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SOUTHEASTERN  
ARIZONA

— ITS —

VARIED CLIMATE

— AND —

WONDERFUL RESOURCES

BY T. E. FARISH,

Commissioner of Immigration.

INDUCEMENTS TO IMMIGRANTS.

1889.

ARIZONA GAZETTE.

#87

COMMISSIONER OF IMMIGRATION  
T. E. FARISH  
TUCSON



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## APACHERIA AND PAPAGERIA.

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THE old Spanish maps of the last century divide Southeastern Arizona, then known as Pimeria Alta, into two parts, that lying north of the Gila river is called Apacheria, and that south Papageria. To those familiar with the history of this portion of the Territory, this map recalls the long and bloody struggle between civilization and savagery. In Papageria was located the missions of Tubac, San Xavier, Tucson, Cocoperia and San Bernardino. The Papagoes, the hereditary enemies of the Apaches, under the lead of the Spanish soldier and priest, for more than two centuries maintained a severe struggle against their Apache foes, over whom they usually triumphed, and against nature's aridity by which they were often worsted. At the time of the cession of this portion of the Territory to the United States, only the missions of San Xavier, Tubac and Tucson, remained, and for nearly forty years after the American occupation the country was

terrorized by these Bedouins of the mountains, who emerging from their secure fastnesses, left a trail of blood to mark their pathway through the valleys of the Gila, San Pedro and Santa Cruz. The history of the raids of Cochise, Mangus Colorado, and of late years, of Loco, Geronimo and Natchez, and their bloodthirsty followers, are familiar to all Arizonans. All remember—with a shudder, the days not long ago, when the word was passed from neighbor to neighbor, "the Apaches are on the warpath," and when the stockman and prospector, those pioneers of an advanced civilization, fell victims to these cruel and relentless savages. For years, even after their utter disregard for all treaty obligations was established, in obedience to the sickly sentimentalism that controlled to a great degree the Eastern mind, after each recurring raid, the Warm Springs and Chiricahua Apaches were permitted as government pets, to return to their reservations, to feed and fatten upon government rations until the restless deviltry of their natures forced them, after a short period of rest and repose, to bath their scalping knives in the blood of the peaceful and unoffending settler. Few of us that cannot number many of the best and bravest of Arizona's pioneer citizens that have fallen victims in "the dance of death" these fiends in recent years had inaugurated upon the fair hills and vales of Graham, Cochise and Pima counties. The story of their outrages would fill a volume. The record of the persistent struggle made by the pioneers in this "dark and bloody ground" is an illuminated chapter in the history of Arizona that will live forever in the annals of the future state. Two years ago the last of these Indians were, by presidential order removed to Florida, it is hoped, never to be returned. The bar to its progress and prosperity removed, Southeastern Arizona has since then made rapid development. Safe in their possessions, her citizens have with commendable enterprise opened new avenues to wealth, to the profitable employment of both capital and labor. Where but a short time since, all was confusion, controlled by a secret, undefined dread, now is visible the thrift born of energy and industry, under the assurance of perfect security to person and property by the enforcement of just and equitable laws. The Apache Indian problem is solved. The Tonto and White Mountain

Apaches, once warlike and dangerous tribes upon the San Carlos reservation, for fifteen years having been following the white man "with step unsteady along the path of progress." The renegade Chiricahua and Warm Springs bands "as limbs from their country east bleeding and torn," under military surveillance, enjoy the quiet of repose in Florida. A strong race has possessed their territory; Apacheria and Papageria have faded from the modern maps, being confined to the Apache reservation, near Globe City, and the Papago reservation near Tucson.

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## MOUNTAIN, RIVER AND PLAIN.

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**S**OUTHERN AND SOUTHEASTERN ARIZONA embraces the counties of Graham, Cochise, Pima and Gila; a territorial area of 26 310 square miles, between the 30th and 34th degrees of longitude west from Washington. The country is a succession of elevated plateaus and high mountain ranges. In Graham and Gila counties on the north are the Pinal, Sierra Anches, Graham, Gila, Peloncilla Penalino and Galuero mountains drained by the Salt and Gila rivers and their numerous tributaries. In Cochise and Pima counties on the south are the Dos Cabezas, Whetstones, Huachuca, Dragoon, Chiricahua, Pedro Gosa, Mule, Santa Catalina, Santa Rita and Patagonia ranges, drained by the San Pedro and Santa Cruz rivers and their tributaries. Through almost all these mountains are found ledges rich in gold and silver, from which have been taken large sums of money. The mines of Tombstone have added probably not less than fifteen millions to the bullion output of Arizona within the past eight years, and are still producing handsomely. In the Dos Cabezas are rich gold and silver lodes that are being developed by their fortunate owners, who select their best ores for shipment and keep their lower grades to be worked when they can supply the necessary machinery near the mines.

At Clifton, in Graham county, are located the works of the Arizona Copper Company, and at Morenci, seven miles distant, are those of the Detroit Copper Company. A narrow gauge railroad

connects Clifton with the Southern Pacific at Lordsburg. These copper companies are in successful operation and have produced a large amount of copper. The Arizona Copper Company has been profitably worked for the past eighteen years. At Bisbee, in the Mule mountains, Cochise county, are the mines of the well known Copper Queen Company. Since 1880 this company has been at work making from \$100,000 to \$500,000 each year. They have a one hundred-ton smelter and several smaller ones in operation. The ore is self fluxing, and easily mined and reduced. The company will soon have a railroad in operation from Bisbee to Fairbank, on the Arizona and Sonora railroad. Globe, in Gila county, is an old mining camp. Here the Old Dominion Copper Company, notwithstanding the long and expensive transportation by wagon, have reduced a great deal of ore and made handsome returns to the owners. Around Globe are mines of gold and silver, many of which have paid well in years past, and many of which will prove veritable bonanzas when railroads shall give cheap charges on supplies. In Pima county all the mountain ranges from Quijotoa eastwards to the boundary line of Cochise are seamed with God Almighty's legal tender—gold and silver. In some are also found deposits of copper that will some day add greatly to the wealth of the county.

In this county more than two centuries ago the Spanish padres worked the mines of the Santa Rita, Patagonia and Gijas mountains, near the old Presidio missions of Tubac, Cocopura and San Ygnacio, until in 1828 they were abandoned on account of the continued Apache outbreaks. The importance of this region can be seen when it is stated that seventy-five years ago the Spanish record shows that there were 150 mines in operation within fifteen miles circuit of the Presidio of Tubac. The mines of this county are yielding about one hundred thousand dollars monthly, and the industry was never upon a more secure and solid basis.

In Gila county, on the San Carlos Indian reservation, are fine deposits of bituminous coal, the extent of which have never been determined, that thrown open to the miner would add greatly to the industrial wealth of Southeastern Arizona by giving cheap fuel to her mines, mills and furnaces, a most important factor in the prosperity of any mining camp. Aside from the mineral wealth of

these mountain ranges a great source of present and future profit in the employment of capital and labor lies in their forests, some of which, notably those of the Chicabuas and Santa Rita mountains, will furnish lumber for large saw mills for generations to come. Scrub oaks cover the lower hills, dense enough to afford a shade without interfering with the growth of the grass, while on the more elevated ranges pine is abundant. Dr. Rothrock, of the Wheeler Exploration Expedition, in summarizing his observations of the Southeastern Arizona, says:

“First that the soil, particularly that resulting from decomposition of the volcanic and sedimentary rocks, possesses the elements requisite for vegetable growth, and will produce crops where water sufficient for vegetable growth is had; second, that almost all points accessible to water enough for herds can be utilized as grazing ground; third, that the forests, though localized, contain timber enough for the wants of these regions for many years; fourth, that large areas, now abandoned for want of water, can be cultivated by a system of tanks, which, during times of plenty, shall store the surplus water for future use during the critical growing times of the crops; fifth, that under the conjoined influence of agriculture and forest culture the excessive waste of water in surface drainage and in rapid evaporation will be lessened, thus procuring from the same rainfall more lasting benefit; sixth, that the prevailing diseases are of less than usual fatality, and can, in many cases, be absolutely prevented or readily cured, and that these diseases will diminish in frequency and severity as the country is brought under cultivation.”

“The immigrant must not anticipate seeing an immense stretch of country everywhere alternating in beauty between greenswards, heavy forests and abundance of water, like the familiar spots in the East. He must expect at present to find sterility and aridity impressing their hard lines on every feature of the landscape; but he must also remember that Utah, so large a portion of which is now covered with fertile farms, with vineyards and orchards laden with fruit, was only a few years ago almost as unpromising as Arizona now is; that it is still within the memory of man that prophets of ill omen predicted that California, now one of the granaries of the Union, could never furnish flour enough for her own use.

We may fairly expect, under the demands of our increasing population, that the waste places may be redeemed and made tributary to our civilization. Labor, here as elsewhere, will bring its reward; but acres of waving, maturing crops will not come unearned."

The above was written thirteen years ago, before a railroad had penetrated the Territory, and it is marvelous how truly the predictions then made have been, and are being realized in the present. In the San Pedro and other valleys, for a long time infected, malaria has disappeared. Large areas have been reclaimed through irrigation that then were barren wastes. Intelligent appropriation and conservation of the water fall is adding annually thousands of acres to the arable lands of this region. The waste places are being redeemed. Even in the mountains, where innumerable springs pour along the surface crystal streams, sparkling like jewels in the bright sunshine, the husbandmen are making homes, and the vine and the tree, laden with ripening fruit, adds comfort to the immigrant's family and dollars to his income. Labor is bringing its reward in acres of waving, maturing crops.

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## HEALTH, CLIMATE AND SCENERY.

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WHO THE HOMESEKER the question of principal importance is climate. It matters but little how luxuriant may be meadow and field, if with these grow and germinate poisonous miasmas. No land is attractive, however soft and gentle its breezes if they carry the seeds of destructive disease. A fertile soil is not sufficient in a country where death constantly invades the family to rob the home of its fairest jewels. Modern civilization seeks pure air and invigorating climes in which to rear its battlements against the encroachments of hard times.

Southeastern Arizona has a varied climate, as diversified as its topography. In illustration one has only to leave Tucson, in the valley of the Santa Cruz, on a day in March and climb the Santa Rita mountains, twelve or fifteen miles away. The budding trees and blooming gardens, the soft air of summer is suddenly changed to the crisp, cold atmosphere of winter, with mantles of snow and ice covering tree and stream. "Here," it is truly said,

"summer and winter stand face to face, and Flora and the Snow King exchange their compliments. Within a few miles the green herbage and deep snows. Side by side, blending into one matchless picture, are summer and winter—Italy and Switzerland."

The air is dry; bright, sunshiny days the rule; cloudy days the exception. The days are warm, the nights cool, ensuring refreshing sleep. Dews and fogs are unknown. No sudden shifting from heat to cold, nor frequent breaking up of frozen ground to plant tubercles upon the lungs. No marshy rivers, stagnant pools or lakes sending out poisonous exhalations from decaying vegetation. The temperature is even, the water pure and healthful, the soil rich and generous. No sunstrokes, no blizzards. Although in portions of Southern Arizona for three months in the year the thermometer ranges from 105° to 110°, yet so dry is the atmosphere that one is not oppressed by perspiration; the death rate is an average of ten in a thousand, including railroad and mining accidents. As a winter resort Tucson is far superior to Florida. To the consumptive it is a sanitarium that gives health and vigor to many sufferers, and will, when its virtues are more widely known, become a resort for thousands afflicted with lung and bronchial diseases.

The annual meteorological summary for the year 1887 by the observers of the signal corps at Forts Apache, Bowie, Grant and Thomas, is as follows:

STATIONS.	TEMPERATURE.			PRECIPITATION.
	Mean	Highest	Lowest	Inches and Hundredths
Ft. Apache...	55°	102°	1°	17.84
" Bowie...	61	100	6	20.53
" Grant...	60	96	7	24.32
" Thomas...	64	110	8	10.35

During the same year at Los Angeles, in Southern California, the mean temperature was 82°; the highest 100°; the lowest 33°; the precipitation 13.59. The tables for Tucson are not reported, but the following table gives the temperature at Ft. Lowell, nine

miles from Tucson, for the year 1885, the only records available:

1885.	7 A. M.	2 P. M.	9 P. M.	Monthly Means.
January . . . . .	36.29	69.04	49.83	51.69
February . . . . .	39.67	69.07	52.25	52.64
March . . . . .	48.06	82.96	64.38	65.12
April . . . . .	52.36	86.03	65.00	68.13
May . . . . .	63.32	91.61	74.25	77.39
June . . . . .	75.26	103.29	83.60	87.54
July . . . . .	89.41	103.86	84.51	89.59
August . . . . .	73.93	92.12	79.61	81.84
September . . . . .	68.96	94.63	76.83	80.23
October . . . . .	57.54	87.38	67.41	70.78
November . . . . .	48.23	74.96	56.53	59.83
December . . . . .	48.03	69.03	52.54	54.90

The precipitation for the four years ending in 1885 was an average of eight inches annually. This gives the true story to the much maligned climate of Southeastern Arizona. In Tucson every year the thermometer may rise to 110°, but the air is so dry and pure that the heat does not affect the system as much as 100° in Los Angeles where the atmosphere is more humid. As to its results upon the system from a sanitary aspect, the following extract from a letter from Ex-Governor Safford, is given, which will be confirmed by hundreds who have here been restored to health here:

“Observation and residence in the Territory during the past eight years have convinced me that the climate is superior to any found elsewhere for the cure of pulmonary diseases. I have known a large number of people to come here who were in rapid decline, who have been restored to excellent health. For several years before coming here I had been afflicted with a severe cough, and my lungs were undoubtedly badly diseased. I traveled extensively, which only gave me temporary relief. I commenced improving as soon as I reached this warm, dry climate. Within six months the cough left me, but would return just as soon as I changed from this climate to that of California or the Eastern States, but now I consider myself completely cured, and do not find any difficulty in going to San Francisco or elsewhere, as I formerly did. My experience is the same as that of nearly every person who has given this climate a fair trial. It is an admitted fact

that no medical treatment has yet been discovered that will cure pulmonary consumption. The strong hold of the disease, where it germinates and most successfully carries on the havoc of death, is found in cold, damp climates, where every respiration feeds the disease and the victim is hurried to a premature grave. It is reasonable to suppose that a different climate will correspondingly benefit the afflicted. In Arizona the warm, dry atmosphere acts as a healing balm to the bleeding, diseased lungs, while the pores are kept open and the impurities of the system that in harsher climates make a combined attack upon weak lungs, are allowed to escape through the skin. It is true, to insure a cure, the patient must expect to undergo many privations and often hardships. An out-of-door life is very necessary. Constant traveling and sleeping out-of-doors at night have been found very beneficial. The patient needs something to constantly divert his attention from the disease. Traveling and seeing new scenes does this to a great extent, while exercise insures a good appetite, and the pure, warm atmosphere affords a curative application to his lungs as often as he breathes. \* \* \* The universal relief given to persons afflicted with these diseases that has come under my observation warrants what I have said."

The following from Prof. Cook, Principal State Normal and Training School, Potsdam, New York, is a just and disinterested tribute to the climate of Southeastern Arizona:

POTSDAM, St. Lawrence Co., N. Y., Jan. 5, 1889.

Hon. Thomas E. Farish, Commissioner of Immigration, Territory of Arizona.

MY DEAR SIR—I cannot express to you my appreciation of the climate of Southern Arizona. One must live in it, in order to thoroughly value its beauties and beneficial effects. I believe there is no country in the world so conducive to restoration of those troubled with throat or lung difficulties.

During my three years' sojourn under its genial skies I regained my old-time health and strength. Who that has ever visited them can forget the exhilarating effects of the Huachucas, the Santa Catalinas, the Oro Blanco's?

I am constantly looking forward to the time when I may be permitted to return to that health giving region. I cannot

commend it to highly to those seeking rest, recreation and a delightful home.

Yours truly,

E. H. Cook,

Principal State Normal and Training School.  
Potsdam, N. Y.

In this connection, the following from the pen of Dr. G. E. Goodfellow, of Tombstone, a recognized authority upon medical and natural science not only in Arizona, but in Washington, will be read with interest:

"The extraordinary immigration into Southern California within the past few years, a large part of which consisted of pulmonary invalids and those of delicate health, who were unable to endure the rigors of the Eastern winter, has attracted and will continue to attract attention to the entire Southwest as to its fitness for invalids of those classes. The writings of Helen Hunt first attracted attention to Colorado as a health resort, and in like manner those of Nordhoff on Semi-tropical California, brought the notice of the afflicted to that delightful corner of the earth. Southern California is unfortunate in not having shown as yet that her resources are equal to the claims of her eulogists in many particulars. The unlimited advertising of the many fancied but some undoubted advantages of climate brought about a rush of people that raised the ideas of the resident with the price of the land to a height that the excitement, as far as merit is concerned, can be compared only to the "Dutch Tulip" craze of other times. Both Colorado and Southern California have gained wonderfully in population—and in all the years that this migration has been going on a vast territory lying between the two states, possessing the advantages of both, with the drawbacks of neither, has been neglected. All the attributes that make up the health-giving climate claimed by both exist here without the snowy cold of the winter or the dewy damp chilliness of the same season of the other. With these advantages why have its merits failed to attract a greater amount of attention? The causes are many, but the principal ones are stated easily. Marked on the maps for many years as a portion of the now mythical Great American Desert, and afflicted by the presence of a mass of hostile Indians who were prepared to pillage the early comers by the generosity of an indif-

ferent government, sustained by a horde of egotistical, puritanical philanthropists, the wonder is, not that it has not risen to prominence ere this, but that it has any inhabitants at all. Nothing but indubtable merit could have been the cause of its steady progress and present prosperity. The mineral wealth equalling, if not surpassing that of Colorado; its adaption for fruit and grain growing, exceeding those of Southern California, are subjects which I am not called upon to touch. My province is to discuss the sanitary aspects of the area referred to and to demonstrate its manifest superiority as a great sanitarium. In doing this I shall confine myself more particularly to its advantages for pulmonary invalids; that mass of unfortunates whose search for health becomes pitiful in its sad and unvarying unsuccess.

The general trend of modern medical opinion is strongly in favor of dry and cool or cold, as opposed to moist and warm climates and soil for consumptives, be the form of the disease what it may. The investigations of the most eminent authorities in this disease have shown distinctly the benefits of a dry over a moist climate. Dryness then is the primary requisite of an ideal climate for consumptives. Next in the opinion of many is altitude. And last, but not least, are sunshine and a bracing temperature. The foregoing make up the desired climatic essentials. With dryness of atmosphere is associated necessarily aridity of the soil. With elevation is purity and rarefaction of the atmosphere and the concomitant cool, exciting temperature that exercises the most beneficial effects in the climatic treatment of phthisis. The effectiveness of a cold climate lies mainly in its bracing effects upon the general system and excitation of the nervous system, stimulating the latter so that exercise becomes a necessity, thus accomplishing that most desirable result in the valetudinarian, metamorphosis of tissue with augmented oxidation and increased powers of nutrition. Admitting that the essentials of a climate for consumptives are dryness of soil and atmosphere with or without altitude, according to the case, combined with a maximum of sunshine and a cool temperature, let us see how far the climate of Arizona conforms to those requirements. Arizona extends from about the 31st parallel of north latitude to about the 37th, and from the 32d of longitude to near the 38th. It contains 112,922 square miles. There is no

large body of water in or near enough to affect the humidity to any great extent. The physical characteristics are those of almost any mountainous country. The great cordilleras of the continent, out of which rise streams of varying size that find their way to the sea, pass through it, while the monotony of a table land country is diversified by the majestic massiveness of the sierras that divide the surface and give desirable places of residences for invalids at all elevations from sea level to considerable heights, in open valleys, sheltered mesas or secluded nooks. There is without exception the driest atmosphere and soil of any section of the United States. There is more constant sunshine. So continuous is this that Arizona has been known for many years as the land of sunshine and silver. And these requisites can be found at all altitudes varying from about sea level to 12,000 feet. Thus can be had in Arizona the purest and most aseptic atmosphere; the most agreeable temperatures with the greatest amount of sunshine at all elevations, permitting and inciting to the extreme amount of open air exercise suited to the individual case during the entire year. The temperature is not equable, to the aridity and rarefaction of the air; but evenness of temperature is not a desirable thing in incipient phthisis. In the southern part of Arizona one can live out every day of the entire year at all altitudes of 6,000 feet and under. There is scarcely a day from the first of October to the first of July that one is confined to the house by stormy weather. In the months of July, August and September, is the rainy season, at which time there is rain, with thunder and lightning usually every afternoon and evening. Snow seldom falls save 6,000 feet, and then only in the mountains. In the Central and Northern portion of the Territory the winters are colder, but still many degrees warmer than Colorado.

If dryness, with a moderate temperature at approximate sea level is desired, Yuma, on the Colorado river, is available, if elevations from 500 to 2,500 feet, with the same atmospheric conditions, they can be found about Phoenix and Tucson. Still more elevation, 6,000 to 7,000 feet, with a lower temperature, is to be had in Central and Northern Arizona about Prescott, a delightful mountain town, the Capital of the Territory, and picturesquely located. Warmer, with the same elevations and less, is the south-

ern part of the Territory, in which are Tombstone and Nogales. Winds are common in the months of April and May, but are dry and warm. The discomfort they cause is from dust, which can be avoided by remaining indoors.

The entire fall and winter, save on exceptional occasions, an invalid able to walk can be out without any wraps or extra clothing from 9 A. M. or earlier, to 4 P. M. or later, according to the month. After sunset, owing to the dryness, and if at any altitude rarefaction of the air, the radiation is rapid and the nights are cold. With a residence of twelve years in Arizona in different parts of the section, never have I seen a case of consumption originate here. All I have seen have been imported. Acute bronchitis troubles are less common than in moister climates. Valvular lesions of the heart are benefitted decidedly by residence here at altitudes of 4,000 to 6,000 feet. Heart action is better and compensation continues perfect. Catarrhal troubles contracted in humid climates are relieved. Bright's disease and other organic affections of the kidneys are ameliorated very much. In the months of July and August the less elevated portions of the Territory, 2,500 feet and under, are very hot, but can be avoided by going to the mountains, or to the sea by Los Angeles, which is from fifteen to twenty-four hours ride away. Owing to the extreme dryness of the air the heat of 110 to 120 degrees in the heated sections of the Territory is not felt as much as a temperature of 80 or 85° in eastern and humid climates. Sunstroke is unknown absolutely in this dry southwestern country. The sun burns, but does not enervate, and the heat is oppressive in these localities preceding a storm only. On the mesas and in the mountains the nights are always cool and pleasant.

In addition to the foregoing admirable climatic qualities, Arizona has the grandest scenery on the face of the earth, as well as some of the most picturesque. Most sublime of all is that magnificent example of earth sculpture known as the Grand Canyon of the Colorado—a natural bridge dwarfing into insignificance that of Virginia, and a very interesting and curious district called Fossil Creek, are among the more commonplace spectacles. The most interesting scenery is in the northern part of the Territory. The vast open mesas and elevated valleys of the south, while advantageous for transit, do not present an attractive prospect to the weary

traveler, owing to the peculiar type of vegetation that covers them. The unique and interesting character of the flora can be seen only by closer investigation than railway travel permits. The great lack in Arizona is hotels. Yuma, Prescott, Tucson, Phoenix, Tombstone and Nogales, are well supplied, but more are needed at mountain stations and near the various hot springs that are in different parts of the Territory.

The foregoing brief sketch of Arizona from a sanitary point of view demonstrates, I think, that she has an ideal climate for the climatic treatment of phthisis that is not obtainable elsewhere.

GEORGE E. GOODFELLOW.

## SCHOOLS.

FOR a young community Arizona has an excellent school system. The pioneers of the Territory have from the commencement shown a commendable disposition in educational matters. The common schools are under the direct supervision of a Territorial Superintendent and a Board of Education, consisting of the Superintendent of Public Instruction, the Governor and Territorial Treasurer. This Board meets annually, and oftener if occasion demands. Their duties are to adopt such rules and regulations, consistent with the laws of the Territory, as will promote the advancement of the public schools, to prescribe and enforce the use of a uniform system of text books, to adopt a catalogue of books for the school libraries, and to issue and revoke Territorial certificates to teachers.

In every county of the Territory the Probate Judge is *ex officio* Superintendent of Public Instruction and is required by law to enforce the rules, the course of study and the text books adopted by the Territorial Board of Education. He is the Chairman of the Board of Examiners, consisting of himself and two other competent persons, selected by the Superintendent of Public Instruction, before whom, every three months, any person of good, moral character may appear, and, after passing a satisfactory examination, receive a teacher's certificate.

Every county is organized into school districts. Annually elections are held in each district to select three persons, either male

or female, to act as school trustees for the ensuing year, who manage and control the public schools within the district. At these elections women, tax payers and heads of families are allowed to vote. In many of the districts women are chosen as trustees, and experience has demonstrated that females, as such officers, discharge their duties with more fidelity to the public interest than do their male colleagues, taking a greater interest in the general welfare of the schools under their supervision.

Arizona expends more money per capita upon its public schools than any State or Territory in the Union. Its laws are liberal, intended to extend school privileges to the most sparsely settled communities. The minimum number of children of school age required for a school is but five, and the number of days constituting a school year are two hundred.

In the public schools nothing of a sectarian nature is permitted to be taught. Instruction in the English language is given in reading, writing, arithmetic, geography and grammar, also, in the history of the United States, physiology, industrial drawing, book-keeping, algebra, geometry, and such foreign language, as the Board of Territorial Instruction may prescribe, provided they do not interfere with the course of instruction in the English branches as above enumerated.

Arizona has invested in school property about a quarter of a million of dollars. The last school census gave of children between the ages of six and eighteen, 10,303. The number enrolled in the public schools was 6,617. The number of teachers were, males, 72, females, 113. Of primary schools there were 162, and grammar schools, 21.

The following table shows the progress made in public school matters in Southeastern Arizona for the school year ending June 30, 1888:

County	No. Schools.	Entire Expenses.	Entire Receipts.	Val. School Prop'ty
Gila.....	9	\$ 4329 41	\$ 4889 20	\$ 2997 00
Cochise... ..	22	18412 10	20808 48	12010 00
Graham... ..	16	10960 91	14098 97	8080 00
Pima.....	23	21002 24	26590 39	79982 85

## STOCK RAISING.

LIKE OTHER SECTIONS of Arizona, the Southeastern portion is well adapted to stock-raising. Over all the mountains and mesas the grass is abundant, and wherever water can be found in sufficient quantities for watering, large herds of cattle are to be seen. The native grasses are—the gramma, *galleta* and bunch grass. The gramma is the most nutritious, and beef fattened upon it, is very tender and juicy. Scarcely inferior to it, is the bunch grass that covers the mountain ranges. So far, stockmen have given but little attention to the cultivation of grass for their herds, but as the ranges are becoming more crowded each year, it will be but a short time until they will begin to plant alfalfa in order to fatten their herds for market.

Cattle raising here, as in all new countries, precedes agricultural development. The profits, thus far, attending the business are so great and secure, the expense so small and the risks so light, that it is not surprising that in almost every county in the Territory it is the leading industry. The drouths resulting from overcrowding of ranges, which has decimated the herds of Texas, and the blizzards and storms which have destroyed hundreds of thousands in Wyoming, Idaho, Montana and Washington Territories, are unknown in any portion of Arizona. Up to this time feed has been abundant the year round. Cattle graze summer and winter upon the range; when the grasses become dry they have all the nutritious qualities of hay; in times of scarcity, the browse upon the hills gives good pasturage.

Another and great advantage which the cattleman has here over those of other localities, is in the absolute freedom of his stock from all contagious diseases. Pluro pneumonia, splenic fevers and kindred diseases have never made their appearance in the Territory, and it is claimed by many that they can never have a foot-hold on account of the rarified atmosphere. But acting upon the maxim that "an ounce of prevention is worth a pound of cure," the Legislature of '87, at the request of the cattle associations of the different counties, enacted stringent sanitary laws against the importation from infected districts, which are rigidly

enforced by a board of Live Stock Sanitary Commissioners, selected by the cattle associations.

Many of the large fortunes in Arizona have been amassed in the cattle business. Nothing heretofore has given such speedy and certain returns. The expense after the first investment is nominal. One vaquero will take care of from two hundred to four hundred on the range. He is paid thirty dollars per month; during the spring and fall rodeos an extra man at the same wages is required. In many places cattle can be raised and marketed when three years old at a profit, for five dollars per head. The prices for three-year-old steers range from fifteen to twenty dollars. The increase is rapid; competent authority places it at about seven hundred per cent in five years; that is to say, that one starting with a hundred cows and five bulls upon a range sufficiently large to keep his increase, conceding that the natural laws relating to males and females apply which is not denied, at the end of five years will have upon his range over seven hundred head.

The climate and conditions in Southeastern Arizona are also favorable to the breeding of horses. The fine exercise upon the open ranges with the rarified atmosphere gives muscular development, lung power, courage and self-reliance to the animal, insuring bottom and staying qualities, equal to those of any other section. The characteristics of the Arizona horses are so well understood that within the past few years the government has made special efforts to secure as many as possible for the cavalry service. Some of the best of Kentucky stallions have been imported and it is only a few years until we shall begin to surprise the outside world with our fleet-footed coursers. The climate in many respects is the same as in Arabia, the home of the thoroughbred, which being the case, it seems natural that when blood and breeding shall tell its story we will rival Kentucky in the breeding of perfect specimens of the equine race.

There may be still some ranges for cattle and horses unoccupied in Southern Arizona, where a water supply can be developed, but to those desiring to enter the business of stock-raising the surest plan would be to purchase a range not fully stocked.

Last year there was cattle, horses, mules, sheep and land assessed as follows:

County.	Cattle.	Horses-Mules.	Sheep.	Land-Acres.
Pima county.....	94,734	5,327	725	247,902
Cochise ".....	73,294	2,298	1,500	56,253
Graham ".....	45,541	2,341	2,620	37,901
Gila ".....	19,084	1,684	13	3,058

It is a conceded fact that no more than half the cattle are assessed in Arizona.

## AGRICULTURAL DEVELOPMENTS.

THE PROGRESS of agricultural development in Southeastern Arizona has been most rapid during the past four years. All lands with but little exception requires irrigation to be made productive. The valleys formed by the detritus from the surrounding mountains are rich and fertile; when water is spread over them producing often times two crops of grain or vegetables during the season, and yielding abundantly when seeded to alfalfa or planted in fruit trees or grape vines. In the counties of Gila, Graham, Cochise and Pima, about five hundred thousand acres have been thus far reduced to cultivation, and in most of it, if not all, the flowing water has been appropriated for irrigation, but the work of reclamation, it may be truly said, has hardly begun. In some of the valleys, now covered with stock, the water lies within a few feet from the surface where, at light expense, it could be by pumping be made to irrigate large areas. The waterfall—both summer and winter, for in Arizona we have a dual rainy season, is very great in all the mountain ranges, running from twenty to thirty-five inches annually. The surplus water during the heavy storms is lost. How great this loss is to this region may be readily seen, when it is known that one-third of all the arable lands of India and Spain are cultivated by the preservation of the storm waters for purposes of irrigation. Natural basins and reservoirs are found in all these mountains where this can be done. The last congress made an appropriation for a survey of the arid region, and this survey will designate the proper places for reservoirs and canals, setting apart the land that can be reclaimed and

giving the cost of the construction of such works of public improvement. Major Powell is now in the field with his assistants, and by the time this pamphlet is printed, work will have commenced. The value of this survey to Arizona can hardly be computed. Through the information furnished by it, there is almost a certainty that in two to five years the arable land of Southeastern Arizona will be multiplied three or four times. From an official source, the estimates being made by the most accomplished engineers of the country, capitalists can determine the cost of every reservoir or canal, and know before hand the amount of land that can be reclaimed under them, and as investments of this kind are as safe as government bonds, in fact, paying steady returns, not for a day, but for all time, there is no reason to doubt that in a very short time all our waterfall will be stored and economically distributed, making homes to thousands of families and adding millions to the taxable wealth of the Territory. By water storage and pumping, it is safe to say, that 2,000,000 acres of land can be brought under cultivation in Southeastern Arizona, every fifty acres of which, on an average, would be a fortune to a family.

#### FARM AND ORCHARD PRODUCTS.

The yield of wheat is about twenty bushels to the acre and barley thirty. Alfalfa here, as in other portions of Arizona, is a most profitable crop, the yield is about six tons to the acre, and its value is from fifteen to twenty dollars per ton, according to locality. It is the most valuable of all cultivated grasses; all that is required when once seeded, is to irrigate it three or four times a year. As a food for domestic animals, it has no superior, an acre will graze two head of cattle or horses during the year, for milch cows it is most excellent, hogs fatten upon it and all domestic fowls thrive upon it. As hay, it has always a ready market at good prices. In almost all localities fruits and berries do well, as also do grapes. Deciduous fruits of all kinds, apricots, pears, plums, apples, peaches, nectarines, strawberries, blackberries and all kindred fruits are grown to great perfection. In the higher altitudes these fruits ripen later than in and around Tucson, but the quality of the fruit is unsurpassed. An orchard of four years' old bears an average of three hundred pounds to the tree, which is

worth from four to five cents per pound; in the gardens about Tucson, almonds and olives have been planted, but it is too early yet to say what will be the result of the endeavor to raise this fruit. Grapes of all varieties grow remarkably well, and it is quite certain that the manufacture of wine and raisins will be one of the leading industries of the future. Horticulture has not been followed heretofore to any great extent, but is now attracting more attention. Here, as in other portions of Arizona, an orchard or vineyard of twenty acres is a sure and certain fortune. Vegetables of all kinds are grown upon all the irrigable lands, no finer cabbages, celery, parsnips, Irish and sweet potatoes, carrots and other root vegetables can be found than are grown in Southeastern Arizona. The soil for the most part is a rich alluvial, in depth from eight to ten feet and inexhaustible in its durable fertility. Portions of the Santa Cruz valley have been cultivated for two centuries, a part of the time bearing two crops annually with no apparent loss in its productive capacity.

### BUSINESS, WAGES, ETC.

NO MAN should come to Arizona expecting to take up a farm and improve the same without some capital. He will require, even if he homesteads his land, some money to get water upon it, clear it of brush and cacti, dig his laterals and plant his crop. Water will involve an outlay of from eight to ten dollars per acre. The clearing, fencing and planting in alfalfa and grain—alfalfa is always sown with barley, will cost about seven dollars per acre, but the return from this crop is almost immediate—in any portion of Southeastern Arizona, alfalfa the first year will give a return of twenty dollars per acre net. Fruit trees will cost, including interest for two years before they begin to bear, ninety dollars per acre, after that time the returns will be large. The same is true of grapes. It takes a vineyard three years before it makes any returns, and the cost is about seventy dollars per acre. All kinds of merchandise are sold at liberal profits, and merchants in all branches of trade, as a rule, do well. Dairying is a good business. Butter sells readily at from fifty to seventy-five cents per pound,

while no cheese is made in the Territory. A poultry farm pays well, chickens are worth from six to eight dollars per dozen, eggs from fifty to seventy-five cents per dozen, and turkeys dressed, twenty-five cents per pound. Skilled mechanics are paid from \$3.50 to \$5 per day; miners \$3 per day; men on farms \$25 to \$30 per month, and female domestics, of which there is a great scarcity, the same as farm hands. Good board can be had in any of the towns at from \$5 to \$6 per week; house rent in the towns ranges from \$20 to \$40 per month, family supplies—meats, vegetables, etc., are not dear, varying in price according to the locality.

The Southern Pacific runs through the counties of Cochise and Pima in Southeastern Arizona, from which Gila and Graham counties can be reached.

## PIMA COUNTY.

PIMA COUNTY is the oldest of the counties of Arizona. Pinal, Graham and Cochise counties were formerly a part of it. Its present area is about 10,500 square miles, which is greater than the States of New Hampshire and Rhode Island combined, and larger by 2,500 square miles than the commonwealth of Massachusetts.

The first settlements were made in Pima county by Europeans more than two centuries ago and, up to the year 1864, it held all the whites of Arizona. The Southwestern portion of the county, lying north of the Sonora line, has not been fully explored, its topography is a succession of sun-parched plains, covered with isolated peaks and detached mountain spurs rising everywhere over its surface. Mines of gold, silver and copper have been discovered in this section, but the scarcity of water forbids its occupation at present. This difficulty will only be obviated when the tide of population flowing westward overcomes the physical barriers of nature and develops its great natural wealth. The Quijotoa mines are in the Quijotoa mountains of this desert region, they have yielded a large amount of silver and are still being extensively worked, employing one hundred men. The water for their mill and mining machinery is pumped from a well 400 feet deep.

The country surrounding Tucson to the north, south and east, is one of the most inviting to be found in the west, and when its resources are fully developed, will prove one of the wealthiest sections in the Territory, capable of supporting a dense population; through all this region nature has laid side by side rich mineral and agricultural resources which American enterprise and energy will, in a short time, bring to the highest state of productiveness. The mines of the Santa Rita, Santa Catalina, Ostosco, and Patagonia mountains; hitherto hardly prospected, will add millions to the billion output of Arizona; the forests hardly touched by the woodman's axe will supply millions of feet of merchantable lumber; the Santa Cruz, Rillito and other valleys will become a garden of blushing vines and ripening fruit, where civilization can rest content in the fruition of its perfect work.

The precipitation in the mountains is from 25 to 35 inches annually, which, by storage basins or reservoirs, can be made to reclaim large areas of land. Through the northeast corner of the county flows the San Pedro river, the valley is narrow, and its waters are utilized to irrigate about 6,000 acres cultivated in grain and fruit. On the northern slope of the Santa Rita mountains heads a cienega that runs into Rillito creek near Fort Lowell. On the Empire, Cottonwood and Sanford ranches, toward the head of this cienega, several thousand acres of land is under cultivation, and about 20,000 acres can be reclaimed. Near Pantano, a station on the Southern Pacific railroad, at the old cienega, is a natural place for a reservoir, where at the comparatively small cost of \$75,000 a dam could be constructed that would impound water sufficient to irrigate 100,000 acres. In Gardner's canyon, above Apache Springs, a reservoir can be built at small cost that would reclaim 20,000 acres.

The San Rafael de la Zanja claim, owned by the Camerons, lies in the southeast corner of the county. It is a four-league grant, well watered, and contains a large amount of fine arable and grazing land. The valley between the Patagonia and Huachuca mountains is equal to the best grazing land in the Territory, much of which can be cultivated without irrigation. Fine potatoes and other vegetables are grown here. The Igo

orchard and springs on the western slope of the Huachuca mountains, shows what can be done in the way of fruit growing in this section, no better grown or flavored apples, peaches and pears, can be found anywhere. On the Turkey and Sycamore creeks are also fine bodies of fruit and vegetable lands.

The Santa Cruz river rises on the "San Rafael de la Zanja" claim; runs south into Sonora and again entering into Arizona in Pima county on parallel  $31^{\circ} 10'$  and longitude  $110^{\circ} 50'$  flowing due north 90 miles past the towns of Calabazas, Tubac and the Mission San Xavier del Bac to a few miles beyond Tucson, where it sinks and is supposed to empty an underground stream into the Gila near the town of Florence, in Pinal county. A portion of the lands along this river have been cultivated for more than two hundred years, growing two crops annually without apparently impairing its productive fertility. Cereals, alfalfa and all deciduous fruits give rich returns in this valley. The southern portion of the valley is covered by Spanish grants, but there is still a large quantity of public land which will be made available for settlement in a short time.

A half mile north of Tubac, on the east side of the Santa Cruz river, the Santa Cruz Land and Water Company are taking out a canal with a capacity of 500 cubic feet per second equal to a flow of 20,000 miner's inches, which will reclaim 60,000 acres of land. This the company propose to increase by impounding the storm flood, surplus water flowing from both sides of the Santa Ritas, to 200,000 acres.

Northeast of Tucson, on the west side of Fort Lowell reservation, the Santa Catalina Land and Irrigation Company are taking water from the Billito creek, which will be spread over some 15,000 acres of fertile land. These lands are unsurpassed for fruits or vegetables, cereals or alfalfa; 50 acres well improved is a fortune, giving a return of at least \$100 per acre every year. In the valley of the Baboquivara, lying between the Sierrita, Sierra Colorado, Gila and Arivaca mountains, is a magnificent body of land. This valley is sixty miles long and twenty miles wide. Reservoirs, catchments and canals for the impounding and conveying of water are under construction that will reclaim 20,000 acres. By the same methods it is computed that this quantity can be

doubled. West to the Quijotoa mountains the soil is rich and fertile, well adapted to the growth of citrus fruits, and it is possible that some of it may be reclaimed by pumping. At present it is used only for grazing. West of the Quijotoa range the land is fertile, but on account of aridity is unoccupied. The arable lands of Pima county are for the most part from 2,500 to 4,000 feet above sea level. The soil is inexhaustible in its durable fertility, the air pure and invigorating, the climate perfection. Under such conditions it seems hardly possible that immigration thither will be much longer delayed.

Seventeen miles east of Tucson, in one of the most attractive spots in the lower hills of the Catalinas are the Agua Caliente or Warm Springs, whose waters are recommended for all rheumatic complaints. A fine orchard is planted near these springs, and when accommodations are made for visitors they will become a resort for both invalids and pleasure seekers.

In the Santa Catalina, Santa Rita, Rincon and Huachuca mountains is timber enough to supply this part of the Territory for many years to come. Pine, frequently 150 feet high and six feet in diameter, spruce and juniper, cover the higher ranges. On the Catalinas are also found the red elm, sugar maple and fir. In the lower cañons, sycamore, ash, black walnut and oak is abundant. In the mountain parks are wild strawberries and raspberries, a sure indication that these luscious berries can be cultivated with little trouble. Game is also plentiful in all this mountain region; the sportsman can find deer, bear and wild turkey in abundance, and if so inclined can sweeten his bread around the camp fire with wild honey.

#### PRINCIPAL TOWNS.

Tucson, the county seat of Pima county, is the oldest town in Arizona, if not in the United States. The origin of the place is not decided; its early history is obscure. Coronado's reports of his expeditions to "The Seven Cities of Cibola," in 1540-43, do not mention the Santa Cruz valley as being inhabited. Colonel Hodge, in "Arizona as it is," claims that it was settled first in 1560; which, with the single exception of Santa Fe, settled in 1555, would make it the oldest city in the Union. About the

year 1825 it had 140 houses, and large quantities of grapes, peaches, pomegranates, quinces, apples and apricots were grown in the valley west of the town.

Bartlett, in his "Personal Narrative," published after the Mexican war, but prior to the Gadsden purchase, states that "Tucson has always been, and is to this day, a presidio or garrison, but for which the place could not be sustained. In its best days it boasted a population of a thousand souls, now diminished to about one-third that number \* \* \* \* \*

The lands near Tucson are very rich, and were once extensively cultivated, but the encroachments of the Apaches compelled the people to abandon their ranches and seek safety within the town. The miserable population, confined to such narrow limits, barely gains a subsistence, and could not exist a year but for the protection from the troops. More than once the town has been invested by from one to two thousand Indians, and attempts made to take it, thus far without success."

On February 28th, 1856, Solomon Warner opened the first American store in Tucson with thirteen pack animals loaded with merchandise, and ten days after the presidio was turned over to the United States under the Gadsden purchase. In 1866 several mercantile houses brought large stocks to Tucson; building and improving became general, substantial houses replacing the old ones. The sisters of St. Joseph opened a girl's school. To ex-Gov. Safford, however, belongs the honor of inaugurating the first public school in the year 1871. The Southern Pacific railroad found Tucson, in 1879, with a population mostly Spanish or Mexicans. Since then Americans have settled in such numbers that they hold the preponderance. The town has a population of 7,000, and the American portion is filled with large stocks of merchandise, many elegant private residences, solid blocks of brick, and is altogether as attractive as any place in the west. It is quiet and orderly; the religious and benevolent societies are well represented. It has a free library, city hall, court house, opera house and public school buildings that would do credit to a more pretentious city. Its restaurants and hotels are numerous and well ordered, living is cheap; good substantial board can be had at from \$5 to \$7 per

week. The U. S. Land Office for the Southern District of Arizona is located here, as is also the offices of the surveyor general and marshal of the Territory. Near Tucson is the United States Indian school. About a mile from its business center the Territory has forty acres of land for a university. The first building of which, designed for a school of mines, is near completion and will, when finished, be a credit to the regents and to those under whose immediate supervision it has been constructed—the Hon. C. M. Strauss, Superintendent of Public Instruction, and Capt. Miltimore, of the U. S. army, who has acted as supervising architect. The main building is 92x104 feet on the outer walls, with two wings—50x38 each. The basement story is 12 feet high, of gray sienite stone, the second story 17 feet high of brick, the building has a double roof extending over a balcony 12 feet wide surrounding it, thus making it cool in summer, and warm in winter. The basement will be used as a laboratory, well supplied with all the paraphernalia for testing ores, the upper story will be used as class rooms. The advantage of such a school in such a locality is obvious when it is considered that within a radius of twenty miles from Tucson are numerous mines where students can study minerals in natural ledges. Much of the material used in the building is of Arizona production. The bricks were made, the lime burned and the stone quarried in the neighborhood of Tucson. Near the town is a large quarry of this building stone, which is both durable and handsome; it will be a source of profit in the future to its discoverers and owners. There is organized at Tucson a corporation with \$36,000 cash to tan leather by a patent process, using an Arizona herb heretofore unknown. The *Citizen* and *Star*, both well conducted dailies, and the *Fronterizo*, a good Spanish weekly paper, are printed here. There is also a smelting plant for the reduction of ores, which has passed under the control of parties owning the Pueblo Smelting works, in Colorado. These industries will add greatly to the prosperity of the place.

Tucson is, and for twenty years has been an important commercial point, its merchants do a large business with Sonora, Mexico, besides distributing large quantities of merchandise to other points in the Territory. Its climate is of wide range. In winter there is

occasional frost at night followed by comfortably warm days. The summer days are hot but the nights cool enough to make comfortable sleeping. It has an advantage in summer, in that the resident by traveling in a direct line for fifteen miles can find himself in the Santa Catalina mountains, where a most delightful and invigorating climate awaits him. Though the thermometer in mid-summer may climb to  $110^{\circ}$ , yet so dry and pure is the atmosphere that one hardly feels the heat as oppressive. It is one of the best spots on the continent for those afflicted with pulmonary complaints, and in common with other portions of Arizona, will become a sanitarium for sufferers from lung diseases. The scenery of Tucson is cheerful and enlivening. Here the wonderful effects of the rarified atmosphere are seen at their best. The great plain in which, just above this place, the Santa Cruz sinks, is spread out for nearly a hundred miles in a northerly direction. Looking northwest the eye rests upon the blue outlines of mountains seventy-five miles away. "To the east and west," says Hintou, "may be seen the bold cones of the Picacho and Desert Peaks, they stand out in the translucent sky and the luminous sunrise or sunset with their wonderful combination of colors, so vivid and startling as to defy even the brush of Turner himself, as if one might walk over between breakfast and the gray gloaming that indicates that the night has passed. Nearer and closer their serrated summits seem about to bow down to you; on the east, trending from the northwest to the southeast, is a bold and remarkably well defined mountain range, known as the Santa Catalina, which sweeps in bold semi-circle, framing the Santa Cruz valley in a massive way. The range lowers and a pass opens just to the east of Tucson. The continuing portion of the range is sometimes called the Rincon mountains. It looks wonderful and fascinatingly beautiful. The deep shadows and purple tones in which the sunset clothes its sides, while the mirage which accompanies sunrise and sunset in this latitude and plays such fantastic tricks to startle our vision with, gave to our summit lines and peak tops new and shifting images and forms." Such is the landscape surrounding Tucson, which, like an unpolished jewel, sits in front of emerald fields that have been in continued cultivation for two hundred years, ante-

dating the landing of the Pilgrims at Plymouth Rock, or of that other fateful cargo upon the banks of the James river. About the time Charles I. paid, with his head, the penalty of kingly follies, and Louis XIV., the grand monarch, ruled in France, the Spanish soldier established here his fort and the Spanish priest erected houses dedicated to the only living and true God, and with the cross in one hand and the sword in the other, entered upon the task of converting the savage tribes to christianity.

Nine miles from Tucson is the old mission San Xavier del Bac, commenced in 1768 and completed thirty years later. Space forbids an extended notice of this old relic of the past, a link carrying us back to the semi-Indian Spanish civilization of a century ago. Its architecture, a rude mingling of the Moorish and Byzantine, together with the interior decorations, including frescoed ceilings and paintings, are well worthy of inspection by the tourist.

The next town of importance to Tucson, in Pima county, is Nogales, situated amid rolling hills covered with walnut trees, where the New Mexico & Arizona railroad crosses the line into Sonora. It is well located in the midst of a fine pastoral and mineral country, and enjoys a large and lucrative trade with our sister Republic. Nogales has a population of some 2,000, is a bustling, busy, thriving place, where the civilizations of America and Mexico, so widely divergent, meet, and standing ac e to face, salute each other. Its location makes it quite a commercial center, and it will grow as the trade between Arizona and Sonora increases. It is well supplied with stores, hotels and saloons. Two weekly papers are printed here, the *Heratd* and *Record*. Tubac, Calabazas, Quijotoa, Arivaca and Harshaw, in Pima county, are towns with populations of from 100 to 400.



## COCHISE COUNTY.

COCHISE COUNTY was formed from the eastern portion of Pinal county in 1881, and although it is among the smallest, yet it is one of the most populous and wealthy counties in the Territory. It has an area of 5,925 square miles and is bounded on the west by Pima county, on the south by the State of Sonora, Mexico, and on the east by the Territory of New Mexico and on the north by Graham county. Its topography consists of high rolling plains and elevated mountain ranges. The Sulphur Springs valley runs north and south, nearly through the center of the county; on the west side of this valley are the Huachuca, Rincon, Whetstone, Mule Pass and Dragoon Mountains, on the east the Swishelm, Pedro Gosa and Chiricahua Mountains. The Huachuca Mountains in the southwestern corner of the county, has an average elevation of about 6,000 feet above sea level, Fort Huachuca, is located in about the center of the range. There is an abundance of water; springs in all directions, and the soil is well adapted to the growth of grain, vegetables and fruits of which there is a large quantity raised. The Huachucas are well wooded, the principal growth being oak, pine and fir. Continuing north are the Whetstones, on the west side of which is a magnificent grassy plain well studded with oaks, which makes it a most desirable range for cattle. In the Rincon mountains in the northwest corner of the county, there is good timber, good grass, an abundance of water and a small amount of agricultural land. To the east of these ranges and flowing northwesterly from the Mexican line, nearly a hundred miles to where it crosses the line into Pima county is the San Pedro River and the San Pedro valley, on both sides of the river for almost its entire length the land is susceptible of cultivation--seventy-five thousand acres are under cultivation along the stream, which can be readily increased to two hundred thousand. The soil is rich and produces abundantly, good crops of wheat, corn and barley are grown, fine fruits and quantities of alfalfa, some 30,000 acres being seeded in this nutritious grass which yields an average of about six tons to the acre. Some of the lands about Tres Alamos on this river have been under cultivation for more

than sixty years as also near Fairbank, where was stationed a Mexican garrison, at the time the country was ceded to the United States, under the Gadsden purchase; ruins of the old fort being still plainly visible. At different points in the valley the husbandman of today unearths the rude tools of his ancient predecessor. It was farmed and cultivated centuries ago, of which there is no records. At Saint David, about eight miles below Contention, on the line of the New Mexico and Arizona railroad is a Mormon colony of about 850 souls, who have in cultivation some five thousand acres, and although the acreage allotted to each family is small, being from ten to twenty, yet these thrifty people grow not alone sufficient for their wants but always have something to sell to their gentile neighbors. They have some of the best cattle and horses in the Territory, they are also on the east side of the river developing water from the Huachuacas, and thus extending their acreage. St. David has two schools and is altogether one of the most thrifty settlements in Arizona, everything about it wearing the appearance of comfort and content. The Galileo Mountains are well grassed, and watered. In this range is found a considerable quantity of timber, the Dregon or Southern extension of the Galileo range are a series of bold peaks filled with rocky canyons and grassy plots covered with low scrubby oaks, from which have been taken most of the wood to supply the running machinery and citizens of Tombstone for several years past, there is little arable land in these mountains, but good grazing. The Tombstone mines are located in the southwestern hills that skirt this range. In the Dregon Mountains is the famous stronghold of Cochise, the Apache chief, who gave his name to the county and which he held for years, defying every attempt of the pale face to capture it. The following pen picture of this place was printed in the San Francisco Morning Call twelve years ago. "One looks appalled at this pass as a strategical position, and cannot help thinking of the reckless bravery that must have characterized our countrymen who dared to track Cochise to his lair, and venture within range of his rifle. Every rock is a redoubt, every boulder a fortress, from behind which the murderous Apache could hurl defiantly his primitive means of destruction as well as the more modern one

learned from constant warfare with the whites, and from which at the least wavering sign on the part of the assailant he could at his chieftain's bidding dash out and ply the scalping knife to his heart's content. Layers of ascending rocks, still more precipitous and rugged, form a series of safer retreats in case of need, but we doubt if even they were used, save against inimical Indians, who may have fought the Apache in his own peculiar mode. A small and narrow passage, barely wide enough to pack a mule, winds its tortuous way through this second stronghold, and finally opens into a sort of basin surrounded by nobler peaks which bear a luxuriant vegetation. We found the trail impassable in many places, owing to the fact that it has not been travelled for years, and was consequently obstructed by brush and the projecting limbs of trees, but a passage was soon cut through by our Indian scouts, and we managed to squeeze through at the expense of some of our outer garments and an occasional refusal to proceed on the part of our mules. In this basin lies the bed of a creek, through which, in ordinary seasons, a lively stream must undoubtedly flow, but owing to the extraordinary drouth that has visited the Pacific coast during the past year, the creek was as dry as the travellers, and "with the same old story" muttered around, we gave our mules a spurring invitation to climb the mountain in front of us. Halting on the other side, we stopped in an immense rocky cavity, from which a beautiful view of the Sulphur Springs valley, below us, could be had through a sort of lunette about twenty feet wide. The rocks seemed to have been placed by a natural convulsion into an oval frame of the dimensions above given, through which the eye could gaze for miles around into the valleys, and from which undoubtedly the Apache videttes watched the Mexican trains on their way to the more Northern portion of the Territory. Our command tarried here quite awhile, so enchanting was the contrast between the craginess around us and the smooth undulation of the valley beyond."

The stronghold is changed since the above was written, the basin is now surrounded by a fence enclosing about five thousand acres of land, within which sits, walled in on every side, by rugged cliffs and mountain steeps, one of the handsomest residences in the

Territory, and herds of cattle graze were once fattened the Apache ponies.

Passing through the fortress of Cochise we enter the Sulphur Spring, the largest valley in Arizona, extending from the Mexican line to the line of Graham county north, it has a length in Cochise county of about ninety miles, with an average width of twenty-five miles, in all parts of which water can be found within twenty feet of the surface. The elevation is something over four thousand feet. In winter the thermometer may sink at times to ten or fifteen degrees above zero; but remarkably cool and invigorating are the breezes of summer that sweep this mountain plain. Ten years ago when the writer first saw it, it was an undulating plain covered, as far as the eye could reach, with luxuriant grass; during that year there was cut in the valley as high as two tons to the acre of gramma grass, and it has since supplied Cochise county with two thirds of its native hay. The stockman has entered it, and one hundred thousand head of cattle and horses grazing upon its nutritious grasses, keep down vegetation. The White river on its Southern border, takes its rise in the Pedro Gosa mountains, and circling round the Northern base of the Swisshelms sinks, but rises in a few miles and runs south into Sonora about twenty miles. Just above Soldiers' Holes, an old station on the old Butterfield overland stage road, and for many years the most dangerous point on that dangerous route, about twenty-five miles north of the Mexican line, the drainage is north, through what appears to be a subterranean river. From the Chiricahua mountains, Ash, Turkey, Bonita, Riggs and Pinery creeks run from five to twenty miles west and sink in the plain. To Mr. Sanderson, in this valley, was awarded the \$5,000 premium for the first flowing artesian well in the Territory, offered by the Legislature of '81, and paid that year. There are now in the valley forty artesian wells. At almost any point near the center of the valley water can be had in unlimited supply within six feet of the surface, and near the base of the mountains, on the east and west sides, within twenty feet. The water in many places rises to the surface. Except in the northern portion of the valley, occupied as a cattle ranch and known as Hooker's ranch, but little of the land has been cultivated; here, however, has been grown cereals and vegetables

in great perfection and abundance. The soil is rich in all parts of this valley, and there is every reason to believe that where water underlies the surface within a distance of three or four feet, irrigation is not necessary to the growth of grain or vegetables; indeed, this has been abundantly proven in other parts of Arizona. The Williamson valley, in Yavapai county, and lands upon the Zuni reservation, in Apache county, have under these conditions been found very productive. With a little irrigation until the grass is well rooted, which could be done by pumps at small expense, lands, where the water is within ten to twenty feet, could be cultivated successfully in alfalfa, which is always a profitable crop when once planted, yielding an income of at least twenty-five dollars per acre. Much of this land will be found well adapted to grapes and other deciduous fruits. The Sulphur Spring valley has all been surveyed, and is now subject to entry at the Tucson land office under the U. S. homestead and pre-emption laws. It is safe to say that in this valley alone there are one million of acres of land that can, at small expense on the part of the settler, be made productive.

The old Indian trail from the San Carlos reservation to the Sierra Madres, in Mexico, lies along the western slope of the Chiricahua mountains, and to this section the presence of the renegades on the reservation was a constant menace; since their removal from the Territory, it is rapidly filling up, ninety-five per cent of the settlement, having been made within the last two years, now there are many fine orchards, gardens and fields, scattered along base of these mountains, and in the heart of this range are found many valleys and parks that are being converted into happy homes. This range has also a great source of wealth in its magnificent pineries, from which have already been taken fifty millions of feet of merchantable lumber without appreciable effect upon the supply. It having been cut so far from along the canyons into which roads could be easily built, leaving undisturbed the greater timber belt that crowns the more elevated portions of the range. On the east side of the Chiricahuas, is the San Simon, a valley presenting many attractions to the settler. Along the creeks flowing from the eastern sides of the mountains are some good lands that can be reclaimed, and it is possible that by reservoirs in these

mountains, which the geological survey will speedily determine, quite a large area of land can be reclaimed. Water in this valley is from twenty to forty feet of the surface, which could be utilized by pumping to irrigate gardens, orchards and vineyards, for which the soil is most admirably adapted. The valley is well grassed and filled with stock. This finishes our review of the agricultural resources of Cochise county, and it can be truly said that no portion of Arizona has a brighter future before it in this particular. The great drawback to its prosperity has been the deviltry of the Indians, hardly a mile of its wide domain that has not been watered by the blood of the pioneer settler and prospector, victims to the merciless Apache. These are happily removed. Law and order is supreme. The rights of all respected and protected, and it will be but a short time until her plains and mountain vales now echoing the sounds of the lowing herds will smile in a more permanent prosperity, that which causes fields to harvest and fruits to ripen under the application of the plow, the harrow and pruning knife.

In addition to the bonanzas that have been uncovered at Tombstone, rich mines of gold and silver have been found in Galeysville and Dos Cabezas, in the Chiricahua's, in the Swiss-helm's and Huachuca mountains, some of which are being worked at a profit. The starting of reduction works at Tucson will greatly reduce the cost of transportation on ores in this section and give new life to the mining industry of old Cochise.

#### TOMBSTONE.

It was dangerous travelling in the spring of 1878 when Ed Schieffelin with his sole earthly possessions strapped on the outside of a fifty-dollar mule, was enquired of by an acquaintance where he was bound, and received the reply, "I am going up near the base of the Whetstone's to find a mine." "Yes," said his friend, "you will find a tombstone." Nothing daunted by the fact that Indians held almost exclusive control over the country the indefatigable prospector made his trip and discovered what since has been known as the District of Tombstone. He carried with him samples of rock to Signal, Mohave county, where it was assayed by Richard Gird, who, having a little money, bought a team, loaded it with provisions and with Ed and Al Schieffelin returned. The

three located what was afterwards known as the Tombstone group of mines, while at work, Hawk Williams and Boyle came along and agreed with the Schieffelin party to divide whatever locations they made, they, or rather Gird, doing their assaying. Williams and partner located the Contention and Grand Central mines, the former for Schieffelin and partners, which they sold shortly after to a San Francisco company, represented by Josiah H. White and W. C. Parsons, for \$9,500. The Grand Central was also sold and passed under the control of Chicago parties, represented by E. B. Gage. These mines — the Tombstone group, the Contention and Grand Central have declared dividends aggregating more than \$6,000,000. As soon as the strike was known, there was a rush of prospectors from all quarters to the new district, and something over three thousand mining locations were made before the spring of '79. A town sprung up, as if by magic, which by the fall of '80 had a population of 6,000, more than three thousand miners being employed in the district. For a few years up to '83, it was a booming camp, when water being struck in the deeper workings, the erection of costly pumping machinery was provided in the following year by the Contention and Grand Central companies. A fire in '85 burned the works of the Grand Central company, that had cost a quarter of a million dollars. They have not been rebuilt, the company contenting itself by working other claims which have given them rich returns. Below the water line the ground has been sufficiently prospected to prove the existence of bodies of rich ore, and it will be only a short time until deep mining is resumed. The present bullion output of the camp is about \$100,000 per month. The town of Tombstone is beautifully located on a level mesa, with an elevation of about 4,500 feet above sea level. Contention and Ajax hills rising above the town for several hundred feet obstruct the southern view, to the east the serrated ridges of the Huachuca mountains appear. On the north and west apparently but a short walk, but ten miles away at the nearest point, are the rugged outlines of the Dragoon mountains, and rising above these, seventy-five miles distant, on the north and west the Chiricahua shades the skies with a deeper blue. The climate of Tombstone is good all the year around, in winter the nights are cold, the days bright and sunny; in summer there is

hardly any necessity for light apparel, the rights of summer demand the use of blankets for comfort, and the days are by no means hot. In no section of Arizona are the effects of the rarified atmosphere more beautifully expressed. The gorgeous sunsets are beyond description. The peculiar forms the surrounding mountains take on as the departing rays of the autumn sun, linger and play about their summits and the coloring of the sky fantastically traced in green, purple, crimson and gold, and its coloring, fashioned by nature's artist into visions resembling birds, animals and living things, then changing momentarily into churches, minarets and towns, is that which once seen can never be forgotten.

The present population is about 3,000. The *Epitaph* and *Prospector*, dailies, give all the news of town and country. It has a number of handsome private residences, a nice school house, court house and several churches. The water to supply the town is piped from the Huachuca mountains. It can boast of the best waterworks in the Territory. Good vegetables and fruits are grown near the town. There are several young orchards that bear well.

#### OTHER TOWNS.

Bisbee, in the Mule mountains, 28 miles south of Tombstone, is situated in a canyon. It has a population of 1,500, the mines and reduction works of the Copper Queen company are located here, the copper product of which is from thirty to forty tons per day. The property is owned by an English company, and is one of the few copper companies of the west that made a profit on their product when copper was down to 9½ and 10cts per pound.

Wilcox, on the S. P. R. R. in Sulphur Spring valley, is a substantial town. Its merchants have a large trade with the surrounding miners, cattlemen and ranchers, it is besides the distributing point for supplies to the government posts of Grant and Thomas. Some seventy-five teams are employed in this business. The *Stockman*, a weekly paper printed here, is a newsy and creditable sheet. It has a population of 1,000. The other towns of Cochise are Benson; Bowie, Dos Cabezas, Charleston and Fairbank, with populations of from 100 to 500.

## GRAHAM COUNTY.

GRAHAM, the youngest of the political sub-divisions of Arizona, was created in 1881. It has 6,485 square miles, a little more than one-fourth of which is included within the boundaries of the San Carlos Reservation, which extends over the northwest portion of the county. It is bounded on the west by Pinal and Gila counties, on the north by Gila and Yavapai counties, on the east by the Territory of New Mexico and on the south by Cochise county. Its principal mountain ranges are the Galiuro, Santa Teresa, Pinaleno, Gila, Peloncillo, Natanes, and Petahaya. The Salt River rising in the White mountains, sweeps along its northern border and the Gila entering the southeastern border from New Mexico, flows northwesterly through the county.

The Arivaypa valley, a continuation of the Sulphur Spring valley, lies between the Galiuro and Pinaleno ranges of mountains. It is about thirty miles long and eight miles wide, water is found in all parts of this valley within a few feet of the surface, and it may be classed good arable land. In the head of this valley the Arivaypa creek takes its rise and running northwesterly beyond Eagle Pass, forms the Arivaypa canyon, a deep and wild gorge cut through the mountains for twenty miles, where standing on either side are abrupt cliffs rising precipitiously above the bed of the stream from 400 to 1,000 feet. The Pinaleno range has an altitude of over 6,000 feet, is well wooded and grassed, at the base of Mount Graham, the highest peak—over 10,000 feet altitude, is Camp Grant. Crossing these mountains to the south of Camp Grant the San Simon valley is entered, which lies parallel with the Arivaypa valley, with the Peloncillo range on the northeast. The valley extends from the county line to near Solomonville about thirty miles with an average width of sixteen miles. The river Soux, an underground stream flows through this valley and empties into the Gila at Solomonville. It is most excellent grazing, but the water lies at too great a depth from the surface to be used for irrigation, what may be done in this direction by the storing of water in the surrounding mountains time, and the U. S. geological survey, must determine.

The Gila river enters the county from New Mexico near the town of Duncan, and circling around the Peloncillo range north-west and southwest runs northwesterly from Solomouville to the Fort Thomas military reservation, a distance of forty-one miles through the Pueblo Viejo valley, which has an average width of five miles, and for agriculture or horticulture is equal to the best land in the Territory. There is an abundance of water in the river to irrigate the whole valley, and the area of tillable land is being increased every year. It lies about 4,000 feet above sea level and grows the hardier varieties of fruits, such as cherries, plums, apples, peaches and grapes to great perfection; strawberries, currants, blackberries and small fruits also do well. Corn, wheat and other cereals yield from thirty to fifty bushels to the acre. Two crops are grown on the same land during the year. Vegetables of all kinds give a most generous return. Potatoes, which are large, solid and of fine flavor, yield from six to eight tons per acre. Alfalfa gives an average of seven tons to the acre and is worth \$8 per ton. The maximum heat in this valley is about 105° but there is not a night in summer that a blanket is not necessary for comfortable sleeping. There is not a spot in the west where the settler can find a better home. Here in a bracing, healthful climate, a fifty-acre farm cultivated in alfalfa, will give an annual profit of \$2,000, and more than double that amount in fruits or vegetables. The military posts of Thomas and Grant and the mining camp of Clifton gives a ready market for all the grain, vegetables and fruits grown here, while the stockmen are eager purchasers of the alfalfa hay. The ruins of former habitations scattered through the valley, indicate that in prehistoric times it gave life and sustenance to a dense population, that it is capable of doing so again there is no question. In and around Duncan is a fine agricultural country but limited in extent. The mountains of Graham county are covered with a growth of gramma and bunch grass that affords most excellent pasturage for stock; there are numberless spots where potatoes and root vegetables grow to perfection. The region of the San Francisco river a tributary of the Gila, near the line of New Mexico, has a fine growth of black walnuts, sycamore, ash, pine, juniper and other trees, the woods are filled with bear, deer and turkeys, and the

stream with fish. The upper part of the Rio Prieto and Bonito creek, also tributaries to the Gila, in the same vicinity, is a high, rough, rolling country with but little water, some of the mountains are crowned with cacti from twenty-five to fifty feet high, and four feet in diameter. The scenery is grand and imposing.

Dr. Rockrock, of the Wheeler exploration, in his report for 1876 standing on one of the lofty peaks of the White mountains and looking southward into what is now Graham county, thus describes the view:

"Standing on this elevated peak and looking over the surrounding region, one of the most striking views of the continent, is unfolded. Ridges run in all directions from this culminating point, and descend through a stretch of miles like so many radii in an immense circle. They start from a mountain mass of infinite grandeur, and dwindle out on the grassy flats from 2,000 to 4,000 feet below. Between them are well watered valleys, producing grass enough for all the herds of the Territory. Plains rich in all the glory a wealth of autumn-coloring could confer on their herbacious vegetation, belts of golden colored cottonwoods, deep and sombre forests of evergreens, contrasting, yet harmonizing, combined to complete this perfect landscape. The impress upon the mind of such a view is final, and can never be forgotten. Where the ridges proper end, the general slope of the country had been cut into canyons, each a tributary channel for carrying the torrent of water made by the melting snow to the main stream. Erosion could here be detected, illustrating to us the wonderful history of our western domain. The mesas thus left between the canyons were topped with the even present trachytic overflow. Water and fire each supplementing the other, had impressed the final features of the country."

Graham county is rapidly filling up, and with its great natural resources, will be the home of a large and prosperous community.

#### PRINCIPAL TOWNS.

Solomonville, the county seat, is situated on the Gila river at the lower end of the Pueblo Viejo valley. The location is a delightful one, surrounded on all sides by green fields and budding orchards. Graham peak lifts its lofty cone in the southwest, the

San Simon valley stretches a vast plain to the southeast and north and north west the serrated ridges of the Santa Teresa and Gila mountains stand like a border against the circling sky. It has a commodious court house, neat private residences, merchants with well selected stocks, who do a thriving business with the farmers and stockmen of the country. It has an air of business life indication of prosperity. The population is about 1,200. About eight miles north of Soionville is the Mormon town of Smithville, a most attractive place of 1,500 souls. To get a fair idea of what the Pueblo Viejo lands will do when cultivated to the full extent, one should visit this settlement.

Clifton, the largest town in the county, is built in a canyon. It is a mining town of 2,000 population; the Arizona Copper Company, a Scotch company, have their mines and furnaces here; the town has its supply of saloons and merchants, building for residences line the sides of the mountains. The population is largely Mexican and, like all mining towns, is cosmopolitan in character, filled with life, the active pushing life of a flourishing mining camp. The Clifton Clarion, a most excellent weekly paper is printed here.

## GILA COUNTY.

GILA, is the smallest county in Arizona, containing 3,400 square miles, more than half of which is within the San Carlos Reservation. It is bounded on the south by Graham and Pinal counties, on the east by Graham and Apache counties, on the north by Apache and Yavapai counties, on the west by Pinal and Maricopa counties. Within its borders are the Sierra Anchas, Mazatlan, Pinal and Apache mountains. It is well watered, the Gila river washes its southern boundary while the Salt river flows nearly through its center. Pinal and Pinto creeks flow into the Salt from the south, and Cherry, Raccoon, Sally May and Tonto creeks empty into it from the north. The Pinal mountains, in the southern portion of the county, have an average elevation above sea level of 7,000 feet, some of the highest peaks are over 10,000 feet. The other ranges are not so high but all are covered

with a fine growth of timber—pine, sycamore and spruce, and also a heavy growth of gramma and bunch grass. The snow falls to the depth of one to two feet in winter in these mountains. In some of the mountain valleys good crops of potatoes and other vegetables are raised without irrigation, and farming in the mountains could be extended largely, for there are many springs of perpetual water coming to the surface and mountain parks, where in the deep, fertile compost soil, not only vegetables, but winter wheat and black oats would grow to advantage.

Gila is one of the best mineral counties in the Territory, her mountains are seamed with ledges of gold, silver, lead and copper. Many millions of dollars have been taken from her mines in the last twelve years, which are still producing well, but the lack of railroad facilities—all supplies having to be delivered by wagon from Wilcox, on the S. P. railroad—retards the full development of her great mineral resources. The Lost Gulch country, extending from the Dripping Springs, in the southern part of the county, to the town of Globe, on Pinal Creek, is rich in gold, silver and galena. At the town of Globe is the Old Dominion copper mine, which has two forty-ton smelters and employs about 150 men. This company own large bodies of self-fluxing ore averaging from 15 to 16 per cent copper, and notwithstanding the low price of copper and the high transportation charges on their coke and copper product, have been able to work their mines at a profit. The property is well managed and is paying well at the present time. Besides the Old Dominion, in the same locality, are the Buffalo and Long Island copper claims, well developed and showing large bodies of rich ore, which will some day be worked to advantage. There is no better copper district in Arizona than that near Globe. Were it in Colorado, where railroads are built in all directions, one would soon be there to supply the coke and carry out the copper, and the reductions thus made in these important items would cause the erection of more smelters, the employment of 1,000 men and an output of twenty-five tons daily of block copper.

At the Richmond Basin the McMorris mine has yielded \$700,000 of silver and gold. In this Basin is the Nugget mine, from near the surface of which have been taken \$80,000 in silver nuggets. Chloriding has been extensively followed in the mountains of

Gila county, and several hundred miners are so employed to-day. If it were so that the rich, but rebellious ores, could be shipped out many properties would be worked that are now non-productive. At present to ship ores to Denver or Pueblo takes \$125 per ton to cover transportation and cost of mining and reduction. At San Carlos, in the southern end of the county, are large deposits of bituminous coal that cannot be worked, being on land set apart by a magnanimous government for Lo and his posterity forever. On this reservation are also rich gold and silver mines, that for the same reason cannot be utilized. As this portion of the reservation is in no sense an agricultural region, and as it embraces altogether 4400 square miles, which gives to every Indian thereon, without regard to age or sex, more than 1,000 acres each, and as cheap coal and coke is such an important factor in the prosperity, not only of Gila county, but of all Arizona, it does seem as though congress, had it any regard for the welfare of the white citizens of this territory, would heed the recommendations made by our governors for six or eight years past and reduce the boundaries of the San Carlos reservation a third, throwing its coal and mineral fields open to the prospector and the miner. If left to the Indians to open and develop, these coal and mineral fields will remain unproductive for a century to come.

There is in Gila a home market for all ranch, garden and orchard products at remunerative prices. Grapes and the hardier varieties of deciduous fruits have been tested and found to do well. A goodly number of orchards and vineyards are being planted. Tonto creek carries a large body of water; it forms along its course a valley about one mile wide and twenty-four miles long, all of which can be reclaimed by irrigation. The land is of the best. The Salt river forms a valley fifteen miles long and an average width on both sides of the stream of two miles, which can all be reduced to cultivation. Cherry creek runs in Gila county mostly through a cañon. There is, however, good valley land at the lower end of this stream. In all these valleys all kinds of cereals, alfalfa, vegetables, grapes, apples, pears, peaches, plums, cherries, blackberries, currants, raspberries and strawberries grow exceptionally well. The Greenback valley, lying along Green-

back creek, a tributary of Tonto creek, is small, but the land is rich and fertile. There is no better stock country than is to be found in Gila county; the grass is plentiful and nutritious; it is the stockraisers' paradise.

Globe City is situated on Pinal creek in a basin between the Apache and Pinal mountains 3500 feet above sea level. No more delightful climate can be found on the continent; the summers are cool and pleasant, the winter air dry, bracing and invigorating. It has an energetic population of about 1500, about a dozen mercantile establishments that carry well assorted stocks of merchandise, the usual number of saloons, hotels, blacksmith shops, etc., that go to make up a frontier town. Its buildings are of brick and wood. It has a large and commodious stone courthouse, and quite a number of handsome private residences are built upon the low hills near the business center. There is a bank, a public school and several churches. The Workmen, Odd Fellows and Masons have lodges here. The Globe Silver Belt, edited by Judge A. H. Hackney, a veteran journalist, who has passed his three-score years and ten, is published weekly, and does good service in calling the attention of the outside world to the resources of this county and section. The Mineral Belt railroad, which is built about 30 miles south from the town of Flagstaff, on the Atlantic and Pacific railroad, in Yavapai county, is expected to be run to Globe, and when completed will place Gila county in railroad connection with the outside world, which is all that is required to give permanent prosperity to this isolated region. With this road completed it is not too much to say that the forests of Gila would supply numerous sawmills, all its arable lands would be speedily made productive, mills, smelters and reduction works would be multiplied and that it would come to the front as one of the most prosperous counties of Arizona territory. In the meantime there is room in her arable valleys for several hundred farmers, who could raise good crops and reap rich returns for their time, labor and money invested. The agricultural lands of the county yield from 30 to 50 bushels of wheat or barley to the acre worth from \$1.20 to \$1.50 per bushel. Fruit sells at 10 cents per pound. Several thousand acres of land can be entered under the desert, pre-emption and homestead acts in Tonto and Salt River valleys. Improved lands are

worth from \$5 to \$50 per acre, according to value of improvements.

## CONCLUSION.

SOUTHEASTERN ARIZONA presents many opportunities for the man of capital. Money is loaned upon real and personal security at from one to one and a half per cent per month. Investments made in irrigating canal enterprises are certain, safe and sure, always bringing a large return. Such investments are not for a day, but for all time, they control the water supply and the lands require the water. It is true it is within the province of the legislature to regulate the charge for water, but it is not at all probable that such charges will ever be at a maximum that will not give handsome returns upon the capital required for their construction. There are also openings for canneries and other manufacturing pursuits that open a wide field for the employment of capital. Of professional men, lawyers, physicians, clerks or others looking for soft places, the territory has a good supply, and the success which will attend this class of immigrants is by no means certain. Much depends upon getting started right, and upon the talent and energy of the individual. Skilled mechanics, plasterers, masons and carpenters have a good field for their labor at good wages. Farm hands and industrious men or women willing and able to work have usually steady employment.

No man should come to Southeastern Arizona expecting to take up land and make money without labor or capital; the farmer or horticulturist should have one or two thousand dollars to commence with; even with a small farm it is better for him to have enough to stock and cultivate it. The cost of getting water on land is from eight to ten dollars per acre. Land under an irrigating canal costs usually from \$18 to \$25 per acre. To seed it in alfalfa or grain costs with the lateral ditches about \$6 per acre. The first year will pay this back with the cost of the land. In fruits or grapes the returns are from \$100 to \$200 per acre, but it requires an outlay of about \$100 on each acre and about three years before an orchard or vineyard begins to pay.

Here, as everywhere else, a man cannot surround himself with the comforts of a home without industry, patience and economy at the start, but once his fields or orchards are producing there is no country that presents a more easy road to fortune and independence. In fine, there is no place where nature holds out more inviting prospects to the sober, industrious homeseeker. The soil is rich and fertile; the climate all that can be desired; the opportunities for the acquisition of property such as are not found in any of the states east or west, north or south. The broad plains and productive valleys of this region will assuredly support a dense and prosperous community; nowhere can lands of such productiveness be found for the same outlay in time, money and labor.

Before settling elsewhere let the immigrant look over Southeastern Arizona and he will find the preceding pages do not tell by half what might be written in its favor.



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