the almost abandoned overland road which crossed the Territory from east to west, Arizona was virtually a "terra incognita" dominated by the Apache Indians. The few forts in the Territory had all been abandoned to the Confederates at the outbreak of the rebellion, and they in turn had abandoned them to the Apaches. The overland mail of Wells, Butterfield & Co. had been driven off and abandoned to these same Indians a year before, and no attempt had been made to re-establish it. Every tribe of Indians of note in both Arizona and New Mexico were on the warpath. The Apaches, the Kiowas, Navajoes, Cheyennes and Comanches all had their scalping knives ready to raise the hair of any whites they might encounter. Tucson at that time was a little hamlet in the desert occupied by about half a dozen Americans and a few Mexican families, and the town was surrounded by an adobe wall some six or seven feet high to protect its inhabitants from the incursions of the Apaches, who, as before said, held complete sway over the whole Territory.

At this time the Confederate troops of General Sibley held possession of the town and the mis-

sion of the California Column was to drive the Confederates from both Arizona and New Mexico and re-establish Uncle Sam's authority therein.

It was a strange condition of affairs which confronted both the Union and Confederate troops, for while their hands were turned against each other the hands of the Apaches were turned against both.

It did not take long to establish Uncle Sam's authority in Arizona and New Mexico. The column occupied Tucson on the 20th day of May, 1862, and by the 1st day of August of the same year every town, hamlet and fort in both Arizona and New Mexico were again under the protection of the United States Government.

In those days it used to take forty days to get a letter or paper from San Francisco. The battle of Val Verde was fought on the 22d day of February, 1862, a little over three hundred miles from where the California Column, of which Mr. Hughes was a member, was at that time, yet the first news received of that battle was upon their entry into Messillo, New Mexico, about the 1st of August. There were some Confederate papers found which had been left behind, giving an account of the battle.

After ridding the country of the Confederates the troops were ordered to turn their attention to the Indians. A portion of the column was ordered against the Apaches and another portion was ordered up the Rio Grande to operate with Kit Carson's regiment against the Navajoes. The Navajoes at that time were considered the most powerful and wealthy tribe in the West, but in a few months they were subdued and prisoners on the Bosque Redondo reservation in New Mexico.

About this time a party under an old mountaineer, Joe Walker, had discovered some placer gold mines where the town of Prescott now stands, and the Federals were ordered there for the double purpose of protecting the miners from the Indians and also to prevent them from organizing Confederate companies in their rear, and it was known that all all of Capt. Joe Walker's company were in sympathy with the Southern cause.

At this time the Government had appointed civil officers to come out and form a Territorial government for Arizona. These officers were to

meet the troops further up the river and were to accompany them to the new El Dorado, and there establish their headquarters. The troops left Fort Craig October 16, 1863, and proceeded to old Fort Wingate in the Navajo country. The new officials failed to arrive and November 17th, as the season was growing late, the troops decided to move without them. The expedition was composed of about forty wagons, three-fourths of which were ox teams. The winter proved to be severe, and December 18th they had reached the base of the San Francisco Mountains. The oxen had been giving out for several days and it had become a necessity to either destroy a portion of the stores or cache them. The latter plan was adopted, and Mr. Hughes was left with a dozen men to guard the cache until the expedition could go on to their destination, establish their post and return with relief, which occurred about a month later. The relief expedition brought with them all their mules and the night they arrived the Indians attacked the camp and stampeded every hoof of the stock. The relief party were compelled to retrace their steps on foot to Chio Valley, where they had established the post, and they finally brought the ox teams out and relieved the cache guards. Mr. Hughes finally reached Fort Clark, the newly established post, about the 1st of March, and from then until the close of the war was engaged in scouting and fighting Apaches.

At the close of the war he settled on some land on the Rio Grande just above Fort Craig. The Indians were still very bad, and he found ranching under such difficulties anything but profitable. It was while he was living there the settlers laid off on his land the town of San Martial, and he was duly elected the first alcalde of the district.

While serving as alcalde at this place in 1868 the settlers had a fight with the Apaches at a place called Canada Alamosa, about twenty-five miles below Craig, in which the Indians were signally whipped. A few days after this fight Loco, one of the Apache chiefs, came into San Martial and wanted to make peace. Not having authority to treat with the Indians Mr. Hughes arranged to take him down to Fort Craig the next day, where he could treat with the commander of the post. Loco had brought with him half a dozen squaws, who understood the

Spanish language, which was spoken by a majority of the citizens of San Martial, who were Mexicans. As nearly every family had lost some of its members by the hands of these Indians they began to talk about hanging the party of Loco, and the squaws, understanding their talk, became frightened, and fled to the mountains again. The next morning Mr. Hughes took their trail and followed them into the Magdalena Mountains and found some two or three hundred Indians camped there under the afterward noted Chief Victoria. The Indians were surprised to see him ride into their camp alone. To this act is attributed the reason the Indians ever afterward had so much confidence in Mr. Hughes. He had no trouble in making arrangements with them to meet him on the plains near Craig a few days afterward, when he took them into the fort, and they made a treaty with the commanding officer.

From that time the Apache tribes all over New Mexico and Arizona began to come in and ask for peace, and shortly afterward all the tribes, except that of Cochise, were on their various reservations. It was not until the fall of 1872 that the whites were able to get that old chief to lay down his arms and partake of Uncle Sam's hospitality.

Mr. Hughes is credited with being instrumental in bringing about the meeting of Cochise and General Howard which resulted in the treaty and setting apart of the Chiricahua reservation for them. Captain Jeffords and Mr. Hughes were placed in charge of them as an independent agency. This was done that they should not be hampered with the red tape of Territorial officials in their endeavors to keep these Indians at peace.

Mr. Hughes remained with these Indians until the winter of 1876, when, becoming tired of civilizing Apaches, he left them and went to work at placer mining in the Santa Rita Mountains, now known as Greaterville. While at Greaterville mining the Chiricahua Indians broke out again, and Mr. Hughes was called upon by the Government to assist in bringing them in and removing them to the San Carlos reservation. Although this was one of the most difficult and dangerous undertakings of his life, he made a complete success of the undertaking, although others who had no more to do with it than the Queen of England claimed and got the credit.

Owing to the red tape modus operandi at Washington Mr. Hughes became disgusted, and after the close of the Indian war went to mining in the Santa Ritas. The town of Greaterville is the result of one of his discoveries, also the Omega Copper Camp. He has also, in the meantime, held many offices of trust, having been elected four terms as a member of the Territorial Legislative Council and twice as president of that body.

CHARLES H. KNAPP. In the discharge of his duties as a public servant Mr. Knapp has been faithful, efficient and trustworthy. A man's life-work is the measure of his success, and he is truly the most successful man who, turning his powers into the channel of an honorable purpose, accomplishes the object of his endeavor. Mr. Knapp was born at Honesdale, Penn., September 7, 1845, and removed with his parents to Terre Haute, Ind., in the spring of 1850. He was educated in the schools of the last named city and at Wabash College, Crawfordville, Ind. When the war broke out he enlisted in the Union army, and for nearly two years served his country in Company I, Eleventh Regiment, Indiana Volunteer Infantry. Following the war he resided for some time in Terre Haute, Ind.; Chillicothe, Mo., and McPherson, Kan. In the month of April, 1881, he arrived in Phoenix, Arizona, and in the May following was made deputy clerk of the District Court, which position he filled most ably up to June, 1884. He was then appointed clerk by Judge Ponney, served until January, 1886, and again served as deputy from January, 1886, till April, 1890. In April, 1891, he was again appointed clerk of the District Court by Hon. Henry C. Gooding, Chief Justice, and was the incumbent of that position for some time. He discharged the duties of that position in a most satisfactory manner, and is a popular and capable official. Mr. Knapp is a prominent member of the Grand Army of the Republic, Phoenix Knight Templar Commandery, and is a prominent and influential Republican. To his marriage has been born four interesting children.

JOSEPH W. WILSON. He whose name heads this sketch was until recently engaged in the important business of merchandising, and seemed well fitted for the calling, for he is enter-

prising, honest and industrious, and held in high esteem by those who were his patrons, and by the people generally. However, for some time past he has devoted his attention to ranching and to his various mining interests, and in these he has been successful. He is a native of Charlestown, Mass., where he was born November 11, 1848, a son of William W. and Rebecca C. (Wadsworth) Wilson, who were also natives of the old Bay State, and are now sleeping their last long sleep in a cemetery near Boston. In his natal city, the subject of this sketch was given a practical and useful education, and there his home continued to be until he had reached the age of twenty-two years, about eight years of which time were spent as a clerk in a wholesale clothing house. From Charlestown he removed to Louisville, Ky., and was engaged in clerking in a wholesale clothing house there from 1872 to 1875. He then went to New York City and was a clerk in the well-known establishment of Bernheim, Bauer & Co., until 1879, when he was sent by the New York clothing store to Albuquerque, New Mexico, but the same year gave up this occupation and made his way to Cooney's Mining Camp. After a short stay at this place, he returned to New York in the fall of 1879, not having been away a year, and re-entered the service of his old employers, with whom he remained until the spring of 1882. He had acquired a taste for the West during the short time that he had been here, and accordingly he came to Prescott, in 1882, after leaving the service of the New York house. Here he embarked in the clothing business in an adobe house on the south side of the Plaza, his stock at first being very small and unpretentious, but at the end of about one year he moved his business to the Sherman Hotel block, and here for one year carried on a successful trade. Unfortunately, about one year later he was burned out, after which he moved about for some time before he found a location that suited him, but has conducted business at his present stand since 1887. He owns a ranch of 200 acres in Skull Valley, four miles below the station, which place is well improved and stocked with a fine lot of graded cattle—Holsteins and Jerseys—which are acknowledged to be the best milk stock in the Territory. He is also interested in the Santa Maria group of mines, and some mines called the Black Oak on Slate Creek, both

of which have been developed to some extent and found to be paying. Mr. Wilson is of a social disposition and is a member of the Masonic fraternity and the Knights of Pythias. Although he has never desired nor held public office, he is sufficiently interested in the political affairs of the county to use his influence for his friends.

GENERAL E. SCHWARTZ. The Adjutant-General of the Territory, General E. Schwartz, of Phoenix, Arizona, is a native of New York City, born February 19, 1842. In the month of April, 1861, he enlisted in the Eighth New York Militia. His regiment was discharged shortly after the first battle of Bull Run, and he immediately re-enlisted in the Fourth New York Cavalry, became a lieutenant April 30, 1862, a year later was promoted to captain, and in December of the same year was made major, remaining in this position until mustered out July 25, 1865, being in the Ninth New York Cavalry, the Fourth and Ninth having been consolidated shortly before the close of the war. General Schwartz passed through the first Bull Run, Harrisburg, Cross Keys, Virginia, Cedar Mountain, Second Bull Run, four days at Antietam, Fredericksburg, Chancellorsville, Beverly Ford, Aldee, Middleburg, Upperville and Gettysburg. He was with Phil Sheridan in his famous Virginia campaign, took part in all engagements from Winchester to Petersburg, was wounded at Trevillian Station, was in the battle of the Wilderness and Cedar Creek, and remained with his command until the close of the war. He was made a member of the Grand Army of the Republic at Fort Union, New Mexico, joining the Wingate Post, and became post commander a year later; was a charter member of Carlton Post, at Santa Fe. Moving to Phoenix, Arizona, General Schwartz was made the junior vice department commander of Arizona, and at its last encampment was made commander. He has been recorder of the city of Phoenix for the last six years, having been re-elected unanimously the last time. He was made adjutant-general of Arizona upon the same day the present Governor was appointed. The militia then numbered 300, which has since increased under his able management to double that number. While a Democrat in politics, General Schwartz is a favorite with the Republicans also,

and is the kind of man whom everybody likes to meet—cordial, generous, manly—and has as many hearty, enthusiastic friends as any man in the Territory. He was married in Santa Fe, New Mexico, in 1880, to Miss Angeline Flint, of Chipewewa Falls, Wis., but a native of New Hampshire, her birth occurring at Armstead. At Santa Fe a daughter was born, Anita. The general is a member of the Loyal Legion, California Commandery.

RICKMER N. FREDERICKS. Since the tide of immigration first set toward America perhaps no class of people who have found homes upon her shores has done more to build up her interests or contribute more to her financial importance and national prosperity than the sturdy, honest-hearted and industrious Anglo-Saxons, who have come here to enjoy the freedom of thought and independence of action denied them in the old country. The career of Mr. Fredericks has been a checkered, interesting and romantic one, but through it all he has displayed keen intelligence and energy, pluck and push, and has retained an untarnished reputation. He was born in Heligoland, which then belonged to Great Britain, March 13, 1855, son of C. J. and Therese Fredericks, who were born and spent their lives in that country. The father was a fisherman. Rickmer N. Fredericks was an attendant of the public schools until he had attained the age of fourteen years, and completed a high school course. After graduating he went to Hamburg and there embarked on board a vessel, as a sailor, for the west coast of South America, to which place he made two voyages from Hamburg. He landed at Iquique and was there placed in charge of a gang of men at work on the railroad which was being constructed from one saltpetre mine to another, and was thus employed for about six months. He then returned to his sea-faring life, and was employed by the Pacific Steam Navigation Company as quartermaster for several years, sailing from Panama as far south as Valdivia. He then assisted a Harry Meigs in building the Oroya road, which was to connect the Amazon River with the Pacific Ocean, but the road was not completed and Mr. Fredericks then made a coasting trip to Puget Sound and

back to South America. He then served a short time in the American navy, and was then in the Peruvian navy for six months, at the end of which time he went to San Francisco, Cal., where he embarked in the transfer business with a brother who had been located there for years. He was thus employed until April, 1878, when he came to Prescott, and was engaged in hydraulic mining for a short time, after which he once more engaged in the transfer business, as the head of the Prescott Transfer and Express, of which he was the sole owner for seven years. His brother from San Francisco then joined him and they enlarged their establishment to its present proportions, and were engaged in handling the mails and the Wells-Fargo Express. They sold out their business in July, 1890, and in the spring of 1891 engaged in the brokerage business, much of his attention being devoted to loans, real estate and fire insurance. He represents the Connecticut, the London and Globe and the Phoenix of London insurance companies. In 1882 he was elected City Assessor and Tax Collector, and succeeded himself in this office four terms, when his private business interests compelled him to resign this position. In 1891 he was appointed by the city mayor and council to the position of city assessor and tax collector to succeed a dishonest official, and in this capacity he has since served faithfully and efficiently. His business, interests are all now in Prescott and Yavapia County, and he is the owner of some excellent business houses and residences in the city, which he rents, and a ranch and some cattle. Mr. Fredericks has been public spirited to a degree, and assisted in organizing the Prescott National Bank, of which he is one of the directors, and two of the fire companies of Prescott. He is a man of family, and was married November 21, 1878, to Miss Christina Schoemer, a native of Germany by whom he has three children; John C., Therese and Winnie. In July, 1882, Mr. Fredericks joined the Masonic lodge of Prescott, in which he has since filled all the chairs, being master in 1887 and 1888. In 1895 he was grand master of the Territory, was made high priest in 1889 and grand high priest in 1896. He assisted in the organization of the Grand Commandery of Arizona in 1893, and is its present grand generalissimo. He was made a royal and select Mason

in 1894, and at the present time is deputy illustrious master. He took the Scottish Rite degree in 1895 and the same year was elected a member of the Masonic Veteran's Association of the Pacific Coast. In May, 1894, at Los Angeles, Cal., he became a member of the Mystic Shrine, and with his wife is a member of the Eastern Star Lodge. The life of Mr. Fredericks has been one of ceaseless activity, and has not been without substantial evidences of success. He is a worthy citizen and universally esteemed.

TRACY E. CAREY. The determination and energy which characterize the American citizens as a whole are nowhere to be found so well illustrated as in the organization and improvement of the town of Phoenix, Arizona, nor are their native high principle and fairness of purpose more thoroughly exemplified than in the accommodations planned and carried out for the comfort and happiness of those who populate the flourishing West. The contiguity to one or more of the great railroad systems of the West gives the city superior advantages over many other points, and the numerous improvements which have been made and are now in course of construction obtain for it many additional advantages and conveniences. One of the prominent residents of Phoenix, Tracy E. Carey, is a gentleman of high principle and ability, and one whose aim is always with the best interests of the country. He is the popular conductor on the S. F. P. & P. R. R., and is well and favorably known through this section. He was born in Lima, Ohio, December 17, 1855, son of Isaac and Hannah (Tracy) Carey. The father was a nurseryman and resided near Lima, Ohio, until his death. Our subject made his home in that city until 1871, receiving his education in the schools of the same, and then became messenger boy in the Western Union, with which he remained one year. He learned telegraphy, was in the office there three years, and has since been on all the Western roads. This business he followed for fifteen years, or until 1885, when he was appointed collector on the Santa Fe Railroad. Afterward he was engaged in braking on road. Afterward he was engaged in breaking on the same road. From that he went to Cincinnati, where he assisted in inaugurating the system of collections on the Big Four, and afterward went

to Cripple Creek, Col., at the opening of the camp. From Cripple Creek Mr. Carey went to Chicago, and worked for the St. Charles Transfer Company as operator, and in 1883 entered the employ of the Santa Fe, Prescott & Phoenix Railroad as brakeman. This he only followed for about four months, and after that was made conductor, which position he still holds. On the 8th of January, 1881, Mr. Carey married Miss Josephine Coleman, at Colorado Springs, and they are the parents of one child, a son, Freddie B. Carey, whose birth occurred November 23, 1883. Mr. Carey is sending his son to Notre Dame, where he expects to educate him.

REDMOND TOOHEY. Among the sons of Ireland who left their native land to seek home and fortune on this side of the Atlantic is the subject of this sketch. Mr. Toohey was born in County Tipperone, May 22, 1846, and was the son of John and Mary (Caady) Toohey, both natives of the old country. When but an infant Redmond was left fatherless, and his mother married the second time. He attended the schools of his native country and when twenty-one years old made up his mind to come to this country, where he was sure his chances for making money would be better. After reaching America he remained one month in New York City, and then started for Topeka, Kan., where he learned he could better his financial condition. He went to work for the A. G. S. F. R. R. and was thus engaged until 1872. From there he went to Texas, where he was engaged on the public works, railroad, until 1879, after which he went to Colorado. There he worked on different railroads, but when he reached Ash Fork he sold his outfit, consisting of mules and grading outfit, and purchased a ranch at the head of Williamson Valley. This he stocked with cattle, but growing tired of the work he bought a number of mules and moved back to Ash Fork, where he took the contract to haul in the first two smelters ever taken into Jerome, his being the first teams over the road. Mr. Toohey started a store on Ash Fork at the same time, also a blacksmith shop and an hotel. Later he traded the store, etc., in Ash Fork for more teams and took contract on the Arizona Canal, on which he worked until the contract was fulfilled. After that he

bought a ranch thirteen miles northwest of Phoenix. This consisted of 320 acres, and he has carried it on most successfully since. In connection, however, he is still engaged in contracting to some extent, having built ten miles of Peoria Canal, twenty miles of the North and South Railroad, graded twenty-five miles of the East Riverside Canal, and also worked on the Trie Canal. He was married in Denison, Texas, in 1879, to Miss Eliza Logan, a native of Ireland, and they have six living children: Mamie, Nellie, John, Franklin, Elizabeth and Margaret.

JEREMIAH W. SULLIVAN. Although it has been said that a "Jack of all trades is master of none," yet it has been proved time and again that a man may engage in a variety of occupations and succeed in them all if he has the requisite mental abilities and the determination and energy to push his enterprises to a successful termination. Jeremiah W. Sullivan is not only a prominent stock man of this section, but was also a successful contractor and builder for many years, and was also engaged in various other enterprises. He was born in Canada, Northumberland County, November 28, 1843, and is of Irish origin, his father, Timothy Sullivan, being a native of that country. The elder Sullivan first settled in Ashtabula County, Ohio, but being an expert carpenter and contractor was engaged in bridge building, lumbering and saw-milling in Canada for some time. After reaching mature years our subject came to the United States in the employ of Robertson & Worthington, railroad contractors, who were building the Ashtabula & Jamestown Railroad, and was soon afterward made foreman in clearing the right of way. He spent the summer on the ill-fated Ashtabula Bridge, but in the fall of 1865 went to Oil City and other places in Pennsylvania and spent two seasons in the Susquehanna country, engaged in lumbering. During the winter he was foreman in a lumbering camp, but thinking to better his financial condition he started West. Making his way to Junction City, Kan., he remained there four days, and then with two boys started back, but meeting with some men who joked them about being discouraged, our subject again turned his face toward the setting sun. He found employment in Ft. Leavenworth, and later in St. Louis,

and later contracted with the Government to drive a team to Ft. Union, New Mexico, which place he reached October 13, 1867, remaining there in the employ of the Government until 1868. He then started, with fifteen other men, for Prescott, Ariz. They arrived in that city December 3d, and although they came there to mine they turned their attention to other enterprises. Part of the time Mr. Sullivan was engaged in carpentering and contracting, and one winter he took the contract for 1,500,000 shingles. In the spring of 1871 he started for Washington Territory and got as far as San Francisco when he met a party going to South America, and he decided to make the trip also. He first went to Bolivia, later to the Sandwich Islands, and from there to Portland, Ore. After a short stay in the latter place Mr. Sullivan went to the Puget Sound country where he spent one season engaged in farming, and then in 1872 went to Sitka, Alaska, on the revenue cutter "Lincoln," in the employ of the Government to look after smuggling Indians, timber cutters, etc. That winter he had charge of pile driving on the Oregon Short Line, running from Portland to Sacramento, but which is now called the "Shasta Route." In the spring of 1873 Mr. Sullivan embarked in the cattle business in Wasco County, Oregon, in the John Day country, but during the fall of that year came to Arizona to collect some outstanding debts. Here he remained until 1876, during which time he contracted for the Government. Later he settled in this Territory permanently and engaged quite actively in the cattle business, which he has conducted since. His headquarters are now at Seligman, near the line of the A. & P. R. R., and his large ranch is in Williamson and Chino valleys. He also has a very large horse ranch and is one of the prosperous men of the Territory. He ships his stock principally to California, but considerable is sent to Denver and Kansas City. Mr. Sullivan is a director in the Bank of Arizona, at Prescott. He is a member of Prescott Lodge No. 1, A. F. & A. M., and a member of Chapter No. 3, at Prescott. During 1880, 81, and '82, he was supervisor of Yavapai County. It must not be supposed that during his many trips across the plains that Mr. Sullivan escaped having trouble with the Indians. In 1869 he was employed for three months by a man by the name of Johnson, who had a contract

for cutting shingles. Indians were numerous and dangerous at that time; every man went armed, and while in the woods chopping Mr. Sullivan and his companions generally had their guns handy. One day they were chased to the camp by about twenty-five Indians, who fired at them as they ran, but no one was hit. Hastily collecting about seven men they followed after the Indians, and while examining the tracks made by the Indians, were fired upon by them from a large juniper tree. They returned the fire with interest, and reaching the tree saw where one of the savages had been wounded. The Indians succeeded in making their escape. The next day Mr. Sullivan went to Prescott and found that the same party of Indians had killed General Osborn two days before, and another man by the name of "Tex." The latter was bald-headed but had long whiskers and they scalped his chin. One day Mr. Sullivan started to go to Prescott for mail, on foot, and when within three and a half miles of that place discovered moccasin tracks, and soon after six Indians. These savages commenced firing at him and he returned their fire with his navy revolver, sending eleven shots at them from behind a stump. They came closer and Mr. Sullivan was struck in the neck by an arrow. He broke the arrow off up by the skin and then concluding that it was getting too hot for him, started on a run for camp. He felt a shot pass through his side as he ran and another whistled dangerously close to his head. He reached the camp with no more wounds, but pulled out of his neck about an inch and a half of the arrow. He had just been grazed in the side, but his hat had been shot through. He had many other experiences, but that was the most exciting.

JAMES McCARTHY. Among those who have inherited the thrift and perseverance of their Irish ancestors is the gentleman mentioned above, who was born in Boston, Mass., December 24, 1857, and who is now one of the successful business men of Phoenix, Arizona. His parents, Daniel and Margaret McCarthy, were natives of Ireland. The father was a successful contractor after coming to the States, and resided in Massachusetts until 1858. He then moved with his family to California, and settled in Los Angeles County, where our subject had excellent educa-

tional advantages, graduating from the public schools of Los Angeles. Later he learned the trade of blacksmith in that city, and there remained until 1876, when he made his way southward, landing in at Ft. Yuma, Arizona, in the following year. After working at that place for four months he came to Phoenix and opened a shop where McMill's printing office now stands, conducting it for one year with fair success. From this place he went to Signal, Mohave County, Arizona, and was gone from Phoenix until 1880, when he returned and located on his present property. He bought this land, fifty-foot front, erected a good sized shop, and has been actively engaged in the duties of his trade since. He has the largest shops in the city, is noted for his excellent work, and is a man well liked by all. In the year 1882 he married Miss Mary E. Enright and they have four bright boys: James Leroy, Leslie Joseph, Washington Emmett and Neal Steere. Mr. McCarthy is deeply interested in all that pertains to the welfare of Maricopa County, and gives his hearty support to all enterprises of moment.

THOMAS HUGHES. Nothing is more true than the statement that in this country alone, of all the countries upon the face of the earth, a man's family connections do not assist him to places of honor and trust, but he must win his way by his own exertions or by his own honest merit. This government of the people is no discriminator of persons, but opens its doors wide for the admission of all such as possess the requisite qualifications, and birth is by no means one of these. Thomas Hughes was born with the heritage of a good name; his parents, although natives of Wales, were for many years honored and respected citizens of this great Republic, yet Mr. Hughes owes the success that has crowned him not to his parents, but to his own exertion and to his superior attainments. He was born in Allegheny City, Allegheny County, Penn., and is mainly self-educated. When about eleven years old he went to Kansas, the scene of border warfare at that time, and was a witness of all the trouble between the free-state and pro-slavery men. For about three years he worked at the machinist's trade with Kimball Bros., of Lawrence, Kan., and then as the Civil War broke out he

enlisted as a private in Company D, First Regiment Kansas Volunteers, May 16, 1861. This was Jim Lain's old company and was the first organized in Kansas under the Lincoln call for 75,000 troops. Mr. Hughes served three years and two months with this regiment and was wounded in the right side at Wilson Creek August 10, 1861, but followed the army in its retreat to Rollo and St. Louis, Mo., fearing death if captured. He was in the hospital at Rollo and St. Louis for three months. Mr. Hughes participated in all the campaigns of the Army of the Tennessee, including Donelson, Fort Henry, Shiloh and two battles of Corinth, and campaigned through Central Mississippi in the winter of 1862 and 1863 with Grant and Sherman. During the Siege of Vicksburg he was very severely wounded in the left elbow. He enlisted in Company B, Seventeenth Kansas Volunteers, in July, 1864, and was mustered in as first sergeant. This regiment was in the campaign against General Price in his last raid in Kansas in the summer and fall of 1864. This regiment was enlisted for one hundred days only and our subject was mustered out with his regiment in December, 1864. He assisted in organizing six regiments of soldiers from rebel prisons to fight the Sioux Indians, and on the 1st of March, 1865, was appointed by the President first lieutenant of Company G, Fifth Regiment United States Volunteers, and commanded this company from that time until mustered out November, 1866, at Fort Kearney, Neb. Mr. Hughes was in the war against the Indians all this time and participated in the disastrous Powder River expedition of 1866 under General Connors. In this they lost their outfit, were severely handled by over 10,000 Sioux Indians and suffered untold hardships during the retreat without food or sufficient clothing. This retreat lasted for six weeks in northern blizzards on the Upper Powder River. Again Mr. Hughes was called into service as first lieutenant and regimental quartermaster of the Eighteenth Regiment Kansas Cavalry, this being caused by the breaking out of the Indians in Western Kansas. Some of the hardest fighting of the war was performed by the Eighteenth Kansas during the summer and fall of 1867, under command of General Custer. In the several battles with the Indians in which he participated the most severe was of three days'

duration, when his command of 250 men lost forty-two killed and wounded. The Indians had over 3,000 warriors. Mr. Hughes was brevetted major, lieutenant-colonel and colonel of Kansas Volunteers July 26, 1866, for meritorious services in the War of Rebellion and against the Indians. He was mustered out December 24, 1867, at Fort Harker, Kansas. Mr. Hughes came to Arizona as early as July, 1868, and here was annoyed and bothered by the Indians to such an extent that ranching with him was but a farce for many years. On his ranch, near where Crittenden Station now is, twenty-two men were killed, and in the last encounter, out of four he was the only one to escape. Selling his ranch in 1882 he engaged in business in Tucson with W. E. Stevens, a nephew of Hiram S. Stevens, and for five years the firm title was Stevens & Co. This was from 1882 till 1887. Then from 1887 until 1893 the firm was Hughes, Stevens & Co., but at the present time it is Thomas Hughes' Hardware Company. In the year 1884 Mr. Hughes was elected treasurer of Pima County and in 1889 was made Territorial Auditor, serving as such until the latter part of June, 1893. On the 3d of November, 1874, he was married to Miss Helena Martinez, and nine children blessed this union, seven sons and two daughters, as follows: Annie, Thomas E., William Samuel, Arthur, Ralph, David, John, Louis and Helena. On the 17th of September, 1893, Mrs. Hughes was killed by an adobe wall falling on her. Aside from his mercantile interests Mr. Hughes is engaged in mining and has met with fair success. Socially he is a member of the Grand Army, the Ancient Order United Workmen, Loyal Legion (Kansas Commandery) and Legion of Honor at Tucson, he being commander of the last named order.

J. ROE YOUNG. This gentleman, who is United States Indian Agent for the Pimas, Papagoes and Maricopas, Pima agency at Sacatone, Arizona, began life in the central part of Kentucky, May 8, 1854, and is the son of Hon. John D. Young. The father was in Congress during 1867, '68, '71 and '72, and was railroad commissioner for years afterward. He is now retired. The paternal grandparents of our subject were natives of the Shenandoah Valley, and the grandfather was not only a very wealthy man but a

prominent politician, and held a number of responsible positions, viz.: State Senator and United States Marshal. J. Roe Young was educated in his native State, and for a number of years he was engaged in merchandising. Later he entered the service of the Government in Indian Territory and had charge of four tribes of Indians at the Otoe Agency for two years. Resigning he went to Kansas and was engaged in the real estate business for a year and a half. From there he went to Middleborough, Ky., and was police judge for two years and then received the nomination for the Legislature, but did not make the race. He left Middleborough in 1891 and went to Louisville, where his time and attention were given to the building and loan business until 1893, when he was appointed to his present position. Our subject has increased the number of children in school from 400 to 1,000, has induced the Papagoe Indians—always a wandering tribe—to settle contentedly on the land of the Gila reservation, and by hard work has succeeded in having the government send out engineers to estimate on the cost of the Butte Canal above Florence, to irrigate the Gila River reservation and all of the arable land in the Casa Grande Valley, the estimated cost of which is \$2,500,000. He has also succeeded in having the Salt River reservation, near Tempe, deeded to the Maricopa and Pima Indians. He has supervision over the Indian schools at Phoenix, Tucson and at Sacatone, and has sent pupils to Carlisle, Penn., and Santa Fe, New Mexico, taking twenty pupils to Santa Fe. Mr. Young was married January 22, 1874, to Miss Nannie Banderoy of Kentucky, and they have five children—Thomas Herndon, John D., J. Roe, Jr., Ozzie Dent and Frances Belle. While a resident of Middleborough, Ky., he became a member of the Knights of Pythias, also the Benevolent and Protective Order of Elks, of the same town, and since living here he has become a member of the Ancient Order United Workmen of Florence.

SPENCER W. CLAWSON. Among the many excellent men who at an early day migrated westward with a view to bettering their fortunes was the subject of this brief sketch. He is now the most efficient foreman of the Copper Queen Mines at Bisbee, and his lot is one of action rather than meditation. Mr. Clawson was

born in Schuyler County, New York, May 2, 1848, and he resided there until nineteen years old, attending the common schools. The family moved to Seneca County, New York, and he there attended the East Genesee Conference Seminary and was graduated from that institution. Later he learned the trade of jeweler and worked at it at different places for some time and was with the Ithaca Clock Company for seven years. In 1874 he went to Elgin, was with the Elgin Watch Company for a time, and in 1875 went to California, where he was employed as a master mechanic for two years. In 1880 Mr. Clawson went to Tombstone, Arizona, and became assistant foreman in the Contention mine, a position he filled until July 10, 1884. He then accepted a position as assistant foreman of the mines at Bisbee, Arizona, and that position occupied until the death of Mr. Howell, the former foreman, March 23, 1895. Mr. Clawson was married August 14, 1881, at Tombstone, to Miss Lois Brown, a native of California, and one child, Clarence, was born to them February 15, 1884. This bright little boy passed away March 18, 1890. Socially Mr. Clawson is a member of the Perfect Ashler Lodge of Masons at Bisbee, and he is also a member of the Ancient Order United Workmen at the same place.

WADE H. HULINGS. An active and progressive system in any profession or line of business, when based upon principles of honor, is sure to bring success, and an illustration of prominence gained through these means is seen in the record of Wade H. Hulings, attorney-at-law of Phoenix, Arizona Territory. He was born in Allegheny Valley, Pennsylvania, September 23, 1868, and in the public schools of his native state received his initiatory educational training, completing a high school course. He also received much valuable instruction at home and in order to secure a business training, spent some time in an Oil City, Pennsylvania, bank. He subsequently became interested in a mining venture in New Mexico, but as the outcome was unsatisfactory Mr. Hulings returned to his home and took up the study of law and in April, 1893, was admitted to the bar in Venango County. He at once began practicing his profession there, but in a short time became dissatisfied with his location and decided that the West offered better

opportunities for rising, and accordingly, in November, 1893, he made a location in Phoenix, Arizona Territory. Although his residence in this place has not been of long duration he has already become widely known as a rising young attorney and his practice at the present time is large and is continually increasing. He possesses a bright and receptive mind and his life in the professional arena has been characterized by intelligence, sound judgment and persevering industry. He is the attorney for the Pennsylvania Irrigation Company of Phoenix, which was incorporated in 1894 with Willis J. Hulings as president, Hon. H. F. James as vice-president, C. G. Hussey as treasurer and H. B. Beatty as secretary. The object of this company is to store the flood waters of Cave Creek in a storage reservoir, for the purpose of irrigating 30,000 acres of land in Paradise Valley, which is a protected nook of the great Salt River Valley. The dam for this reservoir is now in process of construction and will be finished in the near future. Wade H. Hulings comes of a distinguished family, the first members of which came to this country from France in 1642 and joined the colony of William Penn, with which they afterwards emigrated west to the Allegheny Valley. They became distinguished in this region and are still well and widely known there. Not the least conspicuous and prominent of these was Marcus Hulings, the father of the subject of this sketch, who was at one time the largest holder of oil interests in that region and one of the most prominent of oil producers. He was at one time a large stockholder in the Standard Oil Company and was also largely interested in mining. He donated a large sum of money for a young ladies' annex to Allegheny College, which is known as Hulings Hall. In April, 1895, Wade H. Hulings was united in marriage with Miss Caroline E., daughter of Dr. Charles D. Belden of Phoenix. In his political views he is a staunch Republican, as have been all the male members of the Hulings family as far back as can be traced.

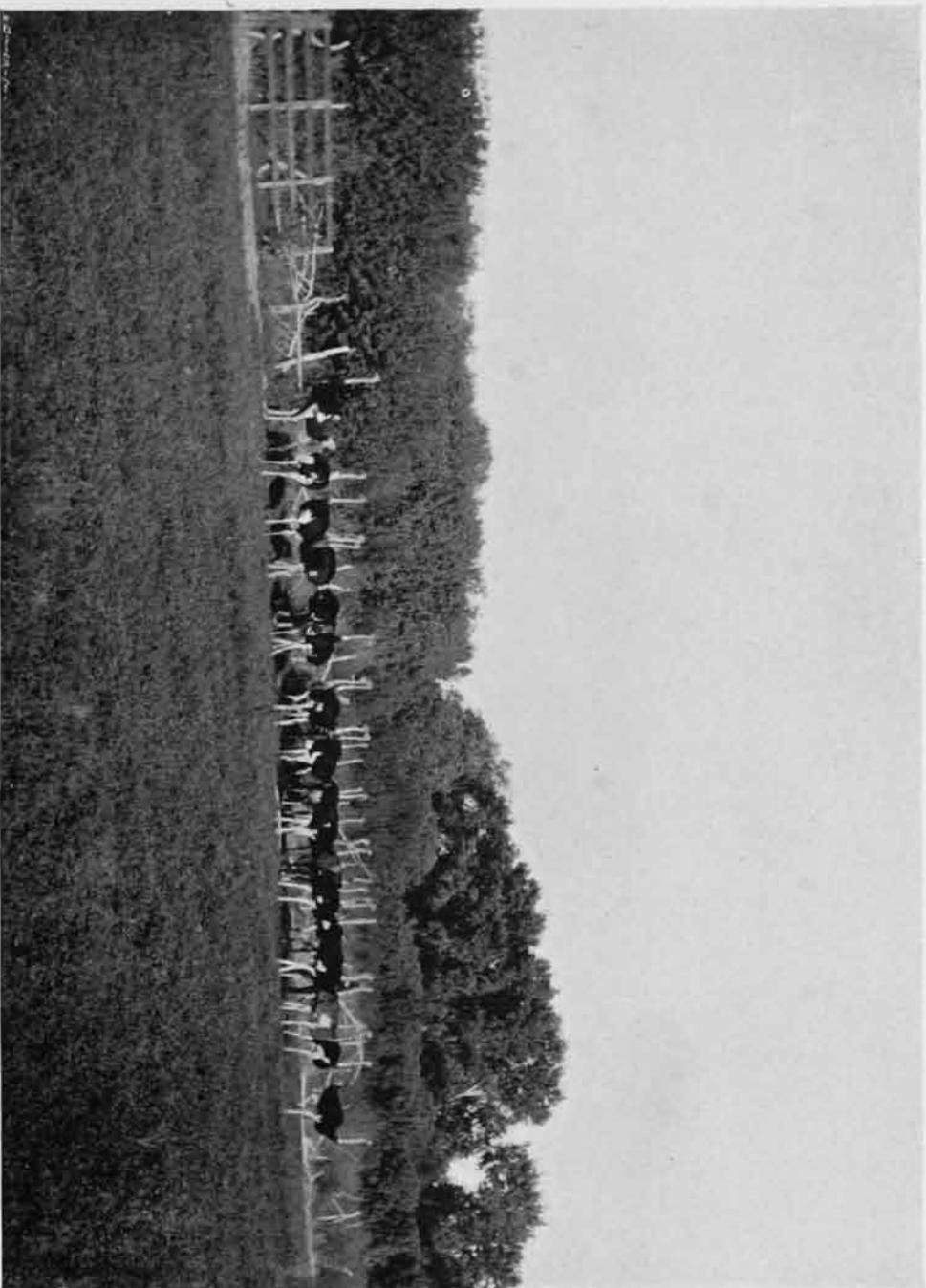
GEN. CLARK CHURCHILL. The West is remarkably prolific in sturdy, active and intelligent men, and the grand expanse of country called Arizona Territory has more than her full quota. It is a noticeable fact that nearly all of

Arizona's old pioneers are respected and wealthy citizens. They have watched over the country during past years in all its stages of prosperity and adversity. They have all seen feasts and famines, hardships and comforts, yet have never allowed their faith in a great future for the Territory to waver. General Clark Churchill is a splendid representative of this class. He is looked upon as being one of the brightest business men in Arizona, and as a lawyer and politician his fame has reached far beyond the Western sky. He has devoted all his time to one object—the advancement of the country of his adoption. He was born June 17, 1836, in Tioga County, Pennsylvania, but his parents, Dr. Charles and Elizabeth (Butler) Churchill, were natives of New York. General Churchill has been "out West" since 1861. He first located in San Francisco, where he was the bright particular star in his profession for many years. The San Francisco bar at that time was one of the ablest body of lawyers ever congregated together in one place in the United States. At the earnest solicitation of some of the most prominent people of California he went to Virginia City, Nevada, to look after heavy interests in the famous Comstock lode. Here he remained three years fighting for his clients with marked ability and effect. He became so popular with the excellent people of Virginia City that he was elected city attorney from 1865 to 1866. In 1877 the General passed through this Territory, and with that keen foresight and great business ability for which he is justly noted, saw the almost unlimited possibilities of the country, and determined to locate here permanently. The people of Prescott first had the honor and fortune of receiving General Churchill in their midst. In 1880 he paid a professional visit to Phoenix and became so impressed with the great resources, and wonderful fertility of the soil of the Salt River Valley, that he determined upon taking up his residence here, and has since made the development of the valley a life study. He invested heavily in lands, and to-day owns the beautiful Churchill Addition to Phoenix, which contains the most valuable building sites in the capital and chief city of Arizona Territory. The General has built for himself a home in this addition, which is at the same time one of the most magnificent and costly residences in the

West. The Churchill Addition has advantages over other building sites of similar character which makes it by far the most eligible location for a home in the city of Phoenix. The addition is situated near the heart of the business center; only a short, pleasant walk to and from the post-office, the churches, schools, capitol of the Territory and public offices. The addition is located on the north side of Phoenix, and the drainage of the city flows in the opposite direction. No overflow of the highest water can ever reach this district. General Churchill's was the brilliant mind that conceived and carried through to successful completion the great Arizona Canal which has turned tractless deserts into gardens of luxurious verdure, and created possibilities for the Territory which before were never dreamed of. It was through his indomitable pluck and perseverance that this colossal enterprise was brought to a successful issue. The General was president and executive officer of the Arizona Canal Company from 1882 until 1887, when the canal was finished. General Churchill has held many responsible positions in the Territory since he determined to make this country his home. He served as adjutant-general of Arizona two terms, and for three terms held the honorable position of attorney-general of Arizona, resigning about a year and a half ago. During his term the famous controversy as to whether the sessions of the Territorial Legislature were limited to sixty consecutive days, or sixty legislative working days arose, and in his official capacity he maintained that the Legislature might lawfully sit sixty actual working days. The result of this decision showed his remarkable forethought. It led to the immediate ousting of all the Democratic Territorial office-holders, from the late administration, and the seating of the appointees of the incoming Republican Governor. In the light of subsequent events it is evident that if no decisive action had been taken at that time, the Republican administration would still be burdened with office-holders of an opposition party. When this great controversy was brought to a successful conclusion the General resigned to take a much-needed rest. In politics General Churchill is a true-blue Republican, and has done as much for his party as any man in the Territory. He is admired, however, as much by the opposition as by his own constituents. His

sterling qualities as a man, and his untiring efforts in behalf of this section, have made him a favorite with every one. He is enterprising to a great degree and comes from a stock that does not stop at small things. He is hale and hearty in appearance, and is the picture of strong and vigorous manhood. His face shows great force of character. General Churchill is respected by those who have had dealings with him as a man of honor and integrity, and by his friends beloved as a man of warm heart, generous impulses and charitable inclinations.

R. H. BURMISTER. Throughout the length and breadth of this country no city can be alluded to whose mercantile facilities are of greater importance in comparison with the population, than that of Prescott, Arizona. This rule applies in every branch of work and is found particularly true in that of general merchandising, a line in which The Bashford-Burmister Company stands foremost. This large and flourishing establishment was started in 1864 by L. Bashford, but on a very small scale, and became a firm in 1867. In 1870 it became L. Bashford & Company and thus continued until 1886 when L. Bashford withdrew and the firm title was changed to The Bashford-Burmister Company which was incorporated April 1, 1892, with R. H. Burmister as president, F. M. Murphy vice-president, and W. C. Bashford secretary and treasurer. These gentlemen are also the directors. In 1876 a one-story brick building was erected, 125x50 feet, and in 1894 and 1895 two more stores were added on the present building, making a fine three-story brick with a basement. This is the largest store in the Territory. It has arches and partitions on the first floor and the firm carries a large and select stock of goods. This company buys principally from the Eastern market, and fifteen courteous and obliging clerks are employed. In connection with the store this firm has five warehouses and a lumber yard. A large stock of lumber is carried and they furnish a great deal of building material for the northern part of the Territory. Robert H. Burmister, president of the company, is a native of Germany, born in Mecklenburg August 17, 1847, and son of Frederick and Bernatine (Zellener) Burmister, both natives of Germany. The father was a tailor by trade and carried on his business in



OSTRICH FARM, NEAR PHOENIX, ON THE LINE OF THE S. F. P. & P. RAILWAY.

Mecklenburg up to 1850. He then crossed the ocean to America with his family and located in Buffalo, New York, where he carried on his business for one year. From there he went to Cleveland, Ohio, remained there eleven years and thence to Liverpool, Ohio. In 1863 he moved to Waupun, Wisconsin, and there engaged in farming until 1865 when he removed to Indianola, Iowa. There he resides at the present time and is retired from the active duties of life, being now eighty-two years old. The mother died in February, 1883. Their family consisted of eight children, as follows: William, who resides in Chicago and is in the employ of Marshall Field & Company; Henry, of Indianola, Iowa; Ernest, died in the hospital at Cleveland, Ohio, during the Civil War; Robert H. (subject); Albert J., in Arizona; Amandas C., manager of the lumber yard in Prescott; Minnie B., and Rosella C. Our subject was reared and educated in the various points to which his parents moved, and in 1864 left home to begin the battle of life for himself. Previous to this, however, when but fifteen years old, he began working out, and in 1862 he entered the store of Clark & Forbes at Oshkosh, Wisconsin, where he clerked on a very small salary at first but soon became the highest salaried clerk in the place. In 1873 went to California and located at San Diego where he clerked for Steiner & Klauber for six months. In the month of May, 1874, he came to Prescott and bought an interest with L. Bashford and has continued in the mercantile business up to the present. He has made a complete success of this enterprise and is a wide-awake, far-seeing business man. When he first embarked in this enterprise the business amounted to about \$35,000 per year, but in 1895 it reached the sum of \$347,200, a vast difference. The capital stock is \$150,000 with \$131,000 paid up. Mr. Burmister is largely interested in mining with W. C. Bashford, and they own the famous "Jersey Lily" gold mine, the "Tiger," "Old Reliable," "Silver Bell," and numerous others. He also owns considerable real estate in Prescott, also stock in the Prescott National Bank which he and his partner helped to organize, and has quite a herd of cattle. Mr. Burmister is president of the Board of Trade, school trustee, and a member of the city council. He is a thorough business man and always ready to

promote any enterprise for the good of Arizona. In the year 1873 he married Miss Maggie F. Bashford and they have three interesting children: Robert D., Howard C. and Helen F. In his political views Mr. Burmister is a staunch Republican.

JOHN WOOD. The career of him whose name heads this sketch smacks strongly of the romantic, and were it not vouched for by reliable parties would read almost like a fairy tale. In his case, particularly, it may be said that "truth is stranger than fiction," and his career in the West has been a most interesting and varied one. He was born in Georgia, July 31, 1844, a son of John and Catherine (Wilson) Wood, natives respectively of North Carolina and Tennessee. The family emigrated from Georgia to Dade County, Missouri, about 1846, and there remained until 1859, when they moved to Southwest Kansas, and finally to the Lone Star State. The subject of this sketch acquired a thorough knowledge of farming, but received limited educational advantages, in fact, mainly what he could obtain by practical experience and observation, a hard, if thorough, school. At the age of fifteen years his adventurous spirit asserted itself and he defied parental authority by running away from home, leaving without a dollar, and on foot. He made his way to Barton County, Missouri, and there fell in with a man by the name of Wash. Farmer, who was making up a train to cross the plains into California, and hired himself out to him at \$10 per month as a roustabout boy for the family, being assistant cook, etc. Their first permanent stop was made at Honey Lake Valley, the journey thither having occupied four months and seven days, but en route, at Gravelly Ford, on the Humboldt River, their stock was stampeded by the Indians, and nothing remained but to give them chase and recapture the stolen animals. In this they were successful, and after hanging two of the Indians they returned to Honey Lake Valley, and here Mr. Wood was left in charge of the stock for that winter (1859.) During that winter he was troubled considerably by the depredations of the Indians, and with others was gradually driven back to the settlement. In the spring of 1860 Mr. Wood, with others, made a new camp about thirty miles away, which was named

Fort Sage by Mr. Wood, and still bears that name. At this time a comrade of Mr. Wood was captured, beaten, set fire to by the Indians and left for dead, but was found by his friends, and after long nursing, finally recovered. They then left this camp, owing to the outbreak of the Piute Indians, who massacred every white they could lay hands on, only six or eight escaping with their lives, and Mr. Wood made his way up the Honey Lake Valley and stopped with his herd of cattle at the mouth of the McCalmly River. He met the owner of the stock at Big Meadows, on the Sierra Nevada Mountains, and with him went on into California and put the cattle on a ranch at Tooley, where Mr. Wood was left to herd them. He remained a few weeks, then went back to the Sierra Nevada Mountains to near Volcano, where he was engaged in driving a logging team for a saw mill until the spring of 1861. In June of that year he went to Washoe, Nevada, during the gold excitement there, and began freighting, continuing a few months. In the winter of 1861-2 he was sick for a long time with the small-pox, and upon his recovery found himself in very bad shape financially. In the fall of 1862 he began hauling wood and later turned his attention to farming and ranching on the Carson, below Fort Churchill, where he remained until the spring of 1865, when he went to Bannock City, Idaho, and spent the summer and fall of that year in mining. He then removed to Virginia City, Montana, and for some time followed mining on Alder Creek, and the following winter hunted buffalo and other wild game on the Yellowstone River. The following spring he went to Elk Creek during the gold excitement there, and the summer of 1866 was spent in mining. Upon his return to Helena, Montana, he prospected, hunted and trapped during that winter and the next year went to Leesburg, Idaho, and engaged in fishing in a lake there, and during that summer made more money than he had done in a long time. However, he did not long remain there, for he got into trouble with the Indians and had to leave or get scalped, and he wisely decided that "discretion was the better part of valor." He returned to Helena and the winter of 1867 was spent in mountaineering. In 1868 he engaged in ditching, and the summer of 1869 he spent in mining thirty miles from Helena. In the fall

of that year he started for Arizona with a wagon accompanied by two other men, but when they reached the Moham River his companions left him and went on into California, and soon after he met two other wagons and came on to Fort Moham. From this place he walked to Prescott, traveling at night and hiding during the day in the brush to keep out of the way of the wily red-skin, and soon after his arrival here secured employment with a man by the name of Dan Hazard, and became wagon boss of his train, in which capacity he continued for two and a half years, freighting from Prescott to California and Colorado. In the spring of 1870 his train moved the United States troops from Fort Whipple to Wingate, New Mexico, and on his journey back from this trip he had an encounter with the Indians at Rattlesnake Tanks. In this encounter two of his mules were killed and one Indian. Later Mr. Wood made one trip with his train for government freight on the Gila River, and the morning after they had made camp at Alfreo, Washington, they overtook a freight train loaded with corn, but found the wagons badly damaged, much of the corn wasted and poured out of the sacks and three dead men on the wagons—the work of Indians. At Florence, while they were unloading and loading, they put their mules out to herd, when it was rumored that they had been stolen by the Indians, but later found that none of their animals were missing, but that the Indians had stolen the teams from another train, killed all the members of the outfit, and had just passed them with their booty. Notwithstanding these menacing demonstrations Mr. Wood and his train reached Prescott safely, and soon after took a train into California, but on this trip encountered a heavy sand storm which lasted four days, and which came near resulting fatally for all the men and stock. The journey was at length accomplished, with a loss of some stock, and they were much fortified and sustained by meeting a supply wagon which furnished them with supplies. On the journey back to Prescott Mr. Wood was taken ill and the train was placed in charge of another man, and he mounted a mule and rode back to California. Later he made a trip east to his old home in Missouri, where he remained one winter, after which he went to his old home in Kansas, but could find no trace of his

family, and to this day has never heard of them. While in Kansas he gave such glowing descriptions of Arizona that an emigration party of twelve families was made up and the train consisted of fifteen wagons and was under the captaincy of Mr. Wood, who found the position a responsible and trying one, but he got the train through without mishap and the company located in the Verde Valley, where they at once proceeded to erect cabins, make ditches and canals, and improve their land, the result being that the settlement prospered. Here Mr. Wood also erected him a cabin and has ever since lived. Since that time he has been engaged in ranching and the stock business, and he it was that practically built a canal about thirteen miles long, which furnishes the valley with an abundance of water. He is the owner of three hundred and twenty acres of land, about two hundred of which are under cultivation, and gives considerable attention to the raising of race horses, and owns what is supposed to be the fastest horse in the Territory. Mr. Wood is one of the pioneers of the valley, and to see him in his quiet home and following his present peaceful pursuits one would hardly realize that he has been an Indian fighter and a miner of the wild and lawless days of the West. In 1894 he was elected a member of the board of supervisors, he and one other man being the only ones elected on the Democratic ticket. He has been a school trustee, also, in the valley, and is a public spirited, useful and law abiding citizen. He was married in 1881 to Miss Frances M. Rutledge, who died in 1887.

HON. J. C. HERNDON. Among the prominent and able lawyers of Prescott, Arizona, noted for his skill in handling cases, is Hon. J. C. Herndon, who possesses far more than the share of ability with which the average man is endowed. He has won his enviable position in the legal profession by the exercise of talent with which nature endowed him, allied to great application, and ranks among the best lawyers of this section. He is a native of Missouri, born in Fayette, March 6, 1849, son of A. J. and Emily F. (Brown) Herndon, both natives of the Old Dominion. The father, also an attorney, was Clerk of County Court of Howard County, Missouri, and was a prominent man in the state. He is still living and

resides in Howard County, where he is one of the oldest settlers. He is now in his seventy-eighth year. Our subject, one of eleven children born to his parents, was reared in Fayette, and there received his primary education. Later he entered Kentucky University and still later the University of Virginia, graduating from the latter institution in 1871. After that he entered the law office of R. T. Prewitt, of Fayette, and was there admitted to the bar. For a few years following this he practiced in Fayette, Missouri, and in 1883 he arrived in Prescott, Arizona, where he decided to locate. Since then he has been a resident of that flourishing city and has built up an extensive practice. The firm is now Herndon & Norris. Mr. Herndon has been District Attorney of Yavapai County, Arizona, two terms, and was also City Attorney for a few years. He was a delegate to the Democratic National Convention in St. Louis, in 1888, and National Committeeman from Arizona Territory, on Democratic Central Committee from 1888 till 1892. Mr. Herndon was nominated unanimously as a delegate to Congress in the fall of 1895, but was defeated with the balance of the ticket. He takes a prominent part in the politics of the Territory and is well known. Socially he is a Mason, being a Knight Templar and a member of the Shrine, and he is also a member of the Ancient Order of United Workmen. On the 29th of December, 1875, he married Miss Florence M. Wilson, a native of Missouri, and they have two children: Charles W. and Florence John. Mr. Herndon is one of the ablest attorneys in the Territory and few men have a wider or more accurate knowledge of the laws of English speaking people. His investigation of cases is patient and thorough, and its results exact. Mr. Herndon was named after his mother's brother, Hon. John B. Clark, of Missouri. After locating in Prescott he was first associated with Judge J. J. Hawkins for nearly eight years, but in the summer of 1893 the firm became Herndon & Norris.

THOMAS G. NORRIS. The bulk of the men who have legitimately achieved success have been men of courage, honesty of purpose, integrity and energy. The United States have given rare opportunities to men with those character-

istics, and Mr. Thomas G. Norris certainly possesses those characteristics in a marked degree. Although still in the dawn of a successful career, that has attended his efforts in a professional way, he has given abundant evidence of the ability which qualifies him for a high place in the legal profession. He is a product of Carroll County, Arkansas, where he was born March 16, 1856, a son of Jonathan and Jane (Cannon) Norris, who originally came from the old North State. They took up their residence in Carroll County, Arkansas, in the year 1830, and there the father turned his attention to agricultural pursuits and made a good living for himself and family up to the time of the opening of the Civil War. Their home was situated in that section where the greatest devastation was laid by both armies and when the great struggle ceased, the family, consisting of the father, mother and Thomas G. Norris, found themselves homeless and penniless, their house destroyed by fire, their stock killed or driven away, and their land laid waste. For some time thereafter they suffered many privations, but with time their condition improved and they are now comfortably situated. The father still resides in Carroll County. He and his wife became the parents of fourteen children, and the subject of this sketch received his initiatory education in the schools of his native county. The straightened condition of the financial affairs of the family caused him to rely upon his own resources at an early age, but he was determined to acquire a good education and he entered the State University of Iowa at Iowa City, where he began the study of law, and was graduated from that department in 1883. Up to the time he was twenty-one years of age Mr. Norris had never had a suit of boughten clothes but wore homespun made by his mother. He paid his own way while going to school, and during the five years that he pursued his studies only \$19 were paid out for board. He was put on rations for months and was allowed only a certain amount for bread, meat, etc., in payment for his services. After graduating in law he entered upon the practice of his profession at Berryville, Arkansas, where he remained for about six months. He then (1884) decided to come to Arizona Territory, and after a six months' residence in St. Johns, Apache County, he removed to Flagstaff

and formed a partnership with Col. J. F. Wilson, which was dissolved after a few months. He next became a member of the firm of Norris & Ellinwood and continued such until the spring of 1893 when he came to the city of Prescott and became associated in the practice of his profession with J. C. Herndon, the firm being known as Herndon & Norris. They constitute one of the best known and ablest law firms in the Territory, and as both are ambitious, with an ambition whose aim is worthy, they will undoubtedly rise to distinction in adjusting the difficulties of those around them. Mr. Norris possesses an intimate knowledge of his profession, has a decided liking for it, and although his labors are arduous they are congenial. While residing in Arkansas he announced his name for assessor of Carroll County, was elected, and ably filled the position for one term. In 1891 he was elected a member of the Constitutional Convention from Coconino County, Arizona Territory, and in the following year was elected councilman-at-large for the Territory of Arizona and was president of the council in 1893. He is a Knight Templar in the Masonic fraternity, is a member of the Mystic Shrine and is one of the active workers of the order. In 1883 he led to the marriage altar Miss Nannie E. Scarborough, of Berryville, Arkansas, but December 6, 1894, was called upon to mourn her untimely death. She bore him five children, four of whom are living: Mabel, Maud, Herndon J., and William J. Mr. Norris is deserving of the greatest credit for the way in which he has surmounted the many difficulties which have strewn his pathway from early boyhood, and he has the unbounded satisfaction of knowing that his present success is not due to any factitious circumstances but to his own determination, push and energy. As a lawyer he possesses brilliant attainments and has already attained considerable distinction in the political affairs of the Territory. He and his partner are the attorneys for a number of mining companies.

C. P. LEITCH. Maricopa County, Arizona, is noted for its able, trustworthy and faithful officials, and none deserves higher praise for the admirable manner in which he has discharged his various duties than C. P. Leitch, who is at present filling the responsible position of Terri-

torial Auditor of Arizona. He is a product of the Buckeye State, born in Trumbull County, Ohio, August 8, 1852; son of Robert and Elizabeth (Porter) Leitch, the father a native of Scotland and the mother of Ireland. The parents came to this country in the spring of 1851, settled in Ohio, and there the father passed the remainder of his days, dying in Trumbull County. The mother still survives and makes her home in that county. Our subject was one of eight children born to this couple. In his native county he grew to manhood and received his education. When about twenty-six years old he came to Arizona and located in Graham County where he engaged in ranching, taking Government contract to supply the posts with beef, hay, wood, etc. This business he followed until coming to Phoenix in 1895. His interests are yet largely in Graham County where he owns some ranch property and cattle. In the fall of 1895 he purchased an interest in the "Arizona Gazette," and now owns the entire plant. He was appointed to his present position in 1894. Mr. Leitch has never been active in politics but has given his entire attention to his business affairs. He has been a resident of Arizona for eighteen years and is well known throughout the Territory. When he first settled in this section the country was wild, the Indians were numerous and hostile, but he never experienced any serious trouble with them.

M. J. NUGENT. The responsible position which this gentleman is filling, that of deputy internal revenue collector of Phoenix, Arizona, is one demanding the utmost good judgment and ability. No more able official could be found than M. J. Nugent, and the citizens of the Territory realize this fact and appreciate the services he has rendered. He first saw the light in Seneca County, New York, January 11, 1853, and is the son of Patrick and Margaret (McDonald) Nugent, natives of Ireland. The parents left the land of their birth and came to America in 1850. They settled in Seneca County, New York, and there the father engaged in merchandising, which has continued to be his chosen calling up to the present. In the town of Seneca Falls our subject grew to mature years and received his education. He there learned the machinists' trade but later went to Bowling

Green, Kentucky, where he followed his trade until 1875. He then made his way to the Pacific coast and stopped at Los Angeles, following his trade there until 1877 when he was sent by the Southern Pacific Railroad Company to Yuma, Arizona, as foreman of the Yuma railroad shops. There he was well supplied with work until 1884 when he was transferred to Tucson, Arizona, as general foreman, and remained there until 1885. Resigning the position he became assistant Territorial superintendent of the Territorial prison at Yuma, remained there one year, or until 1886, when he was elected sheriff of Yuma County. The last named position he filled most ably for three terms in succession and was then elected to the council of the Upper House, holding that appointment for two terms. In the month of January, 1896, he was elected to his present position. Mr. Nugent was deputy collector of customs at Fort Yuma but resigned that office to accept the nomination to the Legislature. He has been in politics for ten years and is well known throughout the Territory as a thoroughly reliable man. He was a delegate to the Democratic National Convention held in Chicago in 1892, and socially is a member of the A. O. U. W.

JOHN S. SNEAD. At the age of seventy-one years John S. Snead, retired capitalist, is one of the best preserved, physically and mentally, of the men who have attained to his age in the county. He is now retired, satisfied with what he has gained and willing to let others, younger and more active, take up the burden. He was born in Fluvanna County, Virginia, August 6, 1825; son of John H. and Nancy (Petet) Snead, natives of the same State. Members of this family were pioneers of the Old Dominion and the father of our subject served in the War of 1812. He was a farmer and died in his native State. In the log school house of his native county John S. Snead received his education and on the farm learned habits of industry and perseverance which have remained with him through life. When twenty-one years old he went to St. Charles County, Missouri, and while there enlisted in Captain McCoslin's Company, in the Mexican War, being mustered in at St. Louis. He was out eighteen months but peace had been declared before they reached Mexico.

Returning to Missouri young Snead engaged in the tobacco business at St. Charles and shipped his produce up the river and hauled it out to country towns in wagons. In 1850 he crossed the plains with two ox teams and eight men and were over six months on the road. They stopped in California at Grass Valley and were engaged in prospecting and placer mining for some time. Subsequently Mr. Snead left his companions and went to Coloma, California, where he was engaged in mining for a short time, but from there he went to Georgetown, that State, and spent the winter. In the spring of 1851 he raised a company and went on a hunt for Gold Lake and was out for five months, but was unsuccessful. Later he went to Sacramento and thence to Gold Hill where he engaged in placer mining and where he was quite successful. There he remained during the winter, but in the spring moved on the river and dammed it in order to work in its bed. A heavy rain spoiled his plans and he gave it up. Subsequently he bought a team and went to hauling goods and provisions to the big mines, following this for about two years. Then, selling his stock to the stage company at Placerville, he began driving stage and followed this at different places, but for the same company, for five years. Following this he went to Salt Lake City and drove the stage for eighteen months when, hearing that the Sweet Water mine was having a boom, he went there and began mining. He soon lost all his money and then returned to Salt Lake where he began driving stage to Helena and was thus employed for six months. From there he went to Idaho, remained there about three years engaged in staging, but being bothered with rheumatism he went to Southern California. Not deriving any benefit from the climate of Southern California he made his way to Arizona, in 1877, and for a short time stopped at Aaronsburg. Afterwards he was in Pinal County for some time and in 1881 located in Phoenix where he was engaged in the liquor business for about four years. In 1884 he returned to his old home in Virginia, bought a farm and cultivated the soil for three years, to his detriment. Disgusted with farming he returned to Phoenix and here he has since made his home. He has a nice residence here and owns the Garden City Restaurant property, which is very valuable. Mr.

Snead's life has been an eventful one, but he has been unusually successful. He takes a great interest in the building up of Phoenix and is well known in municipal affairs. Mr. Snead was married in 1885 to Miss Henrietta Willis, a native of Virginia, and they have two children, John E. and Sallie N.

DR. I. B. HAMBLIN. Dr. I. B. Hamblin is an exceptionally popular and successful physician and is now medical superintendent of Arizona Asylum for the Insane, two and a half miles east of Phoenix. He is scholarly and well informed in every branch of his profession and stands well in the community, both as a citizen and as a physician. The Doctor was born in Hocking County, Ohio, December 24, 1858; son of Emmett and Calistia (Cook) Hamblin, the father a native of New York and the mother of Ohio. Both are now deceased. The father was a business man. Of the eight children born to them only four survive at the present time. Our subject received the rudiments of an education in the common schools, but after removing with his parents to Logan, Ohio, entered the high school where he remained until just before graduating. After that he began reading medicine, entered the Medical College of Ohio, at Cincinnati, and was graduated from the same in 1884. Immediately afterward he began practicing at Dayton, Ohio, and remained there for four years, being connected with the Dayton Insane Asylum. He was afterwards engaged in general practice for a few months and was then appointed one of the staff physicians of Columbus, Ohio, Insane Asylum, where he remained until June, 1893. Afterwards he was appointed to his present position of medical superintendent of Arizona Asylum for the Insane. His appointment for this institution is made for four years. Dr. Hamblin has made a most efficient and capable superintendent and has many friends in the Territory. The asylum is a brick structure three stories high and now has 132 inmates, but it has plenty of room for about 200 patients. It is surrounded by about 160 acres of fine land, which is in alfalfa, fruits, garden, etc., and every acre under cultivation and well watered. On this farm cattle and hogs are raised and everything about the place indicates that an experienced hand is at the helm. Dr.

Hamblin has made many improvements, having added a laundry, an electric light plant, pumping station and sewerage. He is a member of the Maricopa County Medical Society. The Doctor was married in 1884 to Miss Laura Louisa Smith, a native of Ohio.

COLUMBUS H. GRAY, the oldest living white settler in Phoenix, Arizona, is a man who has identified himself with the interests of his section, has won numerous friends, and has built up a reputation for honesty, enterprise and fair dealing that is in every way merited. He is a native of Florida, born in Gadsden County, August 29, 1833, and the son of Thomas and Tempa (Kersey) Gray, both of Scotch-Irish descent. Thomas Gray removed from Florida to Alabama at an early day and was the first business man of Clayton, Alabama, settling there when the Indians were quite hostile. Eight years later he moved to Union County, Arkansas, engaged in planting, and there passed the remainder of his days. He was a prominent man, served in the Legislature a term or two and held other prominent positions. Although a Whig before the war, after that eventful period he became a pronounced Democrat. To his first marriage were born eleven children, of whom our subject is the only survivor. Mr. Gray married the second time and this union resulted in the birth of ten children, three of whom are now living. Columbus H. Gray was but a small boy when he went with his father to Arkansas and he remained there until fifteen years old, assisting on the plantation and receiving but little education. He attended school in a little log cabin with puncheon floor and cracks for windows, but this was for a short time during the winter months, he being obliged to work on the plantation during the summer seasons. In the spring of 1850 he was seized with the gold fever and he, in company with his brother and others, made their way to the Pacific coast, going by way of the Isthmus. Arriving in San Francisco young Gray lost very little time but engaged immediately in mining. This he continued for a few months and then took a trip up in the northern part of the State, going up Salmon and Scott rivers and following placer mining on those rivers for several years. During this time the Indians attacked a camp and killed fourteen men.

Mr. Gray had passed by this camp about an hour before the massacre. He had many miraculous escapes and was always lucky. In 1858 he went to Frazier, British Columbia, engaged in mining there for one year, and in 1859 returned to his old home in Arkansas. In the spring of 1860 he went to Hamburg, Ashley County, Arkansas, and there attended school for ten months, after which he remained with his father until the breaking out of the Civil War. He was among the first to enlist in Captain Jones' Company, First Arkansas Mounted Cavalry, Col. Churchill's regiment, and was in service three years. He held the rank of orderly sergeant and was in the principal engagements of the war. At the battle of Prairie Grove forty-seven of his company went into battle and but seven returned alive. Our subject was one of the survivors but he had a close call. His brother, who was standing at his side, was killed, another soldier at his left was shot down and a man right behind him was also killed. Mr. Gray's clothes were riddled with bullets but he was not even scratched. He was at the battle of Pea Ridge, Corinth, Prairie Grove, Helena, and numerous other minor engagements. After the battle of Corinth he was taken sick and got a furlough home. A little later he joined again and served until the close of the war, surrendering at Marshall, Texas. He was captured at Helena, Arkansas, July 4, 1863, and taken prisoner to Alton, Illinois, where he was retained nine months. He was then transferred to Fort Delaware and while en route he succeeded in making his escape, jumping out of the car window when the car was under full headway, and getting away without injury. He then made his way back to his company. Returning to the old place in Arkansas after the war he was married there, August 24, 1865, to Miss Mary A. Norris, a daughter of J. M. Norris, who is residing near Phoenix, Arizona, and is eighty-seven years old. On the first of February, 1868, Mr. Gray and wife, in company with a train of fifteen wagons, started west with the intention of going to California, but in crossing Salt River Valley, Arizona, it looked so beautiful that they decided to stop and rest for awhile in this Garden of Eden. Mr. Gray and wife lived in a brush shanty for a year and he then built adobe in "L" shape and a corral to keep the Indians from stealing their stock. Mr. Gray

was so well pleased with the valley and climate that he decided to locate permanently here and for twenty-eight years now he has been a resident of this section. He took up a quarter section of land to which he has since added from time to time, and now has one of the finest places in the valley. His residence, one of the finest to be found in the county, is surrounded by beautiful grounds and a beautiful lake adds variety to the scenery. Mr. Gray raises all kinds of fruit on his place and is progressive and stirring. Mrs. Gray was the only white woman in the valley for two years and proved herself a brave little woman and the right kind of a help-mate. When they first settled here there were about a dozen men who had preceded them by a year and came to this section to make a ditch. These men were the only neighbors they had. Mr. Gray is well known throughout the Territory and takes an active interest in politics. He served one term in the Legislature, was a member of the board of supervisors for several years; was in the Democratic convention in 1871, and was instrumental in forming Maricopa County. His brother, W. T. Gray, served four years as sheriff of Maricopa County. Our subject is the owner of Arica group of mines, located in Riverside County, California, about twenty-four miles west of the Colorado River, and he is working three mines which are very productive. On the Red Butte mine he has a shaft seventy-two feet deep with fifteen-foot vein at a fifty-foot level, not having cross-cut the vein at seventy-two feet. The ore averages from top to bottom from fifty to one hundred dollars per ton. It is a true fissure vein. He has another shaft in the Eureka mine which averages from thirty to one hundred and twenty-five dollars per ton. Mr. Gray once owned and worked the Harquahala mine which he sold to Hubbard & Bowers. They in turn sold it to an English syndicate for \$1,250,000. Mr. Gray is a practical miner and takes great interest in developing mines. He has invested a great deal of money in mining property.

CHARLES WILLIAMS. Few men in the county have reached such a high degree of excellence in their calling as has Charles Williams, the prominent and successful fruit grower who resides two miles northwest of Phoenix. He is a native Kentuckian, born in Trimble County

in 1850, but when a mere boy left that state and went to Illinois where he worked by the month in Piatt County. He was thus employed for a few years and then, having accumulated some money, went to Colorado. This was in 1870 or '71 and he settled at Greeley, where he followed farming for some time. From there he went to Old Mexico, partly for his health and partly to find a good location, and later made his way to Southern California. In 1888 he came to Arizona, settled in Phoenix, and as his extensive traveling had reduced his means, began working by the month at whatever he could find to do. In the spring of 1890 he bought twenty acres of land for \$200 and as there were no improvements he immediately began making some and has now one of the nicest little homes in the place. Mr. Williams has four acres in strawberries which will yield an average per year of 4,000 boxes per acre at ten cents per box. He also raises blackberries, asparagus, peaches, pears, grapes, apricots, figs, dates, almonds, garden truck of all kinds, and flowers. Mr. Williams is also in the dairy business to some extent, owning some fine cows and making good butter for the market. He is known as the Strawberry King of Arizona. He was a candidate for county assessor on the Republican ticket and made a good race, although the county was largely Democratic. He is a member of the Masonic fraternity, is active in all good work, and is deeply interested in the development of Arizona. On the 13th of September, 1876, he married Miss Sarah Mimmack, a native of England, and they have four interesting children: Frank, Mary, Lucy and Ida.

W. B. GILLINGHAM. The name above mentioned is one well known in Maricopa County, Arizona, and the possessor is not only an expert mining engineer of this section but a most worthy and influential citizen. He was born May 26, 1850, in Port Huron, Michigan, and is a son of Lewis and Louise (Bartle) Gillingham, both natives of the Empire State. The father was a dealer in lumber in Michigan but moved from that State to Pennsylvania, where he carried on the same business for a number of years. He and wife were Quakers and very quiet and reserved people. Mr. Gillingham died in Philadelphia in 1876 but his wife is still living and resides in New York City. They had but one

child besides our subject, Harriet, who became the wife of Edgar Conger of Columbia, South Carolina. During his youth in Pennsylvania our subject attended Columbia College, New York, graduated in 1886, taking the engineering course, and subsequently made his way toward the Pacific coast. His object in making this trip was to further a project for irrigating the country by means of the Colorado River, but as this proved a failure he secured employment as manager of the Phoenix Mining Company, which was the largest gold mine company in the Territory. He remained with this company for five years after which he resigned. While manager of the same he put up a \$100 stamping mill for them and also made over two miles of development. This mine has been worked for over fifteen years and has been very productive. In 1893 he resigned his position and began working mining property for himself and is the owner of several valuable claims some of which are producing very good ore. Mr. Gillingham is an expert mining engineer and is associated with Hon. T. E. Farrish of Phoenix. Socially he is a member of the A. O. U. W., and politically, a Democrat. He is an active young man, full of push and enterprise and is the owner of considerable real estate in Phoenix. He also owns some ranch property, but turns his attention principally to mining and engineering. On the 19th of July, 1891, he married Mrs. Rose Burchett, a native of California, and they have one child, Ross. Mrs. Gillingham is a member of the Methodist Church, South.

HENRY CROW. In Maricopa County, along the river courses, there lies some of the most arable land in the world—land fitted to raise the various cereals in abundance and particularly adapted to the production of choice fruits. Three miles north of Phoenix there is a fine ranch of 133 acres on which is raised alfalfa, raisin grapes, oranges and various other farm products in profusion and of the finest quality. The fortunate owner of this property is Henry Crow, a native of Canada, born at Chatham in 1830. He was brought to the United States when a small lad, made his home near Cambridge, Illinois, where he attended the common schools, and later was a pupil at the Geneseo high school. He subsequently moved to Marietta, Iowa, and there was engaged in mercantile pursuits for about

eight years. In 1859 he became one of a party of immigrants that crossed the plains in wagons to Colorado, and was engaged in mining at Central City until 1861, when he moved to Denver, embarked in the grocery trade, but later, selling out he went to Georgetown and purchased a half interest in the "Terrible" silver mine near that place. After several years profitably spent in mining Mr. Crow returned to Denver and organized the City National Bank, of which he was president seven years, and at the same time, and ever since, in fact, he has been connected with mining enterprises in Colorado. In 1891 he came to Arizona and bought his present place, on which he has since resided. Mr. Crow is a member of the Masonic fraternity, is a Republican in politics and is one of the Territory's foremost citizens. In 1857 occurred his marriage with Miss Jennie M. Staley, a native of Pittsburg, Pennsylvania, a most estimable lady who has been to him a helpmate in all that the word implies.

JOSEPH MONIHON. Among the pushing, progressive and enterprising men of Phoenix, Arizona, stands the name of Joseph Monihon, who is sanitary commissioner of that city. He was born in St. Lawrence County, New York, May 10, 1854, and, like many of the representative men of this section, his early life was passed on a farm and his education was received in the common schools. He remained with his father on the home place until 1878 and then took the advice of Horace Greeley and turned his face toward the setting sun. He traveled over California, and April 5th of that year found him in Phoenix, Arizona. The first year of his residence in the Territory he worked for wages but later he bought a tract of land and engaged in ranching, which he still follows with much success. He has also speculated to some extent in city real estate and owns a half-interest in the St. Lawrence House and residence property. When Mr. Monihon first came to Phoenix he had but thirteen dollars in money, but by careful and judicious investment soon accumulated property to the amount of thousands. He owns eighty acres two miles west of Phoenix and this is well stocked with horses and cattle and is considered very valuable. For a number of years now he has been quite an extensive stockman

and has been unusually successful. He fattens cattle for the market and makes money at this. After residing in the Territory for a few years Mr. Monihon returned to New York and opened a store at Chase Mills, in St. Lawrence County, and continued in business there for about three years. Finding that he was not making much money he returned to Phoenix and is now one of the substantial men of his section. On the resignation of M. E. Hurley as live stock sanitary commissioner, in 1895, our subject was appointed by Governor Hughes to fill that position. Mr. Monihon is a thorough stock man and his appointment to that position was quickly appreciated by the people. When he first came to Arizona there was not a brick house, nor indeed a frame house, in the town of Phoenix, and the nearest railroad was at Yuma. He has been a resident of this section for seventeen years and is classed among the best citizens of the place. He was married August 17, 1880, to Miss Ella McMorris, a native of California. Mr. Monihon is a Democrat and an ardent supporter of his party.

C. CAMPBELL is a native of Prince Edward's Island, Canada, but has, for the past four years, been a resident of Phoenix, where, by his business ability and courteous deportment, he has gained many warm and lasting friends. Born October 16, 1865, he was liberally educated in the public schools of the island, learned the carpenter's trade, and at the age of twenty-two years went to Denver, Colorado, where he remained until 1892, working at his trade. In 1892 he removed to Phoenix and established himself in the contracting and building business, at which he has met with a more than ordinary degree of success, many of his patrons being among the foremost men of Arizona. Among the more important buildings built by Mr. Campbell is the Fleming Block, the assay office of Dr. Ford, the residences of Messrs. E. J. Bennett, Major Allyn Lewis, etc. Mr. Campbell is the happy possessor of a comfortable home, an established and remunerative business, an attractive wife (formerly Miss Lena Rowen, of Colorado, to whom he was married in 1890), and two sons: George and Frank. He is a member of the Knights of Pythias and of the Ancient Order of United Workmen.

D. W. SPARKS. There are few things more interesting to a student of human nature than to trace the career of a man who, endowed with energy and ambition, has entered boldly into the struggle of life and made for himself an honorable and enviable place in the busy world. Such a man is D. W. Sparks, who, now retired from the active duties of life, resides in Phoenix, Arizona. Mr. Sparks was born in Bedford County, Pennsylvania, July 15, 1833, son of Joseph S. and Elizabeth (Naill) Sparks, the former a native of Pennsylvania and the latter of Maryland. For many years the father followed agricultural pursuits in his native state, but in 1851 moved to Illinois and settled in Bureau County, where he died in 1869. The mother passed away in 1894 at the advanced age of ninety-four years. Their family consisted of nine children, of whom our subject was seventh in order of birth. The latter remained on a farm in his native county until seventeen years old, attended the district school, and then in 1851 moved with his parents to Illinois. They made the journey to Pittsburg in wagons, and from there by water to Rock Island. Young Sparks remained in Bureau County until 1889, assisted his father on the farm until twenty-five years old, and afterwards engaged in merchandising at Wyanet, Illinois. Three years later he sold out and started a hack line and livery business and carried this on very successfully until the breaking out of the war. In the year 1861 he enlisted, first in the three months' call for troops, but later (his company not being accepted), in Company H, Twelfth Illinois Volunteers, serving until the following August, when his time having expired, he was discharged. In July, 1862, he enlisted in Company C, Ninety-third Illinois Volunteer Infantry, and at the organization he was elected adjutant of the regiment, a position he filled until December 31, 1862. Then resigning his position he returned home and immediately engaged in cultivating the soil, following this for three years. After this he was engaged in merchandising for one year, and in 1867 was employed as traveling salesman for Williamson, Gray & Company, wholesale cutlery, of Chicago, and remained with this company for two years. He was also with George B. Standart, wholesale hardware merchant of Chicago, for one year, and for three years traveled

on his own account with a line of specialties. For five years he was traveling for a boot and shoe house of Chicago, Snobel & Company, and afterward for five years was with a barbed wire company of Chicago. Following this he embarked in business at Wyand, Illinois, and remained there until 1889, when he decided to locate in the West. He came to Phoenix, Arizona, in the last named year and having brought a part of his stock, which consisted of millinery, dry goods, notions, boots and shoes, etc., established a store known as the "Racket," which he conducted until February 26, 1896. He then sold out and is now engaged in mining, having stock in several mining claims which have good prospects. Mr. Sparks owns some excellent property in Phoenix and is one of the substantial men of the city. He is a member of the Grand Army of the Republic. On the 28th of June, 1863, Mr. Sparks was married to Miss Evaline Pomeroy, a native of Bureau County, Illinois, and they have three children: Ione; Joseph L., a conductor on the Southern Pacific Railroad, and Ralph W., a student in the State University. Mr. Sparks is a Republican in politics, and he and family hold membership in the Methodist Church.

DR. MARK A. RODGERS. The demand of the age is for gentlemen of culture, refinement and scholastic finish, who shall add to literary education a thorough course of professional education in some established institution of recognized authority. The aim of the modern physician is high and it is no longer possible for a person to pick up a smattering of medicine here and there, nail up his shingle, and take the lives of his patients in his hands. Dr. Mark A. Rodgers, of Tucson, Arizona, although young in years, is thoroughly equipped for the successful practice of this most noble of callings, has the confidence and esteem of his brethren, and is building up a desirable practice as a result of his superior attainments. He was born in the East, in the city of Pittsburg, Pennsylvania, February 5, 1866, and in that place secured a good high school education. A desire for a professional life and a love for the study of medicine caused him to select that as his chosen calling, and when twenty years old he entered the medical department of the University of Pennsylvania, Philadelphia, from

which institution he was graduated in 1890. Soon after he began practicing in his native city, and for thirteen months was resident physician of Allegheny General Hospital. Still later he became Chief Chemical Assistant and Assistant Gynecologist to Dr. R. Stomburg Sutton, Gynecologist of the Hospital of Pittsburg, and that position he filled for two years. Here he became thoroughly familiar with Adominoscopy and Gynecological surgery, and soon had a very large practice in this line for himself. Doctor Rodgers has written a great many papers on this subject and reported some very difficult and successful operations. He was a member of the Allegheny County Medical Society, and Secretary of the Pittsburg Obstetrical Society, also Fellow of the Pittsburg Academy of Medicine. In the year 1895, in the month of June, Doctor Rodgers came to Tucson, Arizona, seeking a milder climate for his health, and satisfied that he had found what was wanted, decided to make his permanent home here. He has built up a fine practice and stands at the head of his profession in Arizona.

ROYAL A. JOHNSON. To successfully fill the office of County Treasurer it is absolutely necessary that a man should possess certain requirements, the most important of which are honesty, accuracy and reliability, and these are found in ample measure in Royal A. Johnson, who is the efficient Treasurer of Pima County, Arizona, and a resident of Tucson. He is a product of Whiteside County, Illinois, born in the year 1854, and was a resident of that county until 1860, when he accompanied his parents to Colorado. Three years later he moved with them to New York City, and made his home there until 1871, when he went to Europe and spent two years in England and France. In the year 1873 he returned to the United States, and in the latter part of that year he went to Venezuela in connection with the construction of the Caracas & La Guaria Railroad, and there remained seven months. After returning to the Empire State he entered his father's law office with the intention of practicing that profession in New York, associated with his father, but during the great excitement attending the Hayes-Tilden election, he became imbued with a desire to mingle in politics, and in the latter part of 1877 he se-

cured the appointment as clerk of the United States Senate Committee on civil service, which played so prominent a part in Hayes' administration. When the control of the Senate passed into Democratic hands Mr. Johnson resigned his position and entered the Columbian Law University at Washington, D. C., graduating in 1881 with the degree of LL. D. The year previous to this the Republicans again secured control of the United States Senate and Mr. Johnson was appointed clerk of the Committee on Pensions, one of the most important committees in the Senate. While holding this position Mr. Johnson was offered the law clerkship of the Interior Department, but declined the same to come to Arizona, believing that this Territory presented a great field for a young man. Soon after locating in Tucson he was offered and accepted the chief clerkship of the Surveyor-General's office, under General Robbins, intending ultimately to resign and practice law. After the death of General Robbins, President Arthur appointed Mr. Johnson Surveyor-General, which position he held until the Cleveland administration, after which he retired from office and in connection with ex-Governor Wolfley, purchased the Arctic Ice Company Works at Tucson. In the year 1888 he was elected Chancellor of the University at Arizona, but after his second appointment as United States Surveyor-General in 1889, the Attorney-General of the United States rendered a decision to the effect that he could not hold both offices, and he resigned the Chancellorship. After the election of President Harrison, General Johnson was once more appointed Surveyor-General for Arizona. The principal work of importance in the office of Surveyor-General of Arizona has always been in the private Land Grant Department, and at this work General Johnson has particularly distinguished himself. Not long after his first term an effort was made to float the Presidio Grant over the City of Tucson, which caused consternation to property holders. By energetic and intelligent work the Surveyor-General was able to unravel the mysteries and uncertainties surrounding this case, and caused the claimant to abandon his original intentions. In many cases General Johnson went into the field in person with the claimants and, by practical demonstration, showed them the futility of their absurd

claims to enlarge boundaries, but his principal work has been the showing up of the famous Peralta Grant fraud, which was forged for the purpose of securing five million acres of our fairest lands, conservatively estimated to be worth at least \$100,000,000. Several years were spent by him in this work, and evidence was secured from Spain, Mexico and elsewhere, showing forgery and fabrication of papers, with great cunning, and General Johnson's report to Congress is regarded as the ablest private land grant report ever made on Mexican Claims, and completely wiped out the fraud that hung as a heavy cloud over the titles of the four counties, Maricopa, Pinal, Gila and Graham. He held the position of Surveyor-General until March 4, 1893, the day President Cleveland took his seat, and afterwards gave his time and attention to his ice manufactory and to stock raising. In the fall of 1894 he was elected Treasurer of Pima County and this office he is now filling. Mr. Johnson's ice factory has a capacity of manufacturing ten tons per day. He is also engaged in mining and is interested in a number of mines. A representative man of Arizona, Mr. Johnson has been successful in all his enterprises. He was one of the organizers of the Phoenix Republican, and a stockholder, and he is also a stockholder in the "Daily Tucson Citizen." On the 14th of February, 1877, he married Miss Frances Morrison, of Brooklyn, New York.

HON. J. S. WOOD. Cordial in manner, apt in expression and full of the knowledge gathered in many years of intelligent observation, one seldom meets a more interesting man than Hon. J. S. Wood, who is now nearly sixty-eight years old. He was born in Virginia, that grand old mother of states and statesmen, January 1, 1829, in Albemarle County, and to the union of Milton and Jeanette (Field) Wood, both natives of the same state. For many years the father was a merchant of Charlotte, Virginia, and was a soldier in the War of 1812, holding the commission of lieutenant. In the year 1842 he removed to Missouri and located in Saline County, where he took up a large tract of land and engaged in agricultural pursuits. There he remained until his death, in 1860. The mother of our subject died in 1893. Milton Wood was an influential and prominent

citizen and held many responsible positions. He was active in all military gatherings, was a major in the State Militia of Missouri and was inspector of troops during the Mormon trouble. He was well known throughout the State of Missouri during the early days. To Mr. and Mrs. Wood were born ten children, seven sons and three daughters, eight of whom survive at the present time. Of these our subject is the second in order of birth. He reached mature years in his native state, attended the public schools, and later, after coming with his parents to Missouri, engaged in merchandising in the town of Marshall, where he was in business for one year. In 1849 he crossed the plains to California, and after this long and hazardous journey on pack mules, engaged in mining at Woods Creek, which received its name from him, and which is well known throughout the country. One year later he recrossed the plains to Missouri, bought many cattle and drove them across the plains to California. He did not escape entirely free from trouble with the Indians, but had a number of skirmishes, had one man killed and a number of horses shot. Mr. Wood dealt in stock after reaching California, with headquarters at Sacramento, and there remained until 1857, when his family joined him, making the journey to California by way of the isthmus. He afterwards made a location in California, where he had a stock ranch, and about the year 1860 was elected sheriff of his County, in California, serving four years. Following this he conducted a large wheat ranch of a thousand acres for several years, and in 1874 came to Arizona, locating in Tucson, where he has since made his home. A few months after his arrival here he was appointed Probate Judge by Governor Safford, and at the same time was engaged in merchandising, which he continued for two years. He afterwards served two terms as County Treasurer of Pima County, and with the exception of four years since 1874, has served as Probate Judge, thus making an official career of twenty-one years here and four as sheriff in California, twenty-five in all. Judge Wood is still hale and hearty, and has ever been noted for native abilities and force of character. He is well known throughout the Territory. Politically he is a Democrat and was a delegate to a number of conventions while living on the coast.

The Judge was first married to Miss Virginia Spedden, of Baltimore, Maryland, and to them were given three children, two now living: Estella and Ella. His second union was with Miss Sallie A. Marshall, and they have six children: John M., in business in San Diego, California; Lena; Robert L.; Sallie; Herbert and Leon. Mrs. Wood is a devout member of the Presbyterian Church and a most estimable woman. While a resident of California Judge Wood was engaged in teaming, freighting from Sacramento to Virginia City, and keeping from five to sixteen mule teams on the road. In this he met with unusual success. He can relate many interesting incidents connected with his numerous trips across the plains and while freighting, and it is quite a pleasure to listen to him.

HON. JOSEPH D. BETHUNE. The expensive and necessary duty of enacting law calculated to protect mankind from the doers of evil has always been a serious object of legislation. The office of judge is one of honor and dignity, and it should, without question, be filled by a man who possesses a thorough knowledge of the law, a keen, analytical mind, and one who can, on short notice, correctly judge of men and motives. These requirements are possessed by Judge Bethune, who, in his efforts to preserve law and order, has shown much wisdom, good judgment, and has balanced the scales of justice with impartial hand. He is a native of Georgia, born in Columbus, July 3, 1842, and the son of James N. and Frances (Gundy) Bethune, natives of that State. The father was a soldier in the Seminole War, served as captain, and was general of the militia of Georgia at an early day and was always known as Gen. Bethune. A lawyer by profession he held many offices, and being a man of much more than the average ability, a graduate of the University of Georgia, and a contemporary of Calhoun, Crawford and others, was well known all over the country. For many years he was editor of the "Columbus Times," and he founded the "Columbus Inquirer," which is still published there. One of the most prominent and popular men of the State, his career was a brilliant one from start to finish. Before he had reached his twenty-first year he was made solicitor general of his district in Georgia. His

death occurred in Washington in December, 1895. His father, John Bethune, was surveyor general of Georgia for many years. Joseph D. Bethune passed his boyhood and youth in his native county and by the time the Civil War broke out had received a good literary education in the public schools. He dropped his books, however, and in April, 1861, enlisted in Company G, Second Georgia Regiment, and served through the greater part of the war. He participated in all the principal engagements in the South and was twice wounded, once at the battle of Chickamauga and again at Malvern Hill. He was obliged to go to the hospital and has never fully recovered from the one received at Chickamauga. In 1864 he was in command of a company of artillery with the rank of first lieutenant and served in that capacity until captured, or until the close of the war. He surrendered at Macon, Georgia, and afterward went north and settled at Warrenton, Virginia, where, in connection with farming, he practiced law until 1876. From there he moved to Los Angeles, California, practiced his profession, and was registrar of United States Land Office for two years and a half. He then resigned and in March, 1893, removed to Tucson, Arizona, on account of his health, and practiced law here until 1894 when he was appointed judge of the First District Court of Arizona, a position he has held up to the present time. As a lawyer and judge he has but few equals in the Territory, and as a citizen and neighbor is highly esteemed. Judge Bethune was married in 1869 to Miss Mary Agnes Clark, a native of Virginia and a daughter of a Baltimore merchant. Six children have been given them: Frank, James N., Isabelle, Joseph D., Fannie, and Mary Agnes. Mrs. Bethune is a member of the Presbyterian Church.

HON. M. G. SAMANIEGO. It is a pleasure to review the career of a man whose efforts have been crowned with distinction, and whose life has been honorable and praiseworthy. The push, energy and enterprise necessary for a successful career are plainly discernible in the life of this gentleman, and is but another evidence of what can be accomplished by a man possessed of these attributes. He is now mail contractor and a successful cattle raiser of Tucson, of which city he has been a resident for many years. Mr.

Samaniego is a native of the State of Sonora, born July 26, 1844, and the son of Bactello and Sevelle Samaniego, both natives of Sonora. The father was a merchant and followed this occupation most successfully until his death. The mother is still living, and although eighty-five years old is fairly well preserved for that advanced age. Of the four children born to this estimable couple two survive at the present time. Mrs. James A. Lucas of Silver City, New Mexico, is the daughter. M. G. Samaniego was educated in St. Louis University, Missouri, and was graduated from that institution in 1862. When the war broke out he was employed as interpreter for the Confederates of the Texas Rangers for several months and afterward went to New Mexico, where his mother was living, and clerked in a store on the Rio Grande. As early as the year 1869 he removed to Tucson, Arizona—making his journey in wagons—and has made his home here for the most part since. While a resident of New Mexico he was engaged in freighting, and in 1868 he lost a fine train of five wagons and forty-eight mules, all being captured and taken by the Indians. For two days he and his men fought the Indians, but as their ammunition gave out they were compelled to give up. They made their way by night to the nearest town, thirty miles distant, and thus were not captured. The same year Mr. Samaniego lost another train and stock, all stolen by the Indians, and this was a severe blow to him. However, he continued freighting and in connection conducted a store in Chihuahua. After coming to Tucson he resumed freighting and government contracting, met with excellent success and prospered right along until 1881, when he lost another train at Cedar Springs. This was in charge of his brother, Bartolo T. Samaniego, who, with all his men except one, was killed by the Indians. At that time our subject was carrying supplies to the forts and he continued in this business until 1882, when he sold out his contract and engaged in cattle raising. This he has followed ever since. He owns two fine cattle ranches and is interested in another. He also owns several thousand head of cattle and a great many horses and employs three or four men all the time. Mr. Samaniego runs the stage line from Tucson to Ora Blanco, with a connection to Nogales, and he also has the mail contract to Oro Blanco and Monmouth and

from Arivaca to Lassa. Aside from this he owns considerable city property and is wealthy and influential. Enterprising and progressive, he has made a success of life and is one of the prominent men in Tucson. He owns the land that first supplied Tucson with water and is interested in nearly every water project in the country, being a liberal contributor to all public enterprises. Mr. Samaniego is one of the fortunate men who obtained redress from the government for depredations done by the Indians, receiving \$11,000 for the last train he lost. He represented Pima County several terms in the Territorial Legislature, was the first assessor elected in that county and has served two or three terms as a member of the Board of Supervisors. He was one of the first members of the Board of Regents of the university, holding the office of treasurer of same, and was president of the Arizona Pioneer Society for two terms. In 1885 the Indians made a raid within fifteen miles of Tucson and captured a boy from a ranch. Mr. Samaniego gathered together thirteen men, all Mexicans except the present sheriff, R. N. Leatherwood, and started in pursuit. After a ride of about four and a half hours with a running fight they recovered the boy and took him to Martiez ranch. There they reorganized, and with a force of about nineteen men started again in pursuit of the Indians. At last they overtook the same Indians just as they were making a raid on the ranch of an Italian, and thus saved the whole family. They also captured twenty head of stock from the Indians. This was the last raid made by them. Mr. Samaniego has had many thrilling experiences and can relate many thrilling adventures. He has been twice wounded by the Indians, but generally returned these wounds with interest. The day after his brother was killed, October 2, 1891, our subject boarded a train for Wilcox to take charge of his brother's body and while passing Dragoon Summit raised the window and fired at some Indians, who happened to be Indian soldiers, but this Mr. Samaniego did not know. He was arrested on arriving at Wilcox for shooting at them, but through the influence of a friend was released in about fifteen minutes. Soon afterward he saw the Indians crossing the line with his brother's clothes, his wagons, stock to the number of about 400 head, etc., which

shows what good Indian soldiers were at that time. Our subject was married in 1868 to Miss Dolorres Aguirre, a native of Chihuahua. He is a member of the Pioneers and Spanish-American Society.

THOMAS L. SCHULTZ. Place the native German where you will and he will make a living for himself and those depending on him, for in him are ingrained those qualities which go to make the successful man, chief among which may be mentioned, energy, perseverance and undoubted honesty. Although he was born in Bavaria, Germany, June 22, 1843, and there made his home until fifteen years old, Mr. Schultz is in every essential a loyal American citizen, and has identified himself with the interests of his adopted country as far as it has been possible for him to do so. His parents, Ludwick and Helen C. (Paternant) Schultz, were natives of Germany and the father was professor in the military academy and an officer in the Bavarian army. His death occurred in 1850 and the mother's in 1851. Their three children were named as follows: Carl H. of San Jose, Cal., is professor of the university there, and Caroline H., who resides in Germany. Theodore L. Schultz, the youngest of the family, like the great majority of German youths, was given the advantages of the common schools of Germany, and as he was apt and ready and willing to apply himself, he acquired a good practical education, amply sufficient to fit him for the ordinary duties of life. When but fifteen years old he determined to seek his fortune in the United States and a few weeks later landed among strangers in New York City. In the fall of 1860 he went from there to Nashville, Tenn., and there attended school for a few months, after which he enlisted in the Confederate army, Second Tennessee Infantry, and later was in John H. Morgan's command. He served until the close of hostilities and in 1864 received his commission as captain of secret service in Regular Army. He was captured at Nashville in 1862, again in Ohio when with Morgan, and still again in Cincinnati, and when the war closed he was still in prison. In May, 1865, he was released and returned to Nashville, where he remained until January, 1866, and then left with a company of ex-Confederate soldiers to join Maximilian in Mexico. He was captured at New Orleans Feb-

ruary 10, 1866, and put on parole not to leave the United States. After this he went to Lake Charles, La., and taught school until 1867, when he made his way to Chicago, where he clerked for James Geary, retail jeweler at the corner of Madison and Dearborn streets, for a number of months. In November of the same year he returned to Nashville and bought a stock of goods, opened a store at Eagleville, thirty-five miles from Nashville, and was in business there until 1869. From there he removed to Portland, Ala., and sold goods until 1874, when in February of that year he went to California, and was there engaged in sheep business in Los Angeles County. Not satisfied in the Gold State he returned to Alabama in 1878, but left for Louisiana the following year and was engaged in merchandising in that State until 1881. Soon after he made his way to the Pacific coast again and in 1882 came to Tucson, Arizona, where he engaged in mining. In 1887 he moved to Salt River Valley, where he has since made his home. Mr. Schultz has been engaged in the real estate and brokerage business ever since and has done a great deal for the growth and development of the valley. He was married in California in 1874 to Miss Ellen M. McMahan, who is a most worthy member of the Christian church. Mr. Schultz is a member of the I. O. O. F. He owns considerable property in Tempe and the Valley and makes a specialty of closing big deals in land. He also deals quite extensively in cattle.

A. V. QUINN. In the capacity of a rancher A. V. Quinn has met with a good degree of success, and this success is in a great measure owing to his persistent efforts and the exercise of sound judgment for which he has always been noted. He owes his nativity to Hardin County, Kentucky, born in 1832, but when thirteen years old removed with his father to Schuyler County, Illinois, where he finished his growth. At an early age he became perfectly familiar with the duties of farm life, and was fortunate in receiving a good public school education. In 1850, when but eighteen years old, he crossed the plains with a train and stopped in Placer County, California, where he followed mining for several years. Afterward he was engaged on the Central Railroad for some time and then went to Wyoming in the interests of the railroad company, looking

after their coal mines. Following this he branched out as a merchant at Evanston, Wyoming, and is still engaged in business at that point. Mr. Quinn is also extensively engaged in cattle ranching under the firm name of Beckwith, Quinn & Corporate, of which Mr. Quinn is vice-president. They own about 14,000 acres and about 7,000 head of cattle. While a resident of Wyoming Mr. Quinn was a member of the Territorial Council and served two terms as County Commissioner. In November of the year 1891 he came to Arizona and purchased his present ranch of 160 acres, nearly all in alfalfa, and has a fine place. He raises some fruit and is a progressive and enterprising citizen and the owner of some thoroughbred Kentucky horses, of which he has reason to be proud. His happy domestic life began in 1870, when he married Miss Mattie Berry, a native of Illinois. They have four children, Frank, Ralph, Mabel and Arthur. In politics Mr. Quinn is a free trade man. For fifteen years he was connected with the coal department of the Union Pacific Railroad.

S. R. H. ROBINSON. This gentleman, who is Superintendent of Construction of Rio Verde Canal Company, is a native of Toronto, Canada, born November 22, 1859. He was educated in the public schools of his native city and early in life learned contracting, which has been his chosen calling since he first began for himself by contracting on the Canadian Pacific Railroad when this road was building west from Winnipeg, and was thus occupied from the spring of 1882 to 1887 on the main line and its branches. His next contract was on the Great Northern Railroad from Devil's Lake to Seattle, Washington, and he was thus occupied from 1887 till 1892. For two years he was on the "Soo" line as a sub-contractor, building in North Dakota, and April 1, 1895, he came to Phoenix, Arizona, to take charge of the construction of the Rio Verde Canal Company, which is now under headway. This company employs from five to six hundred men and the work is rapidly progressing. Mr. Robinson is an expert in his line, has had a long experience and is reliable and capable. He is a member of the Masonic Fraternity. In March, 1884, he married Miss Minnie McFee of Prince Edward Island and this union was blessed by the birth of four children, three now

surviving: Thomas Argue, Leone and Charles Walter. Mr. Robinson began contracting with Mr. Langdon & Company of Minneapolis and after one year with them began sub-contracting, and has taken sub-contracts from them ever since until he began the construction of Rio Verde Canal. He is a man in whom all have the utmost confidence and he is well liked by all acquainted with him.

I. E. SOLOMON. This prominent merchant and farmer of Solomonsville, Arizona, was born in Germany in 1844, and in that country received his education and was taught the mercantile business. When sixteen years old, in company with his eldest sister, Anna, young Solomon sailed for America, and landed at New York City. From there he went to Pennsylvania and located on the Susquehanna River in Bradford County. He engaged as a clerk with an uncle and remained in his employ for three years, when he embarked for himself in the livery and exchange stable business, following staging, etc., in Towanda, Pa., until 1876. From there he went to New Mexico intending to make his future home in that section, but becoming dissatisfied made his way to Arizona in the early summer of 1876, and settled on the place where he now resides, when there were about half a dozen white families in the settlement. He located forty acres of what is now the town site of Solomonsville, and opened a store, which was run in a rather crude way for a few years. He kept adding to his small stock until he now has a fine large store and is doing a flourishing business. About the year 1878 the town was named Solomonsville in honor of our subject, who had the credit of building up the town and forming the settlement. In 1880 the postoffice was established at Solomonsville and Mr. Solomon was the first postmaster, holding the position for sixteen years, through all the administrations except Cleveland's last term. He was appointed county treasurer of Graham County by Governor Fremont, held the position one term, and so well were the people satisfied with his services while an incumbent of that position that he was re-elected, serving in all four years. He has never sought office but has declined some very flattering propositions. Mr. Solomon has had some interesting experiences with the Indians, living near the

Apache reservation, and was always in danger. He had a large flock of sheep and hired men, women and children to herd them. Twelve men, one woman and a child were murdered by the Indians while watching the sheep. One of the men was tied to a tree and stoned to death. The remainder were shot, and about 500 head of sheep were killed. About two years after this Mr. Solomon started for a trip to New Mexico, accompanied by his brother Adolph, who was ill. There were no doctors in Arizona at that time. They started with two teams and two men to Las Cruz, Mexico, but when about thirty miles from El Paso on Upper Gila, Adolph was taken worse and it was feared that he could not make the trip. He and Mr. Solomon concluded to take the stage from Silver City. Both teams went on, however, and were attacked at Cook's Canyon, near Fort Collins, New Mexico, by the Indians. One horse was killed, the balance taken and the men and wagons burned. The soldiers from Fort Bayard found two photographs of Mr. Solomon's daughters and knew that the teams must belong to him. About three years after this Mr. Solomon and wife and children started with three teams to Las Cruz, New Mexico. When about sixteen miles from home they camped for the night and one of the children was taken sick. Fearing that the child might get worse Mr. Solomon sent his wife and family back home, but he continued the trip two days later. When he arrived at Fort Cummins, New Mexico, he learned that the stage had been attacked the day before and five men murdered, one of whom was a young man, Major Madden's son, who had just returned from school. Thus by being delayed one day the lives of the whole party were saved. Mr. Solomon has had many other experiences with Indians and with road agents, being held up by the agents in the early days, but he has always been lucky. He has been industrious and progressive and is yet the owner of about 1,300 acres of fine land near Solomonsville. He still deals in sheep and cattle. At the present time he is interested in three canals, Montezuma, San Jose and Darby, and is president of all. He owns considerable valuable town property. In the year 1872 he returned to Germany and there married Miss Anna Frenenthal. They have six children: Charles, Eva, Rosa, Harry, Lillie and Blanch. Harry is a student in a military school

at San Rafael Academy, Cal. In his political views Mr. Solomon is a Republican. About eight miles from his place they are experimenting for coal, with fair prospects.

W. H. SMITH, well known among the business men of Arizona's capital, was born January 28, 1861, at Reidsville, North Carolina, where he was reared to manhood. After attending the public schools he entered the university of his native State with the expectation of fitting himself for the teacher's profession; but failing eyesight compelled him to relinquish his studies, as well as his wishes, before completing the prescribed course. Embarking in the undertaking and furniture business in Reidsville, he thus continued, enlarging the scope of his labor and learning the art of embalming, until 1890, when, on a trip through the West to find relief from throat troubles, he came to Phoenix. The benefit he derived from the equable climate of Arizona, and particularly in and around Phoenix, proved so beneficial to his health that he determined to make it his future home, and accordingly made a permanent location at the capital. He here embarked in the undertaking business and later added the manufacture of monuments to his work, and from a small beginning has built up one of the prosperous business enterprises of the city. In 1892 he went to New York City, and graduated, on June 11th, from the College of Embalming, thus further equipping himself in his business vocation. Mr. Smith is a member of the Ancient Order of United Workmen of the World, and he and wife belong to the Methodist Episcopal Church. December 1st, 1886, he was united in marriage with Julia A. Smith, a native of Greensboro, North Carolina, and to their union have been born three children, named May, Wesley and Mignon. Mr. Smith is justly recognized as one of Phoenix's enterprising and foremost citizens.

GOVERNOR L. C. HUGHES.* Born in 1843, of wealthy parents, who had settled in Philadelphia, L. C. Hughes was left an orphan at the early age of two years. Having spent a number of years on a farm, he took to the machinist's trade. During the time he was thus engaged came the declaration of war, and following

*Arizona Republican, August, 1893.

the patriotic impulses which Lincoln's appeal to the young men of the country aroused, he enlisted in the One Hundred and First Pennsylvania Volunteers. After two years of the hardships which active service brought in its trail, he was discharged on account of disability. After partial recovery he joined Knapp's Pittsburg Battery, this time answering to the summons for the defense of the National Capital. The need for further service over he returned to Pittsburg and worked at the machinist's trade again, at the same time attending night school in preparation for an academic course, which he took at Meadville. Even at this early age the individuality of the man was shown. It will probably be news to even his most intimate acquaintance in Arizona to learn that he is one of the men who in 1865 first circulated petitions addressed to Congress to adopt the eight hour system in all public work. In '65 and '66 he took a very active part in the labor movement at Pittsburg and was entrusted with the circulation and management of a petition asking Congress to establish an eight hour law in all government work. Eight thousand signatures to the petition were obtained. This was the beginning of the eight hour movement. Then he devoted himself to writing and discussing the various phases of the labor question. Some of the plans originated through those lectures have since come into operation were conceived by him. For example, he contributed a series of articles on the subject of industrial co-operation, claiming that this is the only solution of the labor problem, and this principle has been adopted by many of the largest firms in the country. He also founded the first co-operative store in Pittsburg on what is known as the Rochdale plan. His activity in these movements brought him into close contact with "Father" Upchurch, who founded the Ancient Order of United Workmen. He assisted in founding the first lodge of that famous organization, Jefferson Lodge No. 1, at Meadville, Pa. The order was first started with the idea of bringing about a federation of the labor interests of the country, an idea which has now been practically carried into effect through other organizations.

After his academic course he read law with the firm of Derickson & Brawley of Meadville, and in 1870 was admitted to the bar. Hard study hard work and the hardships of war undermined

a robust constitution and Governor Hughes was compelled, on the advice of his physician, to seek a milder climate than that in which he was living. Hence he came to Arizona, settling at Tucson.

Here he began the practice of law with well merited success. From 1871 to 1880 he served two terms as district attorney, two terms as probate judge and ex-officio superintendent of public schools of Pima County and one term as attorney-general. In 1880 he gave up a lucrative legal practice in order to enter the field of journalism. He founded the "Weekly Star" in '77, the first Democratic journal published in Arizona, and two years later he founded the daily. With the starting of the "Star" came the birth of the Democratic party. While aggressive then, as it has been ever since, in politics, the "Star" did not neglect those matters in which all parties could take a hand.

At this period the Apache Indian question was the one burning problem of the hour. The settlers were being murdered, property destroyed, and none were safe save in the settlements or around the military posts. From its first issue the "Star" advocated the policy which was adopted. Day by day it pointed out that the only true and permanent solution of the Indian problem was in their removal to the Indian Territory, or some other place at a sufficient distance from the Territory as would prevent their return. By keeping this problem constantly before the people the "Star" eventually brought it to the position where the entire press of the country was compelled to take it up.

But for five long years the "Star" stood alone in advocating the policy of removal; in order the better to aid in calling the attention of the East to the subject Governor Hughes secured the agency of the Associated Press. Every fresh Indian outbreak was followed by a meeting. Resolutions were passed and transmitted to Washington and at the same time spread throughout the country through the medium of the Associated Press. On President Cleveland being elected for the first time resolutions were adopted in every portion of the Territory calling on him to do something to relieve the people from the repeated attacks of the murdering Apaches. Governor Hughes went to Washington as the bearer of these resolutions and undertook the duty at his own expense. He laid the petitions before

Mr. Cleveland and made an earnest appeal in behalf of the people. For this purpose he paid several visits to the executive mansion. President Cleveland showed an unusual interest in the subject and before the close of his term the policy of removal was inaugurated. General Nelson A. Miles was assigned to the duty; the Apache question was soon settled and the murderous tribes of Apaches were far beyond the limits of Arizona Territory. No one but those who lived in Arizona in those terrible days knows what the settlement of the Indian question meant.

This one evil removed the "Star" took up another which Governor Hughes regarded as no less an enemy of good government and peace. This was the liquor question. Upon this matter the views of the Governor are extreme. It is one of the social problems upon which he knows no half measures. He began a war upon the saloon and gambling element which he has continued to this day. The fight meant much in the way of self-sacrifice from a financial standpoint, but the Governor determined to make the sacrifice. From that time on there was waged against him an unceasing war. In desiring to destroy the liquor traffic the "Star" became a pronounced champion of woman suffrage, in order to give, as Mr. Hughes has said in public speeches, the mothers of Arizona the right to protect their children against the temptations of drink. The feeling of the territory with regard to woman suffrage is shown by the fact that the last Legislature passed a suffrage bill which was defeated by only one vote in the council. He claims "that a woman is admitted to the gallows, to the jail and to the tax roll she should be admitted to the ballot box." While most men may regard his views on these matters extreme, they cannot help admiring the principle of a man who is willing to show faith in his convictions by such sacrifices as those which he has made.

In politics Governor Hughes was educated as a Republican. Shortly after the war, however, he visited the South and felt that the policy being carried out by the Republican party was not such that he could any longer support it, and in the campaign of Seymour and Blair he cast his lot with the Reform party.

In all his work of reform he has been encouraged and assisted by his wife, who, by the way, claims Pennsylvania as her home. Miss Joseph-

ine Brawley—that was her maiden name—belongs to one of the most prominent political families in Western Pennsylvania. They were married in Meadville, Pa., in 1868. Of the marriage there are two children, Miss Gertrude B. Hughes, who recently graduated in music and elocution from the New England Conservatory of Music, Boston, and John Hughes, who is twenty-one years of age.

Education is one of the matters upon which Governor feels as strongly as he does upon any subject yet mentioned. He aided in establishing the public schools in the Territory, while Mrs. Hughes has justly received the title of the mother of the Arizona public school system, having founded the first public school for girls among Arizona people. She is also president of the Womans Christian Temperance Union of the Territory. In her many charitable undertakings she is joined by her husband. A helping hand is given with equal readiness to churches of all creeds, for Mrs. Hughes and Governor Hughes believe that a community without religion is bereft of the most powerful agency of civilization. They have one purpose—the improvement of their fellows, and are supporters of every institution which can bring about this result.

The Governor's policy when in office was one which met with the hearty approval of the people. In all his appointments he has had regard to one thing in applicants—merit, moral worth and general fitness. He has shown that he was determined to ignore factions and cliques and to pursue that line of conduct which was for the best interests of the people. This was the course which he pursued to the end, and the people are to be congratulated upon the wisdom displayed by President Cleveland in selecting so worthy a man for the highest position in the Territory.

A. C. SHELDON. It is a well attested maxim that the greatness of a country lies not in its machinery of government, nor even in its institutions, but in the sterling qualities of its individual citizens, in their capacity for high and unselfish effort, and their devotion to the public good. Among those in Arizona entitled to due recognition is A. C. Sheldon, the president of the Rio Verde Canal Company. Mr. Sheldon was born December 3, 1837, in Essex County, New York,

and is descended from one of first families of the East, members of which were among the pioneers of that country. A. C. Sheldon was one in a family of seven children, five yet living, born to the marriage of Aiken E. and Phoebe (Perry) Sheldon. He received a good education in youth and at about the age of sixteen years began teaching school. This occupation he continued until about the year 1861, during which time he also attended school, perfecting himself in the higher branches of learning. Having taught school in his native State and in Michigan and Wisconsin, he returned to New York State and began the study of the law. In 1862 he entered the law department of the Albany University, from which he was duly graduated, and admitted to the bar, in 1863. He commenced practicing his profession in Essex County, but the winter of 1863-4 was made deputy clerk of the New York General Assembly, in which capacity he served three successive years. Believing that a young man had better chances for success in the great and growing West, he went to Pike County, Missouri, in 1866, and there practiced law until 1881 when, owing to ill health, he passed the succeeding two or three years in the more favorable climate of North Dakota and Minnesota. His health still failing, he removed from Minneapolis, in January, 1889, to Phoenix, Arizona, and within five months time, owing to the outdoor life he had selected, he was on the high road to permanent recovery. The healthfulness of the climate, and the belief in the future greatness of the Territory, decided Mr. Sheldon to make it his permanent home. After considerable time and money spent in examining the Salt, Gila and Rio Verde Rivers, he became convinced that a canal from the latter river would be a paying investment for capital; and acting upon this belief he was instrumental in the organization of the Rio Verde Canal Company, in September, 1891, and since that time has been president of that organization. A firm believer in the future greatness of Phoenix and the Salt River Valley, Mr. Sheldon has been the soul and life of the company of which he is president, and it is through his instrumentality that the enterprise is an assured success. Socially he is prominent in Knights of Pythias and Knights of Honor circles. September 13, 1865, he married Miss

Ellen M. Havens, only daughter of Palmer E. Havens, of Essex, New York, by whom he is the father of one child now living—Edmund Perry, a graduate of Minnesota University, and tutor of botany in that institution. The mother died in 1873. In 1876 Mr. Sheldon was united in marriage with Emma E. Cushing, of Canada, who has borne him five children: Benjamin C., Don G., Nellie A., Edward A. and Brooks.

FRED. HEINLEIN. Special aptitude for architecture is a prerequisite to success in this difficult profession, and unquestionably no one who has become connected therewith can achieve a higher reputation or develop a more desirable one than Fred Heinlein, who is territorial architect and superintendent of buildings of Phoenix, Arizona. He is a product of Bavaria, Germany, born July 5, 1859, and received a thorough education in the schools of his native country. He took a thorough course in the architectural department of the university of his section and later obtained a position in Bamberg, in the building department, as superintendent of a large school house which was being erected, and had charge of the water works, sewerage and gas works for about nine months. Then his time came to serve in the army and he was in the engineer corps and served his time in this department. Mr. Heinlein then decided to cross over to America and he located first at St. Paul, Minn., where he was engaged in an office as draughtsman for two years. From there he went to Helena, Montana, and opened an office on his own account, remaining there until 1892. He constructed the Masonic Temple, a four story business block, a number of school houses, the Jewish Synagogue, etc., and then left for Phoenix, Arizona, where he arrived December 18, 1892. He lost no time, but immediately engaged in business. Mr. Heinlein has built the Fleming Block, the finest building in Phoenix, also the High School Building, Normal School Building, Reform School Building at Flagstaff, the dormitories on the University at Tucson, the Maricopa County Jail and office building for sheriff and dozens of others too numerous to mention. He is one of the oldest and most successful architects in Arizona and is well known throughout the Territory. Proofs of his skill are

numerous as embodied in the many splendid buildings he has designed and erected. These buildings are much admired by experts for their stability and elegance, while the elaboration of detail and care bestowed upon every department of the work reflect the utmost credit on the methods of the architect. At present Mr. Heinlein is putting up a large business block in Yuma. He was married in Helena, Montana, in 1887, to Miss Emily Kenck, a native of Nevada, who died January 10, 1896. In his social relations Mr. Heinlein is a member of King Solomon Lodge, Number 9, Arizona Chapter Number 1, Phoenix Commandery Number 3 and Alamalaka Shrine at Los Angeles.

A. M. FRANKLIN. There is not a more popular citizen and official in Maricopa County, Arizona, than A. M. Franklin, who is now Secretary of Territorial Board of Equalization. He is a product of the old town of San Diego, California, born December 23, 1857; son of Maurice A. and Victoria (Jacobs) Franklin, both natives of England. The parents were married in this country. The father crossed the ocean in 1849 and the longer he remained in this country the greater Englishman he became, not on account of the people but on account of the government. He settled in San Diego, built what is known as the old Franklin House in 1855 or '56 and for many years was an old land mark. He assisted in building the old Tom Scott railroad. Mr. Franklin was a prominent leader in all secret organizations and was well known in those circles. A Jew by birth he lived up to his native creed of religion and passed his last days in California. His death was caused by an accident that occurred in 1851, while damming up a creek for a gold placer. Mrs. Franklin died in 1862. Our subject is the elder of the two children born to this worthy couple. Selim M., an able attorney, resides in Tucson, Arizona. A. M. Franklin grew to manhood in California, received his education in the University at Burkley, but when his father died he left college and for some time was in his grandfather's office in San Francisco. From there he went to San Bernardino, his old home, and embarked in general news and stationery business, but only carried this on a short time when he sold out and in April, 1876, came to

Arizona, locating at Tucson. He came by stage from Colton, California, and was four nights and three days on the way. During that trip he encountered a severe sand storm and was almost suffocated. The water and food supply was very poor and they suffered considerably from thirst and hunger. Pork and beans was a dollar a plate. After arriving at Tucson Mr. Franklin entered the employ of his uncles, L. M. and B. M. Jacobs, wholesale merchants, and there remained until 1879. While a resident of Tucson he was elected Supervisor of Pima County and subsequently resided in a portion of the county that was cut off and added to Graham County. He filled that position in Graham County two terms, but the county was so wild, the Indians so numerous and hostile, that he disposed of his effects and in 1885 moved to Tucson. While in Graham County he practiced law in connection with other enterprises and after coming to Tucson was with the firm of Jeffords & Franklin until March, 1887. He then moved to Tempe and formed a co-partnership with T. L. Schultz in real estate, loans, etc. They were self constituted in this business and it is said that they brought more people into Salt River Valley than any other two men residing in the Territory. They have been identified with every colonization proposition in the valley, as well as water propositions, and were general agents for all the consolidated canal property. These wide-awake men issued a pamphlet giving true facts of the valley and this has been widely circulated. They were instrumental in having an act passed by Legislature, exempting a good many factories from taxation, this with a view to making more profitable homes for more people. In March, 1895, Mr. Franklin and Mr. Smith dissolved partnership and the former purchased the interest of Howard C. Boone of the firm of Boone & Lewis, general agents for the Territory of Arizona for New York Life Insurance Company, and for some time has represented that company. In August, 1895, Mr. Franklin was elected Secretary of territorial Board of Equalization, which position he now holds. From 1884 until the present time he has held the position of notary public. Mr. Franklin is now interested in agricultural pursuits and owns some good alfalfa land upon which, each season, he fats cattle for the

market. He was secretary and director of Tempe Canal Company and its branches, and for some time resided at Tempe, Arizona. He is a member of the I. O. O. F. and Oriental Order of Humility. In the month of October, 1895, Mr. Franklin married Miss Eliza A. Wildman, of Arizona. This enterprising and pushing young man may be classed among the pioneers of Arizona, having settled in this section when all was wild and undeveloped. He is a Democrat in politics and an active worker for his party. He has had many exciting adventures since his residence in Arizona, and he was one of the organizers of the State Militia in 1884.

RALPH E. WELLS. The gentleman whose name heads this sketch, comes of an excellent family and is, himself, one of the substantial citizens of Prescott, Arizona Territory. His career presents an example of industry, perseverance and good judgment, rewarded by substantial results well worthy the imitation of all who start out in life as he did, with no capital except a good constitution and a liberal supply of pluck and energy. Although he is still a young man, he has arisen to distinction as a railroad man, and at the present time is filling the honorable and responsible position of assistant general manager of the railroad at Prescott, to which position he was appointed May 1, 1895. Mr. Wells was born in Guelph, Ontario, Canada, September 24, 1866, and in his native town was given a practical high school education. His first experience in connection with railroads was as office boy at St. Joseph, Mo., with the Kansas City, St. Joseph & Council Bluffs Railroad in 1883, and by 1884 had become clerk to the superintendent, and during four months of that year was secretary to the general manager. He then went to Chicago as secretary to Vice-President Peasley of the Chicago, Burlington & Quincy Railroad, and after remaining there one year, in 1885 became secretary to A. A. Robinson, vice-president of the Santa Fe at Topeka, Kan. In 1889 he became assistant and practically had charge of the office until Mr. Robinson retired from railroading in 1893. He then went with that gentleman to Mexico and entered upon the duties of chief clerk to the general manager of the Mexican Central Railroad in the City of Mexico, where he remained until Decem-

ber, 1894, when he located in Pueblo, Colo., but four months later came to Prescott, Arizona Territory, and has since filled his present position, the duties of which are heavy and responsible. Mr. Wells has become well and favorably known here and he and his wife have made many friends. He was married December 3, 1889, to Miss Frances Grace Hawley, a native of Topeka, Kan., whose father was the first purchasing agent of the Santa Fe Railroad. This gentleman was a Canadian by birth also, as was his wife. Mr. and Mrs. Wells have three interesting children: Ralph E., Jr.; Howard Hawley and Robert.

GENERAL ARCHIBALD J. SAMPSON. This noted citizen was born near Cadiz, Ohio, June 21, 1839, and is of Welsh-Irish parentage. He grew to sturdy manhood on a farm; received his early education in a log school house, but subsequently attended the New Hagerstown Academy and still later entered Mount Union College, from which institution he was graduated on his twenty-second birthday. While attending college he taught several terms in country schools and was very successful as an educator. When the civil war broke out he enlisted and served for over a year, but on account of poor health, returned to his native State, where he was elected superintendent of the Union schools at Uhrichsville, Ohio. After serving in that capacity for a year he declined a re-election and again entered the army as a private, serving until the close of the war and rising through the several grades to that of captain, which last promotion was awarded him for "brave and meritorious services in battle." For some time, even in the camp as a soldier, Mr. Sampson had pursued the study of law and on his return home, having passed the requisite examination, was admitted to practice at Mount Vernon, Ohio. He was subsequently graduated from the Cleveland Law School, and in 1865 located at Sedalia, Missouri, where he began a successful practice. While a resident of that city he served as county superintendent of schools, as attorney for the State Board of Education for the Fifth Congressional District, and as city and county attorney. In 1872 he declined the appointment of United States consul to Palestine to which he had been appointed by President Grant. In 1873 Mr. Sampson removed

to Colorado and located at Canon City where he resumed the practice of law and served one term as county attorney. In 1876 he was nominated and later elected attorney general of Colorado, receiving one of the largest majorities on the ticket. For many years he has been a prominent and popular campaign speaker, having accepted invitations from a number of State Central Committees other than his own, and has spoken in many different States. He was always in demand in his own State. Early in President Harrison's administration he was appointed United States consul at Paso del Norte, Mexico, this being the most important consulship in Mexico. While discharging the duties of that position he learned to read and speak the Spanish language. General Sampson has been very active in the Loyal Legion and G. A. R., having served as judge advocate three terms and as aide-de-camp on the staff of six national commanders-in-chief, as assistant adjutant general one year and is now the department commander of the G. A. R. of Arizona. He is also an active Knight Templar Mason and is connected with other orders. Mr. Sampson has acquired prominence in literary circles through various lectures which he has delivered upon "Music of the War," "Music and Musicians," "Lincoln," and other subjects. General Sampson was married to Miss Kate I. Turner, daughter of Judge A. C. Turner of Cadiz, Ohio, in 1866. She died in Denver, Colorado, December 15, 1866. He was again married, selecting his second wife in the person of Mrs. Frances S. Wood, of Joliet, Illinois. She is active in the social and religious circles of Phoenix, where the General located in 1892. He has not resumed the practice of law, but is engaged in ranching and looking after mines, loans and investments. For years he has been an active politician, as before mentioned, and has "stumped" the territory in the interests of Republicanism. He stands foremost in the ranks as an enthusiastic "stump speaker" and is probably not excelled in that respect in the Territory. He is courteous, affable and a most agreeable gentleman to meet.

ANCIL MARTIN, M. D. In these days it is an indisputable fact that the tendency of medical and surgical research is turned toward specializa-

tion. It would be absurd to say that a physician will not naturally take a deeper interest in one branch of his practice than another, or that, taking such an interest, he will not devote more attention to the study of that branch than to the study of the others. He may not advertise himself as a specialist, but the people soon find out that he is and he is employed because he is. This inclination of mind led Dr. Ancil Martin to give special study to eye, ear, throat and lung trouble, and as a consequence he is sought by those thus afflicted more often, perhaps, than many other physicians, though he is not an old physician and has not been long in practice here. He was born in Delaware County, Iowa, March 11, 1861, in the town of Delhi, and is a son of Ancil and Anna (McKinzie) Martin, the former a native of New York and the latter of Canada. The father was a contractor and early moved to Iowa, where he resided many years. Later he moved to Los Angeles, California, and resides in that city at the present time. Ancil Martin, Jr., grew to manhood in his native county and received his education at Beloit, Wisconsin, and later at Ann Arbor, Michigan. He began the study of medicine and graduated at Rush Medical College, Chicago, in 1885. Following this he located in Pittsburg, Penn., and remained there one year as assistant to Dr. W. H. Daly. From there he went to Marshalltown, Iowa, practiced there six years, and while there was president of the Iowa Medical Society. He then took a post-graduate course in New York City, and in 1892 came to Phoenix, Arizona, where he has built up a good practice. He has been president of the County Medical Society and also the Territorial Society. Socially he is a Knight Templar Mason. The Doctor was married November 12, 1895, to Miss Mariam Talbot, a native of Chicago, Illinois.

JUDGE JOHN J. HAWKINS. Among the men of Arizona noted for character and ability is Judge John J. Hawkins, who is one of the most popular of the many worthy men elevated to the bench in the history of the Territory's jurisprudence. He is a native Missourian, born in Saline County, January 4, 1855, and a man whose educational facilities have been of the best. He attended William Jewell College, a Baptist college of Liberty, Mo., and subsequent-

ly entered the State University at Columbia. Following that he was in the law office of Hon. Thomas Shockelford of Glasgow, Mo., and was admitted one year later, in 1878. He then formed a partnership with Mr. Shockelford, with whom he continued in Glasgow for five years. In 1883 he removed to Prescott, opened an office there in the summer of that year, and on the 1st of January, 1885, he formed a partnership with Judge Herndon, continuing with him until appointed to the Supreme bench in 1893. He represented Apache, Norojoe, Coconino, Yavapai and Mohave counties. During 1885 and '86 he was probate judge of Yavapai County, Territorial judge for four years and a member of the Territorial Council during the Seventeenth Legislature. While in the Seventeenth Legislature he was chairman of the Committee on Ways and Means and of the joint Commission of Public Instruction. Judge Hawkins has made his home in Prescott, but he has interests all over the Territory and is a man full of energy and determination. He is a member of the Masonic Lodge at Prescott and three lodges and the Shrine at Los Angeles. In the month of May, 1885, he married Miss Olive Birch, daughter of Thomas E. Birch of Missouri, and they have one child, a daughter, named Eliza.

HON. CHARLES D. POSTON. Among the early pioneers of Arizona it is but just to say that Charles D. Poston takes a prominent place, and as an attorney he is recognized as a man of superior ability, force of character and determination. He has been a steady worker in aiding and developing the resources of the Territory, and is a firm believer in its future prosperity, when all its wonderful avenues of wealth shall have become known. Mr. Poston is a product of Hardin County, Ky., April 20, 1825. When but twelve years old he was left motherless and soon after he was placed in the county clerk's office, where he served an apprenticeship of seven years, learning the rudiments of law. For three years after this he was in the office of the Supreme Court of Tennessee, at Nashville, where he studied law and was licensed to practice. Upon the acquisition of California he joined the Argonauts and was honored with a first-class appointment in the custom house at San Francisco. Upon the conclusion of the treaty with Mexico

for the purchase of Arizona he embarked with a company of about thirty men for exploration of the new Territory, arriving at Guaymas in January, 1854. After examining the Territory and taking specimens of mineral wealth, he returned to California and thence by the Isthmus to New York, Kentucky, and Washington, where he spent the year 1855 enlisting interest for the new possessions. In 1856 he returned to Arizona with a company and funds for opening the silver mines, and continued this arduous and dangerous occupation until relieved by General Heintzelman (the president of the company) in 1857, when he transferred his intelligence to the office of the company in New York. Upon the commencement of the Civil War he was in charge of the company's business in Arizona with a plant that had cost nearly a million dollars. When the country was abandoned by the United States troops, and after sad havoc by the Mexicans, Indians and Americans, he left the country in ruins, with only a companion (Prof. Pumpelly), vide "Across America and Asia." Repairing to Washington he served awhile as volunteer aid to his old friend, General Heintzelman. In 1863 he was appointed by President Lincoln Superintendent of Indian Affairs for Arizona. Upon the organization of civil government in Arizona he was elected first delegate to Congress. At the conclusion of his term he made the tour of Europe; visited the Paris Exposition of 1867, and wrote a little book called "Europe in the Summer Time." Returning to Washington he resumed the practice of law in partnership with Judge Batts of California, but the delays of Washington jurisprudence were irksome to an impetuous nature. When the news of the Burlingame Chinese Embassy came over the wires it fired an old ambition to see "the splendor and havoc of Asia," and he obtained an honorary commission from Mr. Seward to visit Asia in the ostensible interest of "Immigration and Irrigation," and was also commissioned as bearer of dispatches from the Chinese Embassy to the Emperor of China. He was accompanied on this voyage by his old friend and traveling companion, Ross Brown, as Minister to China. Before the inauguration of President Hayes our traveler was appointed by President Grant Register of the Land Office in Arizona. He also served as consular agent at Nogales, Mexico, and military

agent at El Paso. For five years after this he was in Washington engaged in promoting the interest of irrigation by the Government on the arid lands of the West, a measure which has produced more good results than any enterprise since the construction of the Pacific railways. Mr. Poston has served as agent of the Department of Agriculture and has been president of Arizona Historical Society.

HON. ROBERT W. GROOM. The career of this gentleman is an example of industry, perseverance and good management, rewarded by substantial results, well worthy the imitation of all. He was born in Clark County, Kentucky, August 28, 1824, but his parents were native Virginians. When three years old he was taken to Missouri by them and there remained until twenty-four years old, attending the country school. He then returned to Kentucky, attended school there for a year or so, and took up surveying. Later he became deputy county surveyor of Trigg County, Kentucky, holding that position from 1845 till 1848. From there he started for Oregon, but getting as far as St. Louis he met an old class-mate, and together they finally decided to go to Chicago and engage in the real estate business. After reaching that city Mr. Groom was taken very ill with malaria fever, and after recovering did not like the outlook. Hearing that Fremont was near Kansas City he decided to go there and go with him to the Pacific coast. He arrived one day too late for Colonel Fremont, and then returned to Kentucky. In 1849 he returned to Liberty, but in the year 1850 started for California, making the trip by way of Salt Lake City. At Houghton he engaged in mining for a short time, but went from there to Salmon Falls, on the American River, where he again resumed mining. This he gave up a little later and wandered to Nevada City, thence to Sacramento, Gibsonville, and in 1851 went to another place, where there were excellent prospects. Mr. Groom located his ground, but woke up one morning to find that there was no water in the town of one hundred tents. Leaving that place he went to Marysville, where he arrived with his feet on the ground, having walked most of the distance. Here he worked at cradling wheat until he had earned about \$20 and then started for Nevada City, Cal. From the

last named place he went to South Yuba and thence to Frenchman's Bar, where he struck good prospects and earned fifty dollars a day. However he saved nothing and soon took a notion to go to the coast. Arriving in San Francisco he heard so much about Los Angeles that he decided to go there, and went by steamer. While in the latter city he secured a position as surveyor to locate a line from San Bernardino Mountain to the boundary of Old Mexico. He was engaged in other enterprises in California, and after finishing the surveying returned to Los Angeles, where he and a partner put up a trading post about half way between that point and Yuma. He had numerous adventures during his journeys here and there and some narrow escapes from death. He was elected county surveyor of San Diego County, served about four years, and was also elected deputy United States surveyor. In 1857 he was elected to the Legislature from San Diego County and served one term. He was the only one to locate the country not yet surveyed. In 1859 he was again elected to the Legislature from San Diego County, and before the session had adjourned he was attracted to the noted Comstock Mines, Nev., by the excitement there, and remained in the mines, never returning to the Legislature. In 1860 he went to San Francisco and later began searching for another Comstock mine. He went as far as San Bernardino Mountains in search of silver, but was unsuccessful. After wandering around until 1862 he went to La Paz, on the Colorado, where rich mines had been struck (it was said), but nothing found. Later, after a number of false moves, he went to (old) Albuquerque, New Mexico, and at that place was advised to go to Santa Fe, or he and his companions would be arrested as rebel spies. They remained in the last named place a week or ten days, and were then arrested, all their animals confiscated, and they marched to Fort Union, a distance of one hundred miles, in irons. There a chain and ball were attached to each, and a shovel, to build breastworks, was given each one. Affairs began to look serious, for there was danger of them being shot as spies any day. Mr. Groom wrote a letter to General James McDougall of California describing his situation, and the answer that was returned had the desired effect, for he was soon after liberated. From there he went to

Santa Fe and thence to Placeritas. In the meantime Mr. Groom learned that General Carleton was going to send a party to Walker's Camp, at the head of the creek, and he asked permission to go with the party. While at General Carleton's office he met Kit Carson and others and received much attention from all. He was chosen as guide to find the camp. In ascending a large mountain his companions became discouraged and turned back, but Mr. Groom reached the top and said it was the grandest sight he had ever seen. He was above the clouds and before the clouds settled down on him he had picked out the spot where Walker's Camp should be. He then retraced his steps, and joining his companions found that they had been through a six hours' rain, although he had not been touched by a drop. A few days later they reached the camp all right, the only incident of note during that time was the killing of a grizzly bear by Mr. Groom. Later the latter was employed to lay out the town of Prescott, and he concluded this work in the summer of 1864. Afterward he continued prospecting and had discovered the Bully Buena in 1863, but did not work this mine until the fall of 1864. He also established Groom Creek in 1863, this being the first quartz mining done in that part of the country. Since that time he has been engaged in prospecting.

HENRY WOOD DODD (deceased). This gentleman, well known by Arizonans of the old days, was possessed of more than the average intelligence and was one of the bravest of the brave. His life began in Toledo, Ohio, February 7, 1839, and he was fourth in order of birth of six children of General E. S. Dodd. The general died when Wood was but six years old and when the latter was sixteen he entered the Bank of Toledo as a clerk, remaining there until the breaking out of the rebellion. He could not resist his natural instincts, hence he resigned his position in the bank and enlisted in the First Ohio Light Artillery. Young Dodd had not served long before his natural bravery attracted the attention of his superior officers; in fact, it was so conspicuous that his name was sent to the Secretary of War, who ordered young Dodd to report himself at Washington. After a short talk with Stanton he was presented with a commission and ordered to report for duty as aide-de-

camp on the staff of General Kilpatrick. This sort of service was not to young Dodd's liking, so by order of the Secretary of War (Stanton) he was detailed in the department of the Provost Marshal and rendered valuable service in the secret branch until the close of the war. He scouted in this capacity for Burnside, Hooker, Meade and Grant, and amid dozens of exciting adventures and hair-breadth escapes, always managed to avoid permanent capture. Upon two occasions, however, he actually fell into the hands of the enemy. They were but temporary captures. On the first occasion he was taken prisoner by Henry Gilmore. He had undertaken to carry dispatches from Sigel to Grant in the Wilderness, but after having about half traversed a very difficult road he was suddenly accosted by a party of Confederates. His wits alone saved him. He played deserter, was taken before Gilmore, and ordered by him to report to Breckenridge, obtain a parole and go home. In the meantime he had managed to destroy his dispatches. This was particularly fortunate, for soon after his capture he was stripped, his clothing examined and most of it appropriated. He did not report to Breckenridge, however, but taking advantage of nightfall started to swim the north fork of the Shenandoah. While thus engaged he was hailed by four Confederates, who fired at him three or four times without effect. Reaching the other side, he made his way to City Point, joined Grant and conveyed to him the verbal part of his instructions. The second time he was made a prisoner he was placed upon a mule, and, although closely watched, was not tied. His captors were taking him to the rear, as they thought, but before they knew it came upon the Union pickets. It was quite dark then, and in the stampede that resulted he slipped off his mule and escaped. From City Point he made quite a number of trips inside the enemy's lines. The secret service had a regular depot there. This was at the house of an old lady who used to go to Richmond and obtain the news from parties she and they were sworn not to divulge. One night while a party of these daring fellows, Dodd among them, were seated in the old lady's kitchen eating corn dodgers and milk, there was a rap at the door. In answer to their permission to enter in walked a Confederate in full uniform, with pistol and carbine. He had lost his way,

and not recognizing his customers, asked about it and the time of day. This he was told, and was then invited to dinner, an invitation the unsuspecting fellow accepted. During the meal it leaked out that he was a messenger with important dispatches. When Dodd and his party were ready to go they told the new comer that he would better come along across the river with them. "Are you 'uns Yanks?" asked the surprised Confederate, "Yot bet," was the reply. They took him with his bag of mail, and it turned out to be a very important capture. At the close of the war Mr. Dodd was employed for a long time on secret police duty in Washington, Richmond, Fredericksburg, Charlottesville, etc., and had not a little to do with many of the more forcible measures of reconstruction that were sometimes resorted to. Mr. Dodd was the man who captured Dick Turner, and for years had the order giving him the authority to do so. He also had valuable orders and passes signed by General Kilpatrick. On the 12th of July, 1869, Mr. Dodd, with two others, and accompanied by a party of Coyotore Apaches, pulled out of the Pueblo de Zuni on an unsuccessful search for the fabulous gold placers of Dr. Thorn. They were camped for two weeks on Salt River, a little above the present site of Phoenix, and after that each went his separate way. Mr. Dodd remained in Arizona and engaged in prospecting, trading and serving the Government as guide and scout until 1886, when he was thrown from his horse and sustained injuries from which he shortly afterward died.

THOMAS GATES. The following, copied from "Reminiscences of Arizona" and edited by A. F. Banta, speaks of the true character of Thomas Gates:

"Thomas Gates, the late superintendent of the Territorial prison, committed suicide by shooting himself through the head in Yuma, Arizona. Many people are prone to thoughtlessly remark, 'No one but a coward kills himself.' Here is a case in point which proves the contrary to be true, that cowards do not, and that it is only brave men that take their own lives. We first met Tom Gates thirty years ago, in what is now called (old) Albuquerque. And when we say that Tom Gates was not a coward we speak from personal experience, for Gates

was as brave as they make 'em. Tom Gates first came to Arizona, from Los Angeles, Cal., in the year 1866. He and Billy Brannen left Los Angeles for Tucson, via Arizona City, and the other towns en route. These two men—Gates and Brannen—made a pair hard to beat, for both were desperate to a fault. Both were poker players, and their trip and partnership was a sporting one, lasting until after reaching Santa Fe, New Mexico, in the fall of 1866. They did a good business at Tucson, as also at Las Cruces, and perhaps some of the oldtime sports of 'ye ancient and honorable Pueblo' may recall their losings if not the circumstances. The summer of 1866 Thomas Gates and Billy Brannen reached (old) Albuquerque. One night a big 'officers' baile' was at full blast at 'Our House,' a dance house run by Miller. These bailes were 'free and easy' affairs, but when patronized by officers and civilians exclusively they were considered just a little bit 'tony.' The music started up, so did Gates with a fair (?) partner for a Spanish quadrille. As was the custom, Tom and his partner took position, but being near the seats which ran around the room, she sat down while Tom stood talking to her with his back to the room. The 'floor-guy' called time and Tom stood up to find his place occupied by a strapping big fellow wearing shoulder straps, and feeling as big, perhaps, as a brigadier-general. Tom politely told the officer that the place was occupied by himself and partner. The officer turned upon his heel and seeing a little fellow looking up at him deliberately turned his back on Tom and continued his conversation with his senorita. The room was full of officers and citizens (no private soldier being allowed in there while their superiors were occupying the place. The snub by the officer roused Gates, and catching the gentleman by the collar Gates jerked him around, at the same time saying: 'You big, brass-mounted ———, I am occupying this place; do you hear?' This was something awful for a common citizen to use such language to an officer, and this, too, in the presence of a dozen brother officers; why, it was simply outrageous and not to be put up with. Every officer left the room. The ball went on as though nothing had occurred, and the next day there was some talk of a duel, but upon 'investigation' they found a Tartar had been stirred up, and they quietly

'pulled their freight' for Wingate and other military posts. Leaving Albuquerque our two friends went up to Santa Fe—the Mecca of sports; the general rendezvous, at one time or another, of all the 'fighters' of the Southwest. Here was to be found Greek George, Jack Davis, Pete McAtee, Joe Stinson, Andy Reeves and a dozen or more of the lesser knights of the six-shooter and knife. Shortly after reaching Santa Fe Tom Gates had a misunderstanding with Andy Reeves in the saloon of Peter Knap. Now Andy was a noted character in those days; a man as ready to fight as to eat, and as to the manner of settling the dispute, why he would allow you to choose for yourself. Gates was a stranger to all the Santa Feans, and being a quiet, harmless-looking little fellow, no one thought him particularly 'hard.' To settle the dispute Andy resorted to a double-barrel shotgun, while Tom relied upon his two single-shot pocket Derringer pistols. In those days and among that class of men, some of them would take desperate chances in order to play off a practical joke upon a supposed tenderfoot. Now Reeves was one of the 'joking' kind, and whether he was in earnest or undertook to play a 'joke' on Gates is not known. However, Tom's nerve was too much for Andy, for Gates faced the shotgun, walked up to Reeves and putting the muzzle of his cocked Derringer to Andy's head, and pushing the gun to one side, ordered Reeves to drop it or he would 'blow his d—d brains out.' Andy Reeves afterward said that Gates was the gamest man he ever met. At the request of Colonel Ruggles, member of the Council from Pinal, the writer of this article went to Florence, where I found Tom Gates and wife. He had married in Los Angeles and came to Arizona late in the fall of 1876 or the spring of 1877. I next met Tom Gates at Prescott during the session of 1883-84, and at that time he claimed Tucson as his place of abode. After locating in the latter place, Gates became affiliated with the local Democracy, and being naturally shrewd soon became prominent with the Pinal County Democracy. At the session of 1883-84 Gates was at the head of the legislative lobby, and through his management the Bullion tax law was repealed. After we parted in 1877 Tom seemed to have changed his ways a good deal, for in 1883 and '84 I found him to be quite a different person indeed. Governor Zulick selected

Tom Gates for superintendent of the Yuma prison, and of all the appointments made by that Governor, so far as my memory serves, the Gates appointment was the best. Thomas Gates was a man of nerve; quick to act, generous to a fault, quick-tempered and ready to fight at the 'drop of the hat.' It is hardly possible for one to be braver than Gates, although in our day we have mixed with many of the bravest. Thomas Gates, like all of us, had his faults, but surely his better qualities overbalanced the bad; the bad, if any, now lie buried forever, and may the good ones forever remain. Peace to his ashes."

JUDGE JOSEPH CAMPBELL. Among the leading attorneys of Phoenix, Arizona, is Judge Joseph Campbell, a man of unquestioned integrity, and competent in his profession. To a thorough knowledge of the legal science, he joins the general culture derived from a varied and extended course of reading, and is skilled in the presentation of the most involved and intricate facts, and forcible in his manner of dealing with difficult and tangled subjects. He is a product of San Francisco, California, born June 17, 1857, and was educated in the schools of his native city. When seventeen years old he went to Santa Rosa, to study law under Jackson Temple and was admitted to the bar when twenty-one years old. Following this he commenced practicing law at San Rafael, Cal., and remained there until 1878 when he moved to San Francisco, practicing law there until July, 1880. He then came to Phoenix, Arizona and has made his home here since. Judge Campbell was the first city recorder of Phoenix, for two terms was probate judge and also held at different times the office of United States commissioner, assistant United States attorney and assistant district attorney. He ranks as one of the brightest lawyers of the Coast. Judge Campbell was elected mayor of Phoenix on the Democratic ticket in 1891 and served two terms.

JUDGE WEBSTER STREET. This capable lawyer and honored citizen was born in Salem, Ohio, June 8, 1846, and in that city received his early education. Later he entered Antioch College, took a classical course, and graduated from that institution. He then read law under Thomas Kennet and was admitted to the bar at St. Clairs-

ville, Ohio, in September, 1870. From there he went to Leetonia, Ohio, practiced there two years and then moved to Pittsburg, Pennsylvania where he was engaged in his legal duties until in October, 1877, when he moved to Arizona. He first began at Signal, a live mining camp, but the mine failing he went to Tucson where he remained until September. During the Tombstone excitement he went to that place and remained there until January, 1887. From 1885 to 1886 he was judge of the County Court with concurrent jurisdiction of the district courts to relieve the crowded condition of the district court dockets. At the expiration of his time of service, or in 1886, he came to Phoenix and for some time was with Goodrich Bros. After the death of Briggs Goodrich he was with Ben. Goodrich, now of Los Angeles, California, until 1890. For two years after this Judge Street was alone in the practice but later he entered into partnership with Frank Cox, of Phoenix, with whom he remained from October, 1891, till August, 1894. At the last mentioned date the firm of Frazier & Street was formed. Judge Street was married May 15, 1869 to Miss Mary E. Gilmore who was born in Yellow Springs, Ohio. They have two children, Lawrence B., with the "Los Angeles Times," and Julia Gilmore. In his social relations the Judge is a member of the A. F. & A. M., the I. O. O. F., the K. of P. and the A. O. U. W.

BILL KIRKLAND. Of the early settlers of Arizona who lately came to Tucson for the purpose of deposing evidence of Indian depredations with the Special United States Attorney, there is no more interesting or romantic character than Bill Kirkland of Palomas on the Gila. Forty years ago, when but twenty-one years old, Bill had the reputation of being the best six-horse stage driver on the Pacific slope, and today, at the age of sixty-one, hale, hearty and powerful, a magnificent specimen of physical manhood, he is engaged in freighting ore for Hubbard & Powers' big Bonanza Mine in the Harqua Halas. He knew Arizona when at the Gadsden Purchase it was inhabited by the merest handful of venturesome whites. He has not only witnessed its growth to its present condition of importance, but has taken no inconsiderable part in its settlement and rebuilding. Of the first little party of five Americans who, coming overland

from California, settled in Tucson in January, 1856, Kirkland was one. They found at Tucson a presidio garrisoned by Mexican soldiers and commanded by Don Elario Garcillo. Mr. Kirkland purchased the land of the Mexican soldiers, paying \$20 for a ranch of twenty acres. He was the first of the Arizona pioneers who married a white woman in this country, having met his wife, the daughter of William Bacon of Arizona, when, as one of a company of emigrants, she arrived at Tucson in 1859. His daughter, Lizzie, now Mrs. Thomas Steele of Croton Springs, was born February 28, 1861, the first white child in the Territory. Mr. Kirkland also participated in the rejoicings, when for the first time the stars and stripes were hoisted over the adobe huts of the primitive settlement of Tucson. Having settled here he engaged at once in the lumber business. He built the first road from this city to the Santa Rita Mountains, and began to haul logs into the settlement, receiving for this \$1.25 to \$2.50 per thousand. During these trips to the mountains he had frequent encounters with the Apache Indians and on one memorable occasion had the first parley with them from which any white man had so far escaped unscathed. Accompanied by two others, in a heavy wagon with plenty of provisions and six yoke of oxen, he had penetrated well into the tree country when suddenly a party of twenty-seven Apaches came upon them. The lives of all three were that day saved by the boldness of Kirkland. Realizing in an instant the dangerous position they were in, he seized his loaded revolver, and holding it calmly, walked into the presence of the chief and asked him what was wanted. The Indian asked for the weapon, which Mr. Kirkland refused to surrender, believing that death would most likely ensue anyway, and deciding to shoot the chief at the first intimation of hostilities. After a short interview the conversation having been carried on through a little captive Mexican boy, who was with the party of Indians, the latter received a yoke of oxen for beef and a portion of the provender. An old, one-eyed savage, upon being vigorously repulsed in an effort to secure Mr. Kirkland's shirt, lanced him in the back, causing the blood to flow freely. This Bill deemed it wise not to notice, but retir-

ing to the wagon proceeded on the journey as if not at all dismayed by the encounter. Several years after he recognized at Fort McDowell, the one-eyed Indian who had hurt him, and that savage addressed him as "Brave Captain" in Spanish, related the circumstances of the meeting and wished to present him with his son, a boy about twelve years old. It was unfortunate for the youngster that Mr. Kirkland could not accept the offer, for he, with his parents and a number of other offending Apaches, were slaughtered by the soldiers. In those days Bill Kirkland was (and is yet) a dead shot. In 1857 he located what is known as the Canova ranch, the first ranch in this part of the country stocked with cattle by white men. About the same time he was leader of a party of twenty who interviewed a horde of five hundred Apaches at Arivaca Cañon for the purpose of effecting an exchange of prisoners, and recovering his adopted daughter, Mercides, a little Mexican girl, who afterward became the first wife of County Recorder Shibell, and who, with Mrs. Page, now Judge Scott's wife of Tucson, had been abducted by the Indians a few weeks before. Later Mr. Kirkland settled at Casa Blanco, near Fort Buchanan, and while residing there a band of sixteen or seventeen Indians drove off a dozen of his mules and a number of his horses. Alone, on foot and armed only with a Spencer rifle and a revolver, he pursued the party. Coming up with them, he charged on them in an open field and shot and killed one. During this time the Indians were circling around him on their ponies, displaying very little of their bodies, and shooting at him. He scattered them, however, but failed to recover his stock. His losses at various times by their depredations would reach many thousand dollars. In spite of his years Bill Kirkland carries his tall form as erect as one of the native giant cacti. Strong and rugged he appears, too, and the fire of his clear blue eye is yet undimmed. His big, rough, brown hands are palpable evidences of many a day's honest toil under a semi-tropic sun. His whole bearing is that of the ideal frontiersman, a type of man which the nation well may boast. Long may he be spared to the people of Arizona is the wish of all who know him.