(From The Rural Californian for March, 1894.)

DAWN OF A NEW ERA IN ARIZONA.

COMPLETION AND OPENING

OF THE

SANTA FE, PRESCOTT & PHŒNIX R. R.

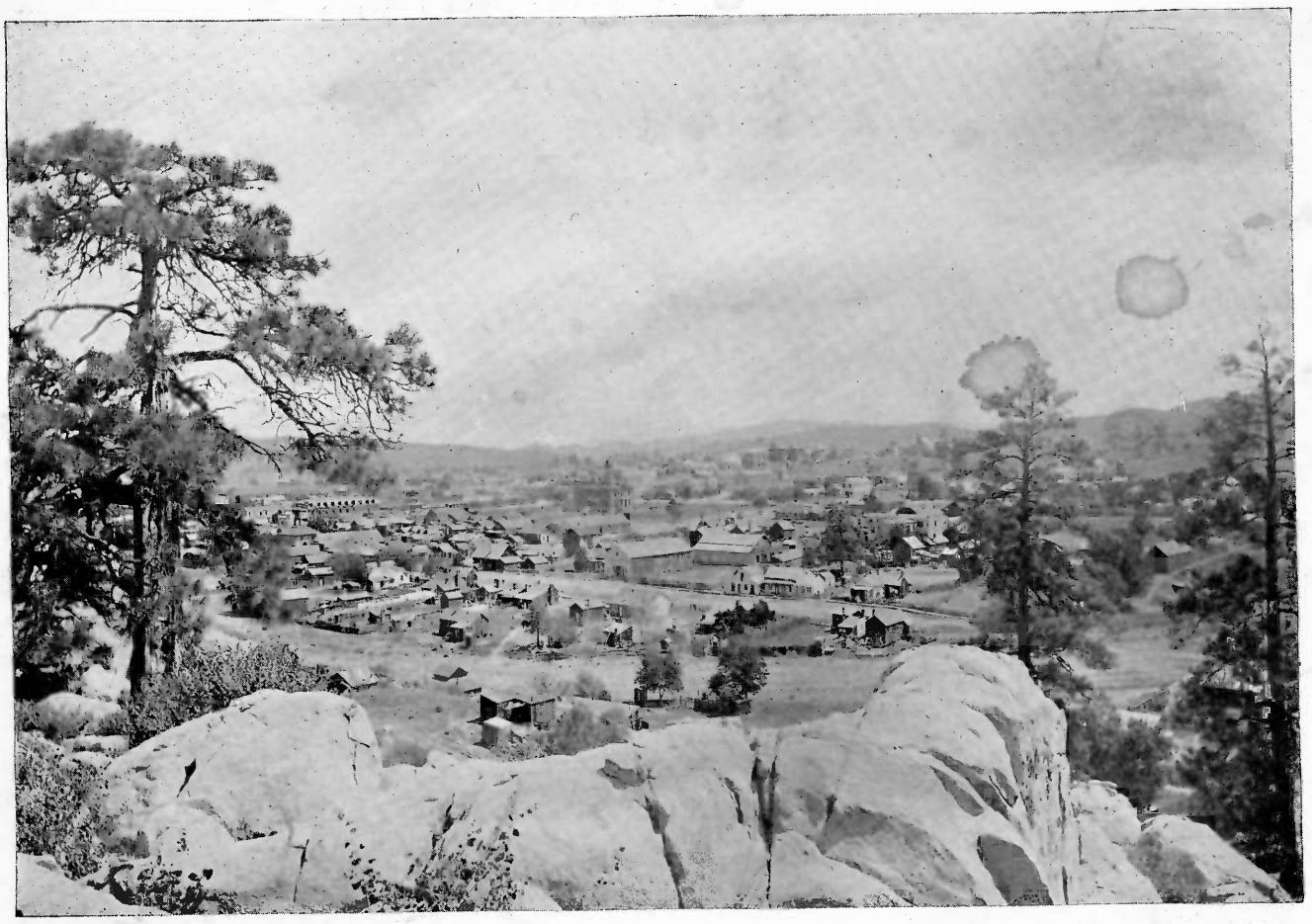
BETWEEN THE TOWNS OF

ASH FORK, PRESCOTT AND PHŒNIX.

The Horticultural, Agricultural and Mineral Resources of the Country.

New Transportation Facilities insure Development and Progress.—The New Road Heralded with Joy.—Competition at Phœnix.

RETROSPECTIVE AND PROSPECTIVE.—PRESCOTT, HER MINES, FORESTS, AND AGRICULTURE.—THE NEW RAILWAY.—THE CAPITOL CITY OF ARIZONA.—WATER SUPPLY AND IRRIGATION.—THE LAND AND ITS FRUITS.—WHAT OF THE FUTURE?



THE CITY OF PRESCOTT.

THE DAWN OF A NEW ERA IN ARIZONA.

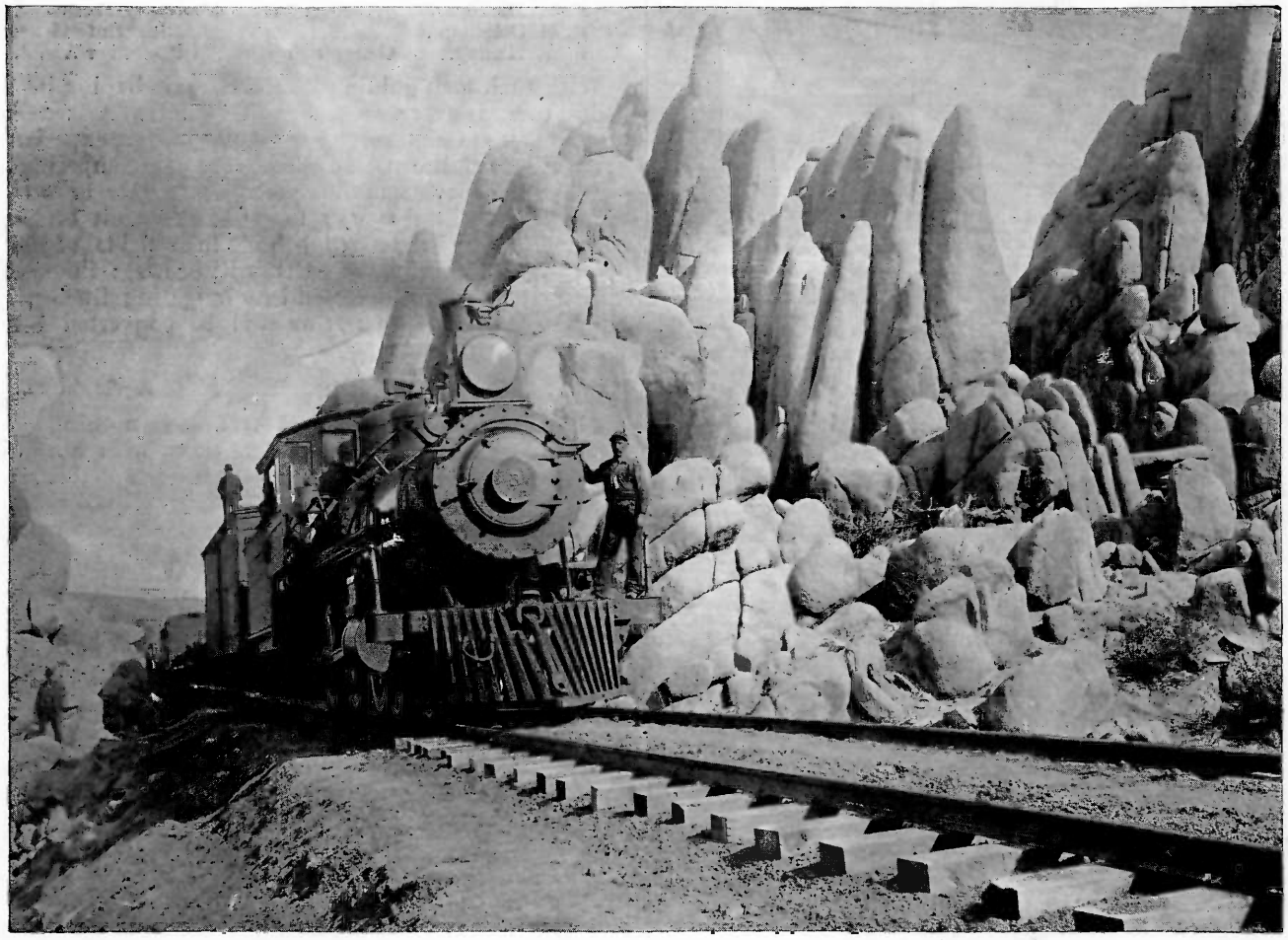
Retrospective and Prospective.

ARIZONA—a combination of the two Pima words "Ari"—signifying a maiden,—and "Zon"—meaning a valley or country—is at once suggestive to the modern reader of an arid region, and many have supposed that the name was a combination of the two words arid and zone. And the word arid—how it is abused even by those living west of the Rockies and on the verges of the great treeless deserts. Truthfully speaking, all of the available lands for horticultural and agricultural purposes are not arid in the strict sense, but only partially so. Custom designates that portion of Uncle Sam's domain as "Arid America" where the natural rainfall is not equally distributed over the year to mature growing crops of grains and fruits, though there are specially favored localities in the sub-arid regions where the earth is sufficiently moist to grow crops without the artificial application of water during the rainless or summer season. The annual precipitation is often of sufficient volume to mature a crop of fruit, but falling only during the winter months, the artificial application of water becomes essential during the period of growth and perfection of plant and fruit. In this respect Arizona and Southern California are identical, and present many characteristics and conditions in common. Both are subject to the same variable conditions of soils and climates, and both are sufficiently old to have a literature and a history of their own dating from about the same period. In many respects their chief industries—horticulture and mining—are identical and both have kept pace with the onward trend of events, and both are destined to become centers of population, especially as fruit producing sections. These salient features are self-evident.

A QUESTION OF DEVELOPMENT.

The question naturally arises, to what does Southern California owe its more rapid advance over Arizona if natural conditions are largely identical? To ascertain the factors in the problem, a retrospective glance at our southern neighbor will not be out of place. The "Territory of Arizona" was formally organized in 1863, and from its inception the sparse population suffered severe hardships, first to the hostile Indians inhabiting the mountain fastness, who, by their raids and wars with the people, retarded immigration and settlement; and later, from its isolation from the main lines of railway travel, and as a consequence development was hampered and retarded. Even after the first railway—the Southern Pacific of Kentucky—was completed, the relief that the citizens expected did not materialize. This corporation so taxed the people for its service that development in its broadest sense was impossible. Those doing business on its lines found themselves in a position to exploit their natural resources in agriculture and the

precious metals, but so high were the transportation charges of the corporation that margins were cut to the quick and many an enterprise languished for want of an equitable freight tariff. No one factor wields so wide an influence upon the progress and development of a country as cheap transportation facilities. Before the advent of a competing line of railway into Southern California, Los Angeles was nothing but an overgrown country town; Pasadena but a village; Pomona was scarcely known; while but a few orange groves were to be seen where Riverside now dots the landscape. From the day that the great Santa Fé entered Southern California dates the inception and development of all that is modern and progressive in the onward trend of the country. Competition brought about cheaper transportation charges and better shipping facilities. The merchant, farmer and miner were enabled to get their products to market and to receive their supplies at a figure that gave sufficient leeway upon which to do business. A similar relief is about to be experienced in Arizona, and the same advance will surely follow.



THE POINT OF ROCKS—ON THE LINE OF THE S. F., P. & P. R. R.

GEOGRAPHICAL CHARACTERISTICS.

But, before reciting the advent of railroad competition in Arizona, let us briefly note some of its geographical characteristics. In extreme length it measures about 380 miles, by 320 in width, embracing nearly 113,000 square miles. The present population is about 150,000.

This vast area, comprising every feature of valley, plain and mountain, is difficult to describe as a whole. The altitude varies much, from Yuma, only a few feet above tide water, to the top of Mount San Francisco, over 12,000 feet in height. Climatic conditions, of course, vary to the same extremes.

In the northern part of Arizona is a wild region, of considerable altitude, barren for the most part, where the rivers run below the surface in stupendous gorges, thousands of feet in depth. Farther south, occupying the northeastern quarter of the Territory, on the great Mogollon plateau, we trace upon the map a land clothed for a hundred miles with a dense forest of pine, a veritable huntsman's paradise in the summer months, snowy and cold in the winter. On the south this wooded plateau is bounded by the "Rim," an almost sheer descent of several thousand feet, that continues without a break for over 100 miles. To the west and south of the Mogollons stretch away the pasture regions. Then farther south come the great agricultural valleys of the Salt and Gila, rich and verdant and well peopled. Then, lastly, to the Mexican line is a broad plain, occasionally broken by hills, almost destitute of streams. Roughly estimating, it may be said that the northern two-thirds of Arizona is mountainous; the southern portion a plain averaging 1200 feet in altitude. According to the altitude are the products of the soil, varying from the fruits of the subtropical to the grains and roots of colder climes.

There are now in the Territory eleven counties, separated into two descriptions: those of the plateau and plain. To the former classification belong the counties of Apache, Coconino, Yavapai and Mohave. Their agricultural products are the grains, potatoes and such shrubs and plants as are capable of withstanding a snowy winter. In the latter snow is seldom seen. The winters are

mild; apples and potatoes are not so successful, but peaches, the grape, the fig and citrus fruits grow bounteous and profitable crops.

There are no rivers of any commercial importance. The Colorado is a large stream, and next in size is the Salt, which is a mountain stream. The chief affluent of the Colorado within Arizona is the Little Colorado, in Apache county; of the Salt, the Verde in Maricopa county, and the Tonto and Cherry Creek in Gila county. Speaking generally, the whole expanse of Arizona is a healthful and pleasant climate. There are now coming hither every year thousands afflicted with pulmonary complaints.

The valleys of Arizona have been often likened to the valley of the Nile, to Palmyra in its glory. The richness of its lands and the life-giving qualities of its waters are now well known. There can be no doubt that few places offer better inducements to the home seeker or to the capitalist.

The Santa Fe, Prescott & Phœnix Railway.

The same brain and brawn that rescued Southern California from the state of lethargy caused by an unnatural clog upon her commerce in the shape of limited transportation facilities and exhorbitant charges, has ameliorated the onerous conditions prevailing in the leading cities of Arizona, principally Phoenix and Prescott and their environs. The completion of the Santa Fé, Prescott & Phœnix railroad, connecting the two leading towns of Arizona with the Atlantic and Pacific railway (Santa Fé system) at Ash Fork, marks an epoch in the progress of the country. The history of that railroad is interesting and in striking contrast with that of the subsidized Pacific railroads. It was first projected in 1890 by Mr. Joe. Reynolds of St. Louis—the great "Diamond" Joe Reynolds of steamboat fame, now dead—who was associated in the enterprise with Mr. Simon Murphy of Detroit, Michigan, Mr. Frank M. Murphy (a relative of the preceding and present president of the corporation), and others. The road runs from Ash Fork to Prescott—a distance of some 60 miles—and thence to Phœnix, a distance of 137 miles. It passes through the Indian reservation, Congress granting the privilege—the only concession given the enterprise by the national government. As before intimated, the Santa Fé, Prescott & Phoenix railroad was not built as a matter of speculation, simply to float bonds, but as a legitimate business enterprise. All the rolling stock and other material entering its construction and equipment is of the best, all of which has been ably and economically carried out under the immediate and personal supervision of Mr. F. M. Murphy, who has been identified with the enterprise from its inception to completion, and to whom great credit is due for executive ability, judgment and rare business tact. Mr. Murphy is in many respects a striking personality. It was his far seeing judgment that at an early date discerned the importance of a competing line connecting Phœnix and the intervening country with the great Santa Fé system at Ash Fork. His first experience in Arizona was as a successful gold and silver mine operator. The great cost in getting the product of the mines to market and the necessary mining supplies to his several "diggings," first suggested the possibility of a profitable competing railroad that should serve the people of Arizona, develop and advance her mining and agricultural wealth, and put new life and new blood into her arteries of commerce and manufactures. In a measure he has accomplished this single handed, and has stood by the enterprise like a pillar of strength that no obstacles could swerve. For the great work he has accomplished for Arizona the people owe him a debt equal to that which the people of the northern Pacific coast owe to bluff Jim Hill of the Great Northern railway when he entered Eastern and Western Washington and broke the arbitrary rates of the Northern Pacific monopoly.

THE EXECUTIVE FORCE.

But the business character and good judgment shown in the building of the road now that it is completed, is also being shown in its management. Its choice of operators and officers is indeed commendable, and evinces every care and attention for the public wellfare. Every appointment has been made with due reference to securing just the right man in the right place. The following are the officers:

F. M. Murphy ..... President.
G. W. Vaughn ..... Vice-President.
E. M. Dickey ..... Secretary-Treasurer.
R. R. Coleman ..... Superintendent.
F. A. Healey ..... General Freight and Passenger Agent.

With such men guiding its affairs and shaping its destinies, there is every assurance that Central Arizona will undergo an era of development equal to that experienced by Southern California on the advent of a competing line into her territory some nine years ago. Her brown but fertile mesas will give way to profitable fruit orchards, her rich bottom lands will behold lush fields of alfalfa upon which thousands of cattle will browse; the waters of her rivers will be diverted into irrigating ditches, and the desert will lose its terrors and be converted into a veritable garden.

Prescott and Her Mines, Forests and Agriculture.

The earlier impressions that Arizona is nothing but a cattle range, interspersed here and there with a mining camp, is an erroneous idea that has been exploded in the light of later experiences. Not that her deposits of the precious metals have all been exploited, or that their production is becoming less profitable, or that soil tilling was not recognized or practiced. But a more intimate knowledge of both has acted as a stimulus of mutual benefit. Thus we see that the two principal towns of Arizona owe their prestige and prosperity to either the one or the other. The country surrounding Prescott is rich in mineral deposits and is devoted to mining, and hence that city owes its prosperity to the mines with which it is surrounded. To be sure she also possesses some advantages in the way of agricultural lands, which, when fully opened and developed, will add to her prosperity, but the mines are her chief reliance. There are innumerable valleys scattered throughout the Sierra Pietras mountains, whose soil is rich in all the elements of plant food, that only requires plowing and seeding to yield good crops of general farm products. But these will always be second to her mining interests. With Phœnix, the case is quite the reverse. The great Salt River Valley, of which it is the metropolis, is rapidly forging ahead as one of the great fruit producing centers of the Coast. Being singularly situated in almost the very center of Arizona, it enjoys local conditions of soils and climates capable of producing a wide range of orchard and field products. There the orange and the peach, the olive and the grape, find a congenial home. When we consider that the new Santa Fé, Prescott & Phœnix railway unites these two enterprising cities and affords them direct communication with the great markets of the East, the importance of its completion is at once obvious. Now the merchant, farmer and manufacturer can readily and quickly get his product to the mines and market from Phœnix, while the delvers for precious metals and the stock men are afforded similar facilities from Prescott

and intermediate points. It is not too much to say that the completion of this line of railway marks a new era in the history and development of our southern neighbor.

THE TOWN AND SURROUNDINGS.

Prescott is the county seat of Yavapai county, and has a population of about 3500 souls. It is charmingly situated on a gently sloping hill. Tall coniferous trees cover the higher ranges of hills beyond, while at their base flow the rippling waters of Granite Creek. Its elevation above sea level is about 5600 feet, rendering the summer climate salubrious, while during the winter light snows are not uncommon. It never grows biting cold. In its general make up the town is typically American, and in a large degree reflects the resistless energy of the Anglo-Saxon. The houses are all built of stone or wood; but few adobe houses are to be seen. Of public buildings, the most important are the court house, two large school houses, commodious churches, several representative mercantile establishments, good hotels, etc. In local manufactures may be mentioned planing mills, stone cutting works, electric light works, etc. Large sampling works furnish a market for the ore of the chlorider. Prescott also has a military post.

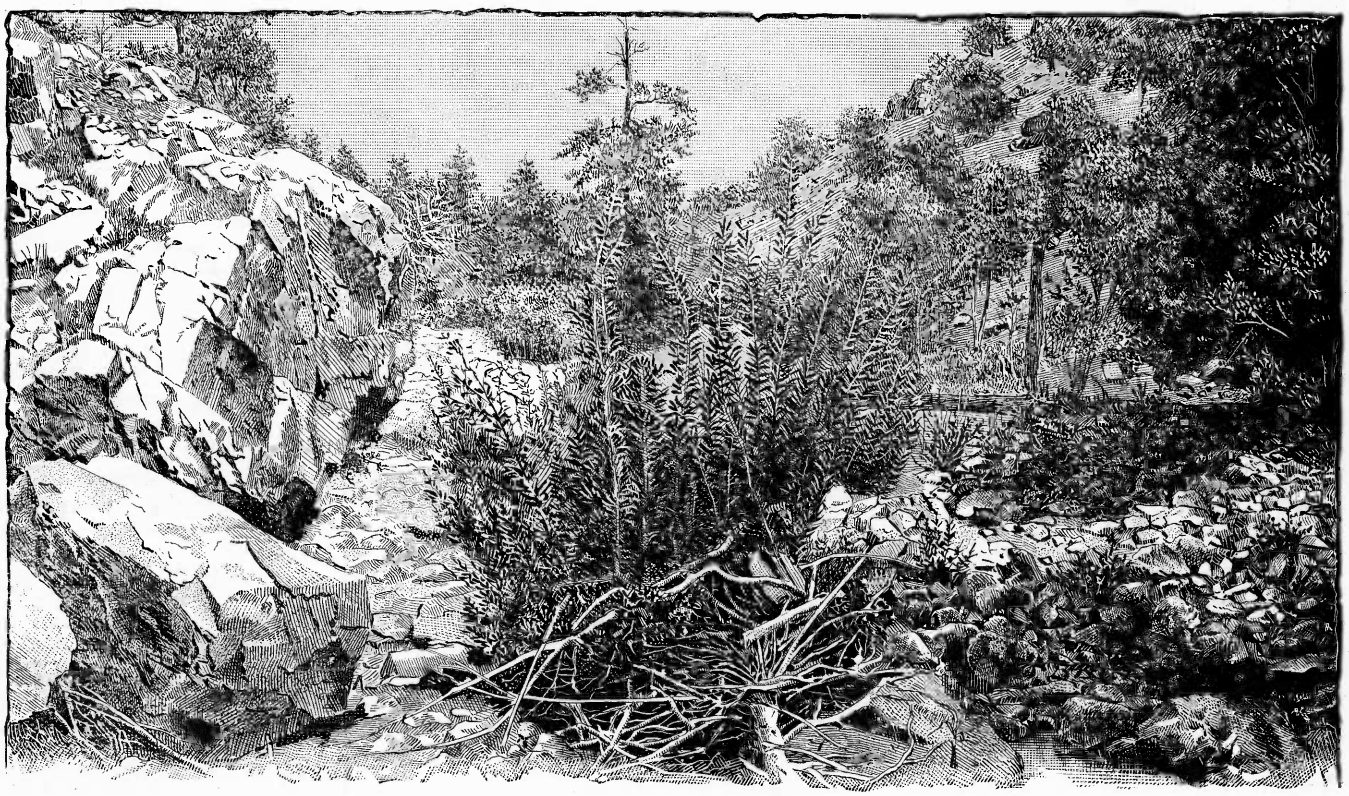
In transportation facilities Prescott is singularly fortunate. The new road binds with bands of steel the towns of Prescott, Phœnix and Ash Fork, affording rapid communication, and directly puts all of Central Arizona in touch with the great East and West through the Santa Fé system.

MINES AND MINING.

Almost every mineral known to science is to be found in the mountains of Yavapai county. Several magnificent copper properties are also looming up as factors in the production of that metal in the future. Of silver there is plenty, but miners have found that the white metal just at present is not commanding sufficient prices to warrant its production, unless the ore is exceptionally rich. There is scarcely a single acre of ground in the district in which mineral cannot be found. "Float" gold, silver and copper, covers the surface till the prospector becomes bewildered with the profusion of nature's bounty. The ledges of mineral crop prominently out on every brown hillside. To gain some idea of the mining industry, all of which is tributary to Prescott and gives it a trade and a commerce that would be a credit to a place three times as large, a cursory glance at some of the mining camps will be found suggestive.

The most important of these properties are those of Phelps, Dodge & Company, consisting of the Boggs and Hackberry mines. These mines are situated on opposite sides of Big Bug Creek, about four miles apart, and are connected by a motor line.

The Peck silver mine, situated 35 miles from Prescott, is one of the most profitable, having produced over $1,000,000 to its owners. It has been leased lately to new parties who are to develop it still further.



MOUNTAIN SCENE ON THE S. F., P. & P. R. R. NEAR PRESCOTT.

The Gladiator is called by experts one of the best mines of the West. Its shaft is about 300 feet deep, and its openings aggregate about 1600 feet in length. The ore runs about $40 to the ton in fine gold. The Del Pasco is being worked successfully with the aid of a 5-stamp mill. There are a dozen other good mines on the same continuous ore bodies.

The Old Reliable gold mine is another property that is creating a good deal of talk among mining men. It also is situated about 30 miles from the town.

The Little Jessie is a superb property. It enjoys a fine double-compartment shaft, in connection with a well equipped mill. It has yielded a handsome return to its owners. Curiously, the ore, though strongly pyritic, is yet readily milled.

The Seven Star group, generally known as the Hillside property, was purchased about a year ago, by H. H. Warner of Rochester, New York, who paid the original

owners $450,000. There are seven well developed patented mines, and a large number of claims. The ores are high grade and lie in large bodies. The returns are said to be very satisfactory, both in gold and silver.

The Senator, 11 miles from the city, is a splendidly developed property, enjoying every requisite for the proper handling of and digging out the ore. A tunnel nearly 1700 feet long is one of its features, which is to be extended.

Down near the center of the Bradshaw range of mountains is the famous Crowned King property. There is a remarkable development on this property; its main tunnel from the valley level is 1400 feet long; 200 feet above this is another tunnel 400 feet long; 150 feet above, another 300 feet in length, and all connected by a winze. All these workings are in ore, showing an average value of over $50. At the mouth of the lower tunnel and shaft is located the 10-stamp mill.

The Congress Gold Mining Company's mines are situated 52 miles southwest from Prescott. The company was organized in 1887. During the first two years but little was done in the way of working and developing the property; after that period a 20-stamp mill was erected, and in the spring of 1891, 10 additional stamps were added. The works now crush about 100 tons of ore daily. The product from this property is at present in the shape of concentrations assaying from $140 to $200 per ton in gold. The stock of the company is principally in the hands of Mrs. Mary E. Reynolds, widow of the late "Diamond" Joe Reynolds of St. Louis, and one of the original projectors of the Santa Fé, Prescott & Phœnix railroad. The saving to the company, in transportation alone, by the building of this railroad, will amount to something like $8,000 to $10,000 per month, which furnishes a splendid object lesson of what this railroad will do for valuable mines situated between Prescott and Phœnix. Not only does this apply to the mining industry, but it affects in a corresponding degree every other interest, saving to the farmer, miner, and stock raiser, thousands of dollars and at the same time augmenting the development and progress of the country and enhancing values all along the line.

At Jerome are the extensive works of the United Verde Copper Company, principally owned by Clarke, the noted Montana capitalist. Here are located three 50-ton water-jacket furnaces and a large reverberatory furnace. The mine is an immense deposit of rich copper ore, carrying a high percentage of silver. It is very easily broken out, and the cost of reduction is small. Several high ranges of hills separate the mines from a good wagon road to the railroad; so over these has been constructed a novel tramway, by means of which a great saving in freight charges has been made. There are 300 men employed in the United Verde alone.

The Morning Glory is a choice property located 20 miles to the south of the city, and yields in profitable quantities the precious yellow metal.

Fifteen miles south of Prescott the Venezia Gold Mining Company has a splendid claim of "pay dirt" varying in width and assaying at a handsome figure.

Almost every Arizonian is familiar with the story of the discovery of gold on what is known as Rich Hill at the head of Weaver Gulch by a Mexican who was hunting lost horses for A. H. Peeples. He there found the big nugget, which has been estimated at all the way from a few hundreds to a few dollars in value. A very lively camp at once sprang into existence, and several millions have been taken from the gravel on the top of Rich Hill and the gulches leading therefrom. Probably 200 people depend entirely upon the gravel of Weaver district for their living. Weaver district has turned out, and continues to turn out, the largest nuggets of any camp. The gold is all coarse, and in fineness equals any that has ever been found. The mesas south of Weaver, from Rich Hill to the Hassayampa river, are also very rich, and while the gold is not so coarse, it is of the same value.

Placer gold is being taken from the gravel of the Hassayampa river along its entire course, from its head in Maple gulch below the Senator mine. Accurate estimates are not available upon all of these diggings, but from all along the river gold is being constantly taken out, and shipped to Prescott. The Walnut Grove district has been worked since 1886; the gravel samples about 40 cents per cubic yard. Several nuggets have been found.

Besides these striking illustrations of successful gold, silver and copper mining, of which Prescott is the recognized center, there are many others that might be mentioned, all tending to show that mining is an industry that has a brilliant future before it, now that the entire belt of country from Ash Fork on the Atlantic and Pacific clear to Phœnix—a total distance of 197 miles—has been linked together with bands of steel. From a broad point of view, it can truthfully be said that the development of the natural resources of the country aligning the railroad is still a matter of future accomplishment. The possibilities are certainly great, not only in mining, but in horticulture and agriculture, in stockraising and other lines of industry. The mountain ranges are not only rich in the precious metals, but their surfaces are covered with valuable forests of pine, of ash, and other choice woods. Vast areas are rich in choice stones, such as marble, sandstone, etc. Fortunes await the man of enterprise in the exploition and development of water, and devising ways and means for its conveyance over the rich and fertile mesas. In innumerable ways this new and virgin field invites the attention of brawn, brain and bank to its innumerable advantages to the capitalist, manufacturer, merchant, farmer, miner, and skilled laborer.

THE FORESTS AND LUMBER INDUSTRY.

While Arizona is rich in mineral deposits, valuable building stone, and other elements of the "earth earthy," her natural vegetation presents some useful products from a commercial point of view. The generally prevailing opinion is that Arizona is destitute of forest growth. This erroneous conception is principally due to the fact that her forest areas are off from the lines of railroad, and of course not to be seen by the rank and file of people travelling to and from the East or the Pacific ocean. The timber forests are mostly on the northern plateaus and in the mountains, while much of the lowlands and valleys supply sufficient wood for domestic uses. The principal forest growth is coniferous, comprising several varieties of pine, chief among which is the yellow pine of her mountains, firs, spruces, cedars, etc. Flagstaff is a principal source of the yellow pine. Large firs are abundant on the slopes of the San Francisco mountains, also poplars and other species. Large forests of spreading cedars are north of Prescott, which are valuable only as fuel, as their short and knotty trunks render them unavailable for lumber. Besides the above some mention must be made of the mesquite which is quite general all over Arizona in river valleys and along the washes. Its chief value is as fuel, equalling in this respect the hickory and maple wood of the East. Charcoal made of it is said to be of fine quality.

With regard to timber growth close at hand, Prescott is singularly fortunate, being surrounded by forests which make possible the operation of a number of sawmills, which give employment to a large number of men, stim-

ulating trade and adding to her development and prosperity.

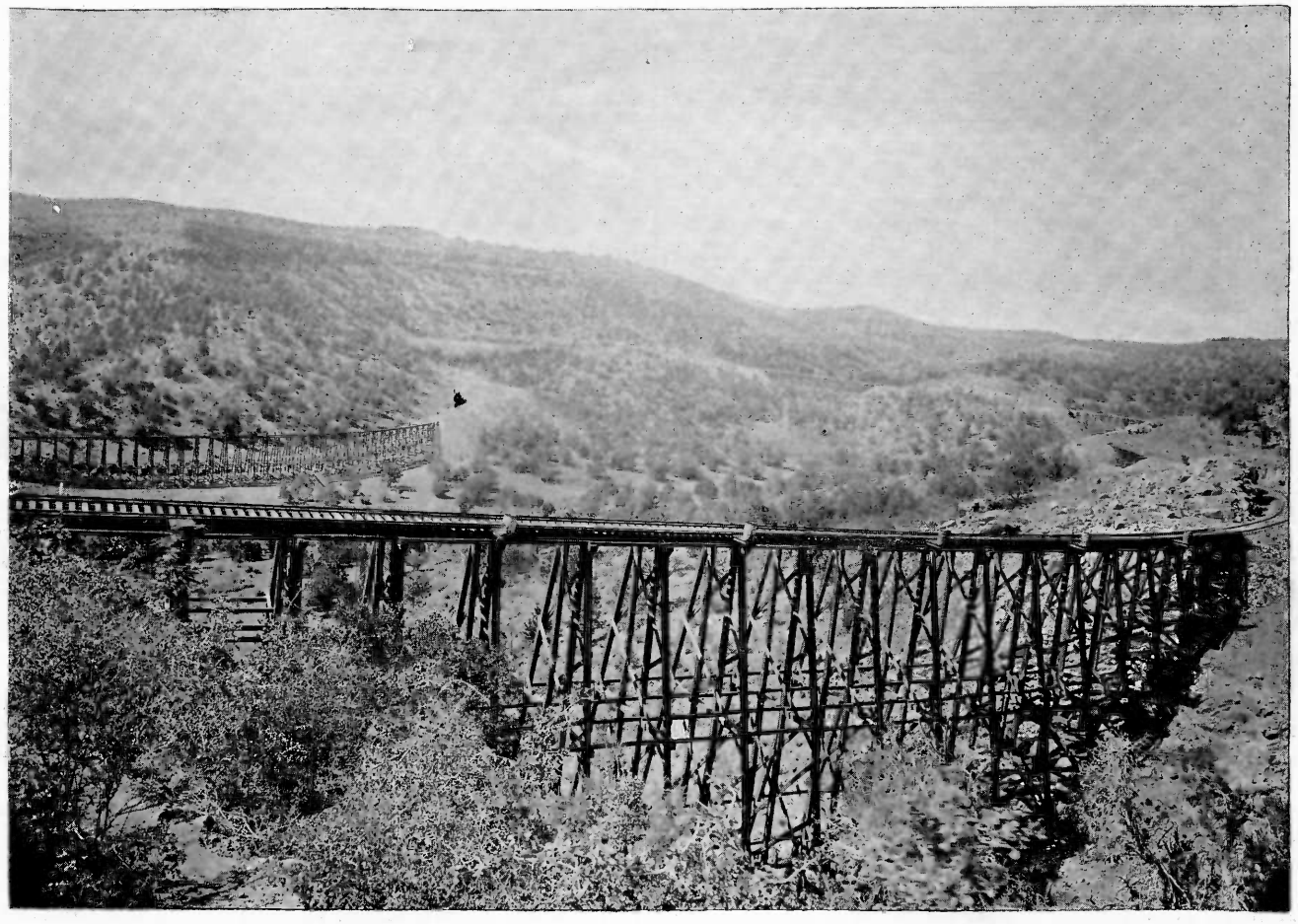
AGRICULTURE, IRRIGATION, HORTICULTURE.

Though the principal industry of Yavapai county is mining, yet there is much to say regarding her agricultural resources. It enjoys a number of mountain valleys wherein lie fertile fields tilled by prosperous farmers. While the temperature of winter forbids the growth of citrus fruits, nearly every product of the temperate zone flourishes. The valleys of the Verde and Agua Fria are now the main agricultural sections, though many acres are cultivated in Skull, Kirkland, Williamson, Peeples, and Chino valleys. The crop of barley, wheat and oats is usually large and of the finest quality. Orchard, garden and field crops grow to a size and a flavor second to none. Apples, pears and peaches thrive wonderfully and in quality are superb. Small fruits do equally well.

In the Big Chino valley, which stretches away 50 miles northwest of Prescott, the future agricultural region of Yavapai county will be found. Here are several hundred thousand acres of excellent soil, needing only regularity in its water supply to bloom in all of nature's brightest vestments. Here, as in so many other parts of Arizona, water storage alone can be relied on to give the necessary moisture during the dry seasons of the year. There are a number of sites available for such enterprises, and large profit awaits the capitalist who grasps the opportunity. Near the head of Williamson valley work is under way on a storage dam to supply irrigating water for the development of 10,000 acres of land lying below. Owing to the high winter temperature it is believed the locality is well adapted to fruit culture.

Cattle and sheep are numbered within the county by the thousands. Both cattle and sheep are of high grade for range animals. The rearing of horses is also a successful industry, good blood being the rule rather than the exception.

The conditions of soils and climates prevailing in Yavapai county are more or less varied, and render the profitable production of diverse crops possible. The climate is temperate rather than sub-tropical. All varieties of deciduous fruits represented east of the Rocky mountains do well, while garden and field crops flourish on the rich alluvial soils. Irrigation, however, while not always essential, is nearly so. The cereals, grasses, forage plants, and garden truck can all be grown on the moist bottom lands without the artificial application of water. Fruits may in favored situations be grown under similar conditions, but it is safe to say that on the foothill lands—which are preferable for fruit culture—irrigation will be necessary. And while mining has commanded the best energies of the people, it is safe to say that with the completion of the railroad water development and irrigation enterprises will be inaugurated, and the growing of orchard crops become an important industry.



TRESTLE ON THE FAMOUS LOOP OF THE S. F., P. & P. R. R.

Possibly stock raising in conjunction with the growing of the cereals, grasses and fodder plants upon new and correct lines will also more largely aid in the development of the country, and add much to the prosperity of the people. Agriculture, when coupled with mining, forms a combination that is indeed hard to beat.

The future of Prescott and environs is indeed full of promise. Everything points to a rapid increase of population and in wealth. Her geographical location, her

natural resources, her railroad facilities, the enterprise and public spirit of her citizens, the inducements she offers to the capitalist, to the merchant, and to the homeseeker, are all of such a character as to attract people from all sections.

Along the S. F. P. & P. Railway to Phœnix.

The country aligning the track of the Santa Fé, Prescott & Phœnix railroad is a vast empire of undeveloped possibilities. Prescott to Phœnix is 137 miles. The country in its formation comprises valley and mesa lands, vast stretches of grazing lands, bits of forest and timber, with here and there a giant gorge or a rippling brook fringed with willows and poplars to add beauty to the landscape. This vast storehouse of rich deposits of the precious metals and vast horticultural and agricultural possibilities only awaits the magic touch of brain and brawn to at once spring into public notice and attract immigration. This inland empire comprises literally millions of acres of choice grazing lands, much of which is adapted to fruit culture and general farming, its only drawback being a series of irrigating systems that shall develop and utilize the water from the mountain streams, from the underground currents on mesa and lowland by means of artesian wells, and from the percolating waters in the hills and cañons. What has already been accomplished in a few instances by the pioneers of this new terra incognita is but a shadow of what is to follow in the near future. Scattered here and there in isolated spots orchards of deciduous fruits have found a congenial home; mining enterprises are commanding attention; the exploition and development of water for irrigation purposes is full of promise and warrants the prediction that in a few years this vast stretch of country will be awakened from its long silence by a strong influx of people from the congested and over-crowded cities in the east and from abroad, to build homes in a country that is full of resources and full of promise. In short, a country that says to the stranger, "If you are poor, I offer you a good living; if in moderate circumstances you can make yourself comfortable; if wealthy, you can make profitable investments."

AN INCIDENT OF THE APACHE WARS.

To give point to one of our illustrations—that showing the Point of Rocks with the railway locomotive in the foreground—we shall divert the reader's attention for a moment. In 1860 the white population of the Territory numbered about 1000, but at the outbreak of the civil war all military posts were abandoned, the troops being withdrawn for service in the East. This left the hostile Indians free to follow the promptings of their savage nature. Settlement after settlement succumbed to their fatal attacks. Death and destruction everywhere threatened person and property. It is said the first real Apache war commenced with the advent of Walker and his company into the Territory in 1860. The locality of the Point of Rocks was a recognized stronghold of the Indians. Here it was that brave Mrs. Fannie Stevens—who lived close by—ensconed herself in one of the grottos with rifle in hand ready to defend the family hearthstone against the attacks of the enemy. The rocks shown in the picture is where she stood watching for the coming home of her husband and his followers in order to give them warning, so that Indians could not waylay them.

THE SANTA FE LOOP.

The other picture shows a bit of scenery on the Santa Fé loop, a feat of railway engineering that promises to become as famous for its cleverness and the grand scenes aligning its crescent-like course as the famous loop in the Hagerman pass on the Colorado Midland or the Horse Shoe Curve on the Pennsylvania railway. The Santa Fé people are not to be eclipsed by competitors. It can only be a question of time when we shall also hear of a kite-shaped track in the Salt River Valley.

The illustration shown on page 7 represents a portion of the famous loop previously referred to, and shows one of the immense trestles on this line. It is a fair sample of the substantial character of the construction, and the difficult engineering feats accomplished. The wild and picturesque scenery of the region traversed by the Santa Fé. Prescott & Phœnix railroad is such as to appeal to every true lover of nature, while the comparative abundance of big game of all sorts proves exceedingly attractive to the sportsman.

The sparseness of population continues for almost the entire distance from the time we leave Prescott until we near the city of Phœnix—the center of the garden spot of Arizona. The contour of the country is much the same all the way, only that orchards and vineyards, gardens and cultivated fields become more common as we near the Capitol City of Arizona. The climate also becomes milder and we instinctively feel that we are approaching conditions that more closely resemble Southern California than those prevailing at Prescott. The characteristics of the people and the outward appearance of the two cities are also apt to impress the stranger forcibly with the fact that the prosperity of the one is due to working the earth for its mineral wealth and that of the other to working the earth for its horticultural and agricultural wealth. Like Southern California the garden spot of Arizona is exotic in character. Every fruit that it produces in commercial quantities is native of some other country. It would seem as though in ages past some mighty eruption of the earth's surface had broken off a section of Asia and swept it up aganst the western coast of the United States. For of all the fruits we produce as a commercial proposition not one is indigenous to the soil. This statement is of itself startling and of interest to the botanist, but the fact that in many cases these fruits flourish here with a luxuriance unknown in their native home is more so.

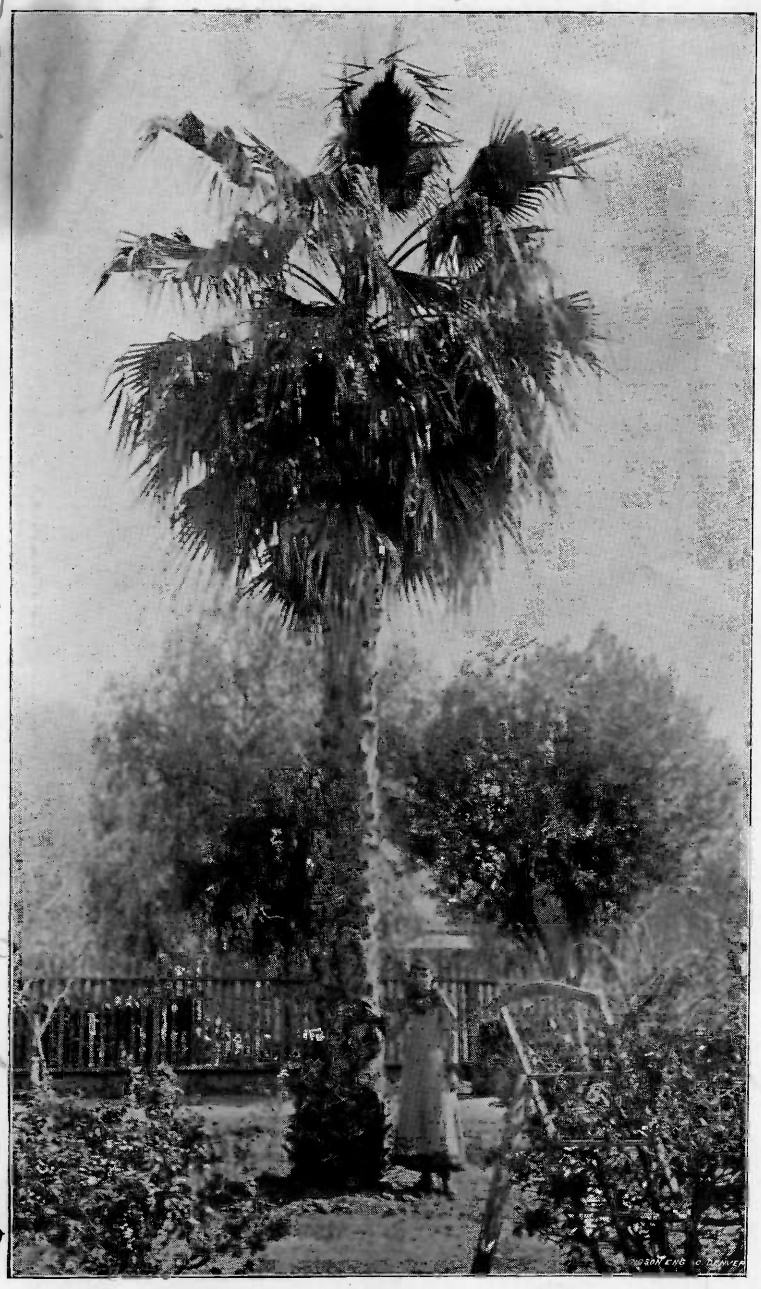
The Capitol City of Arizona.

As one nears the city proper on the new line of railway there is a sense of enterprise and thrift prevalent; it seems to permeate the atmosphere, and tingle at one's finger tips. The place looks business and the people evidently mean business. There is nothing of the easy-going Mexican life about it; it is a bustling metropolis dominated by American enterprise and Yankee thrift. The city proper lies on a gently sloping plain, and about two miles from Salt River. The mountains lie equa-distant about ten miles to the north and to the south. On either hand stretches the far-famed Salt River valley with its celebrated orchards and vineyards. The situation is charming, and reflects the sound judgment of the founders of the town. Not only is it the largest city in Arizona, but also the most substantial and the wealthiest.

Phœnix was laid out as a townsite in 1872. Population was slow in coming till '79, when the completion of the Southern Pacific to Maricopa opened a way hither for the homeseeker. The immigration and progress was much accelerated in 1888 by the building into Phœnix of the Maricopa & Phœnix railroad. This growth, however, was spasmodic and ephemeral. The benefits anticipated were short lived. While the advent of the railroad facilitated travel, it at the same time acted as a clog by its arbitrary and dictatorial tactics and exhorbitant transportation charges. To be sure it accelerated business, but by a just and equitable system of freight and passenger tariffs it might have been the direct means of making Phœnix a city of twice its present population

Private school of Mrs Evans

Site of YWCA 3rd Av. & Monroe



FAN PALM 50 FEET HIGH IN YARD OF J. W. EVANS, PHŒNIX.

and wealth. Instead of reaching out after more freight, the Southern Pacific has here, as elsewhere, followed the policy of charging all the traffic will bear, irrespective of the welfare of its customers. In the fruit business this simply means to curtail the producer's margins and as a natural sequence lessens production and at the same time reduces the amount of freight that it might secure by lower and more equitable charges. With the competition of the Santa Fé, Prescott and Phœnix railroad, however, this monopoly of the Southern Pacific upon the shipping interests of Phœnix has been broken, and now the onward trend of the city and country will be accelerated and rapid. In the estimation of careful observers it is predicted that inside of three years the population will be doubled. For the business man and the manufacturer there are many lucrative openings; for the family man and the homeseeker, for educational and social advantages, there can be no place more admirably situated. In point of improvements, aided by the many natural advantages, much has already been done, and from the tree-embowered hamlet has risen a city ranking in completeness with many Eastern cities of thrice its population. Beside living water, which flows along every street, an efficient water works system is in operation. Illumination is supplied by gas and electric lights. There are miles of electric railway, furnishing cheap transportation to all parts of the city. A well-equipped fire department insures immunity from destructive fires. The County Court House and the City Hall each occupy a block in the center of the city. Three model schoolhouses are filled by the rising generation. Church organizations are maintained by the following religious bodies: Episcopal, Baptist, Christian Baptist, Methodist Episcopal, Methodist Episcopal (South,) Presbyterian, Roman Catholic, and Seventh Day Adventists. The secret orders are well represented. The news is disseminated by three daily and weekly journals. The ordinary mercantile vocations are well represented. There are manufactories of artificial ice, planing mills, lumber yards, an iron foundry, a large roller-process flouring mill, banks, hotels, etc. There are three public halls and a public park on the outskirts. The establishment of a canning factory, a public fruit drier, beet sugar factory, a large creamery, a pork-packing house, sampling works and a steam laundry are all enterprises that would find a profitable field for operation in Phœnix.

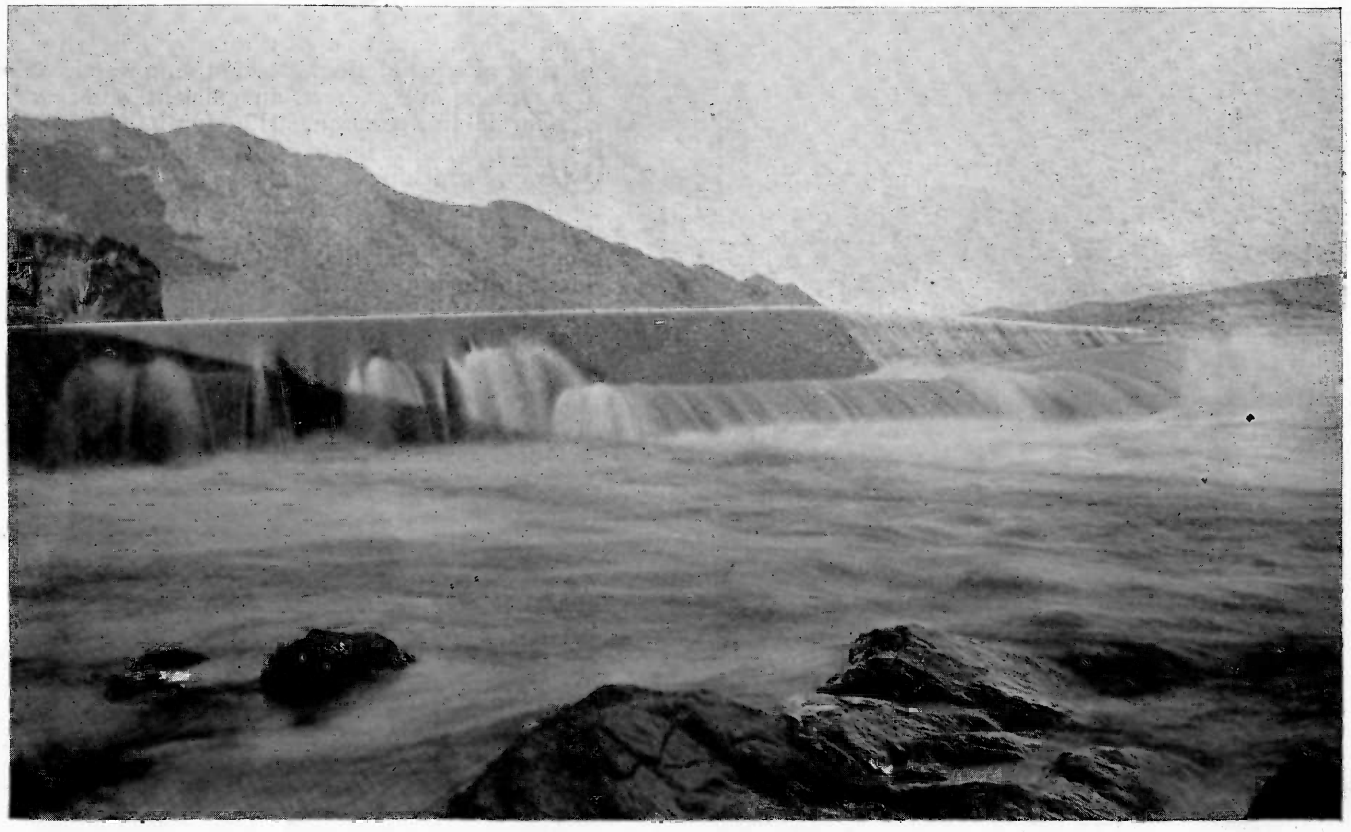
THE CLIMATE AND SURROUNDINGS.

The climate of Phoenix and the surrounding country may be described as sub-tropical. The summer heat sets in earlier than in Southern California, is probably not so intense, and lasts longer. Hence, many fruits mature earlier and as a consequence reach the markets sooner and bring correspondingly better prices.

Almost every day of the year may the husbandman labor without discomfort. The summer heat has attached to it no unpleasantness. It is also to be noted that the summer temperature of the interior valleys of California is much higher than in the Salt River Valley. Here the breezes blow from cool plateaus, and the sun's rays are moderated by the altitude of over 1,000 feet upon which Phœnix stands. It is doubtful if a superior climate can be found. To Phœnix as a sanitarium flock large numbers of strangers seeking for the precious boon of health, and rarely are they disappointed. There appears to be no class of disease indigenous, and the death rate is extremely low. Physicians state that the county is free from malaria, that there have been few cases of pneumonia and that less than six cases of typhoid fever have been known in the last two years. Rheumatic, consumptive and asthmatic patients are especially benefited.

THE SOIL AND ITS PRODUCTIONS.

The horticultural and agricultural possibilities of Maricopa county are indeed wonderful to contemplate. The "lay of the land" is for the most part almost level, with just sufficient pitch to afford good drainage. The available area embraces thousands of acres, much of which is already under cultivation. Touching the fertility and character of the soil a chemical analysis shows that when compared to the black prairie soils of the East it is wanting in humus and nitrogen, but is rich in potash and lime, and carries a reasonable amount of phosphoric acid. Humus in the shape of plowed under green crops carries with it nitrogen, and can therefore be recommended for these soils. Like all the land of the arid regions these



SALT RIVER VALLEY DAM.

soils yield much better after being cultivated for a time. A chemical analysis of soil from the Salt River Valley gives the following results:

	SOIL, PER CENT.	REMARKS.
Fine earth, less than 1-40 of an inch	.45	
Skeleton (coarse particles, larger than 1-20 of an inch)	.42	
Particles between 1-20 and 1-40 of an inch	.13	
COMPOSITION OF 100 LBS. OF THE FINE EARTH.		
Total insoluble matter (Hcl. spgr. 1.115)	76.31	(After 5 days' treatment with acid and heat).
2. Insoluble silicia, sand	68.42	
3. Silica, soluble in soda carbonate, combined silica	9.91	
4. Potash (potassium oxide)	,51	High.
5. Soda (sodium oxide)	.31	Free from alkali.
6. Lime (calcium oxide)	3 37	High.
7. Magnesia (magnesium oxide)	.12	Sufficient.
8. Iron (ferric oxide)	5.50	Cause of color of soil.
9. Alumina (aluminum oxide)	4.03	Combined with "2" as clay.
10. Phosphoric anhydride, phosphate	.83	Very high.
11. Sulphuric anhydride	.03	Sufficient.
12. Carbonic anhydride	.21	Combined with lime, as lime-
13. Chlorine	.02	See soda. [stone
Water	2.04	[ted for out of 100.
14. Volatile matter (organic, etc.), volatile	4.08	Decaying matter low; accoun-
Total	97.38	
Weight per cubic foot	71 pounds.	Average.
Total soil nitrogen	.02	Low.
Humus	.27	Low.
Capacity to hold water	.45	Average.
Humus soluble phosphates	.11	

From the above it will be seen that the nitrogen and organic matter are low—indeed, so much so that it may be found necessary to supply both by planting nitrogenous green crops, such as the legumes, to plow under for green manure. There is no alkali, a portion of the lime being in the shape of limestone. Like so much of the best fruit land in Southern California, the soil is disintegrated granite. On the other hand, the large amount of phosphates and potash make it especially available for fruit culture. It is richer in this respect than either the soils of Florida or California. The only weak point, in the soil, according to the above analysis, is the amount of nitrogen (ammonia) it contains, but it is so abundant with all other elements that this can profitably be supplied as above suggested. Stable manure will give the organic matter, and Chili salt peter (nitrate of soda) the nitrogen. So much by way of the soil; let us now see what the available water supply for irrigation consists of and how it is conducted over the land.

The Water Supply and Irrigation Systems.

Maricopa county is pre-eminently a section of irrigating works. On either side of the two rivers traversing its full length are numerous irrigation canals, all of importance, and each serving to enhance the value of the lands aligning said water courses. These systems are about 20 in number as follows: The Grand Canal Company, The Arizona Company, The Water Power Canal Company, Salt River Valley Canal Company, Maricopa Canal Company, Tempe Irrigating Canal Company, Southern Extension of the Tempe Canal, Western Branch of Tempe Canal, Citrus Water Company, Gila Bend Consolidated Canal Company, Utah Canal Company, Mesa Canal Company, Highland Land and Water Company, Agua Fria Water and Land Company, The South Gila Canal Company, Pennsylvania Irrigation Company, Rio Verde Canal Company, Buckeye Canal Company, The Valley Canal Company. This list of itself forms a striking index to the water sources and irrigation development that has taken place in and about Phœnix during the past few years.

The total mileage of all canals accurately tabulated from official sources is as follows:

NORTH SIDE NAMES.	MILES IN LENGTH.
Arizona Canal	47
Grand Canal	27
Maricopa Canal	26
Salt River Valley Canal	19
Water Power Canal	4
Farmers' Canal	5
St. John's Canal	12

VIEW OF A YOUNG ORANGE GROVE OF THE ARIZONA IMPROVEMENT COMPANY.

SOUTH SIDE.	
Mesa Consolidated Canal	40
Highland Canal.	22
Tempe Canal	30
Utah and Eureka Canal	20
San Francisco Canal	6
Total	258

THE ARIZONA IMPROVEMENT COMPANY.

Of the above land and water enterprises the Arizona Improvement Company easily occupies first place. It is one of the bulwarks of Arizona's prosperity and advancement, particularly from an horticultural point of view. Its paid up capital is $3,000,000. The lands and canals of the Arizona Improvement Company are situated in the Salt River Valley of Central Southern Arizona—surrounding Phœnix, the capital and principal city. Phœnix already has a population of 15,000 and is rapidly increasing, the voters' registration of October, 1894, showing an increase of 1,450 over that of the previous year. The land upon which Phœnix is built and the surrounding lands were reclaimed by the irrigation system of this Company, and some idea of its importance can be formed from the fact that upon what was heretofore a worthless desert waste, has grown a value estimated at twenty millions of dollars.

Modern irrigation in Arizona began in 1867, with the construction of The Salt River Valley Canal. The Maricopa Canal was started a year or two later, the Grand Canal eight years after. These were constructed from time to time. The great Arizona Canal was commenced in 1883, and was completed in 1887. Two years later a consolidation of the four canals was effected under "The Arizona Improvement Company," and the Water Power Canal, connecting them all, was built, thus constituting the most complete system of irrigation in the United States. The water appropriation of the system is 72,000 miner's inches, the title thereto was duly acquired under the laws of the United States and of the Territory of Arizona, and is absolute and indefeasible. The lands have perfect topography for irrigation, the water is applied by gravity, no pumping necessary.

There are now 150,000 acres covered by its already completed 266 miles of main and lateral canals. The further completion of the system to the extent of its water supply will enable the company adequately and at all seasons to irrigate at least 70,000 acres more, making a total of 220,000 acres of land irrigated by its canals. Estimated by their actual and proven productive capacity under irrigation, not only in horticultural productions, but in general agriculture coupled with their ability to support a large population to the acreage, there are no lands of equal intrinsic value. As the annual rainfall in the valley is light all of these lands would be valueless without irrigation. Only through the canals of this system can water for irrigation ever be applied to them, and this being the only water available for that purpose, the Company's contracts with the users thereof are perpetual.

The soil is a rich alluvium, from 10 to 20 feet deep, and the waters of the river from which the canals are supplied, like those of the Nile, carry a large amount of sediment which continually enriches the soil in the process of irrigation. The special committee of the U. S. Senate, report 928, part 1, May 5, 1890, page 60, says of the Salt River Valley:

> Analysis of this soil shows its fertile qualities to be superior to that of the Nile earth.

Located 500 miles nearer market, and with a season at least six weeks earlier than in California, thereby securing a good market and better prices, there is no question as to the profits of fruit culture in the valley.

The rapid growth of vegetation of all kinds makes possible grounds of great beauty the second year. In the way of soil production there is scarcely anything that cannot be grown on these lands, excepting extra-tropical

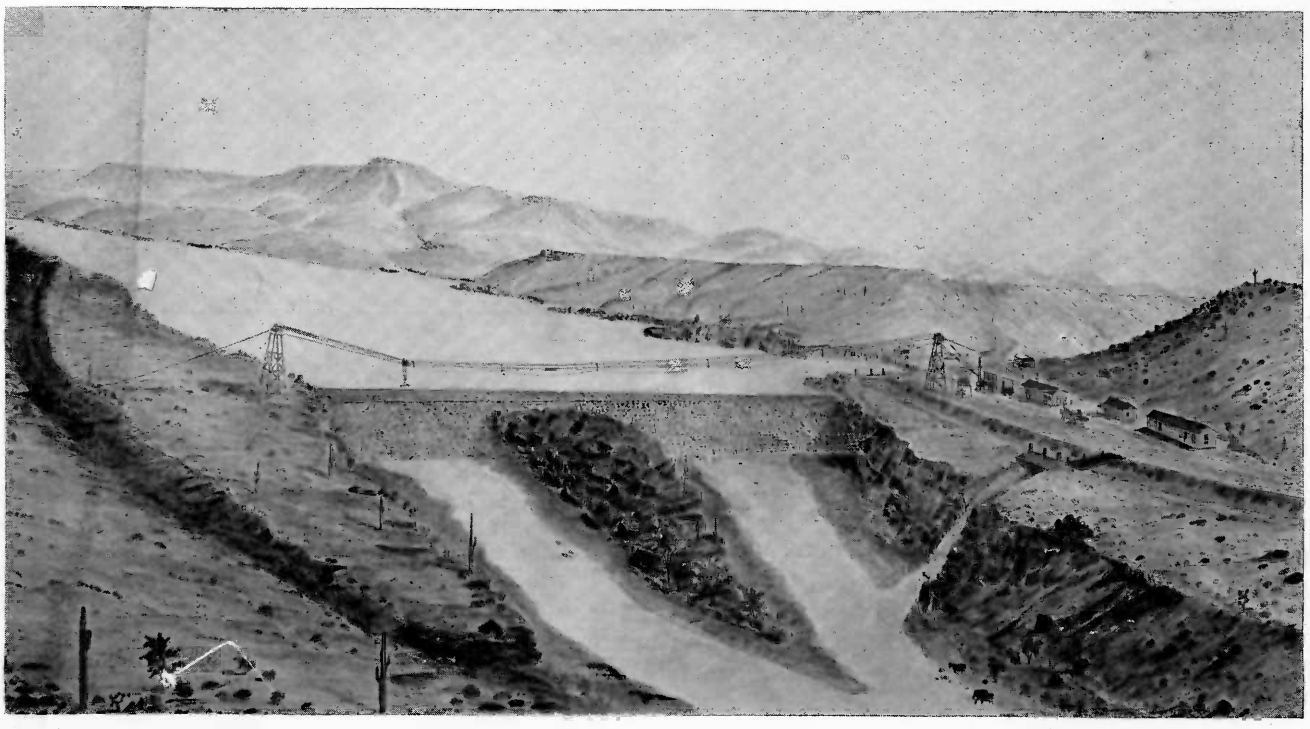
plants. The orange, lemon and lime, olive, peach, prune, almond, and cherry, the apple, pear, and quince all do well. The productions of the valley cover a wide range and embrace every article needed for home consumption. Considering these advantages it is pleasant to note that land is still to be had at a price based upon its intrinsic value rather than upon a speculative basis. This is certainly a feature worthy of commendation in a community that is making the progress in all the lines of development that this section is.

THE AGUA FRIA PROPOSITION—WHAT IT IS, AND WHAT IT IS PROPOSED TO ACCOMPLISH.

It is a storage reservoir proposition, situated on the Agua Fria river. The location for the diversion dam is 35 miles northwest from the city of Phœnix, in the county of Maricopa, Arizona. This dam will be 40 feet high above the surface of the sand in the bed of the river, and 620 feet long on top. A large island of solid rock in the bed of the river 184 feet wide rises to the heighth of 25 feet, thus reducing the cost of the dam very materially, and at the same time adding to its strength and durability. The crest of the dam is six feet above the bottom of the canal, which enables us to take six feet of water in the canal. The canal will be 24 feet wide with a uniform grade of two feet per mile, making its capacity 15,000 inches. The dam is constructed of solid masonry, resting on the bed rock, in some places 40 feet below the bed of the river, thus making the masonry 80 feet in height from the bed rock to the crest of the dam. This work is now far advanced, 184 feet of it being 15 feet above the bed of the stream, and in September next this dam with 30 miles of the canal will be completed, and the company will be prepared to deliver water sufficient for the irrigation of 25,000 acres of land. Above the diversion dam $1\frac{1}{4}$ miles a reservoir dam is located in a narrow gorge of the river 298 feet wide at the bed of the river, and about 450 feet wide, at a height of 75 feet, and from this elevation extending to 1,110 feet, at the top of the dam 100 feet. This dam will impound about $3\frac{1}{2}$ billion cubic feet of water, or about 80,000 acre feet of water. No considerable amount of work has been done upon this dam, although the bed rock has been cleared in some places, and pits have been excavated and soundings made to ascertain the depth to bed rock. The quarries have been opened and a large amount of rock has been quarried and prepared for the work. The construction will follow immediately after the completion of the diversion dam and canal. Eight miles above this another dam site is located in a gorge 262 feet wide at the base and but 500 feet wide at a height of 200 feet. The basin above this dam site will impound with a dam 150 high eight billion cubic feet of water, or 180,000 acre feet of water. At all of these locations rock of the very best quality for the construction of the dams is found immediately on the ground.

The water shed which is drained by the Agua Fria, and from which it is expect to get water to fill the reservoirs referred to when the dams are completed, is 60 miles long and 25 miles wide and contains 1,500 square miles, or 960 thousand acres. All of this is in a high, mountainous region where the precipitation for the past 25 years has averaged 15 inches per annum. If the average annual run-off from this land is three inches, and we assert that it is, it will amount to 240,000 acre feet, surely sufficient for the irrigation of 160,000 acres of land. This is what the company claims, that with the run off from six acres they can irrigate one acre, and they bind themselves not to sell water priviliges to the prejudice of those devoted to the first 160,000 acres. The land upon which the company proposes to use this water is situated on the west side of the Agua Fria river and between the river and the White Tank mountains. It is as fine a body of rich soil as can be found in any country.

It will produce any of the fruits that can be grown in Southern California, almonds, olives, alfalfa, wheat, barley, corn and all garden vegetables. Anything that can be produced with profit in the same tropical regions can



DIVERSION DAM OF THE AGUA FRIA WATER AND LAND COMPANY.

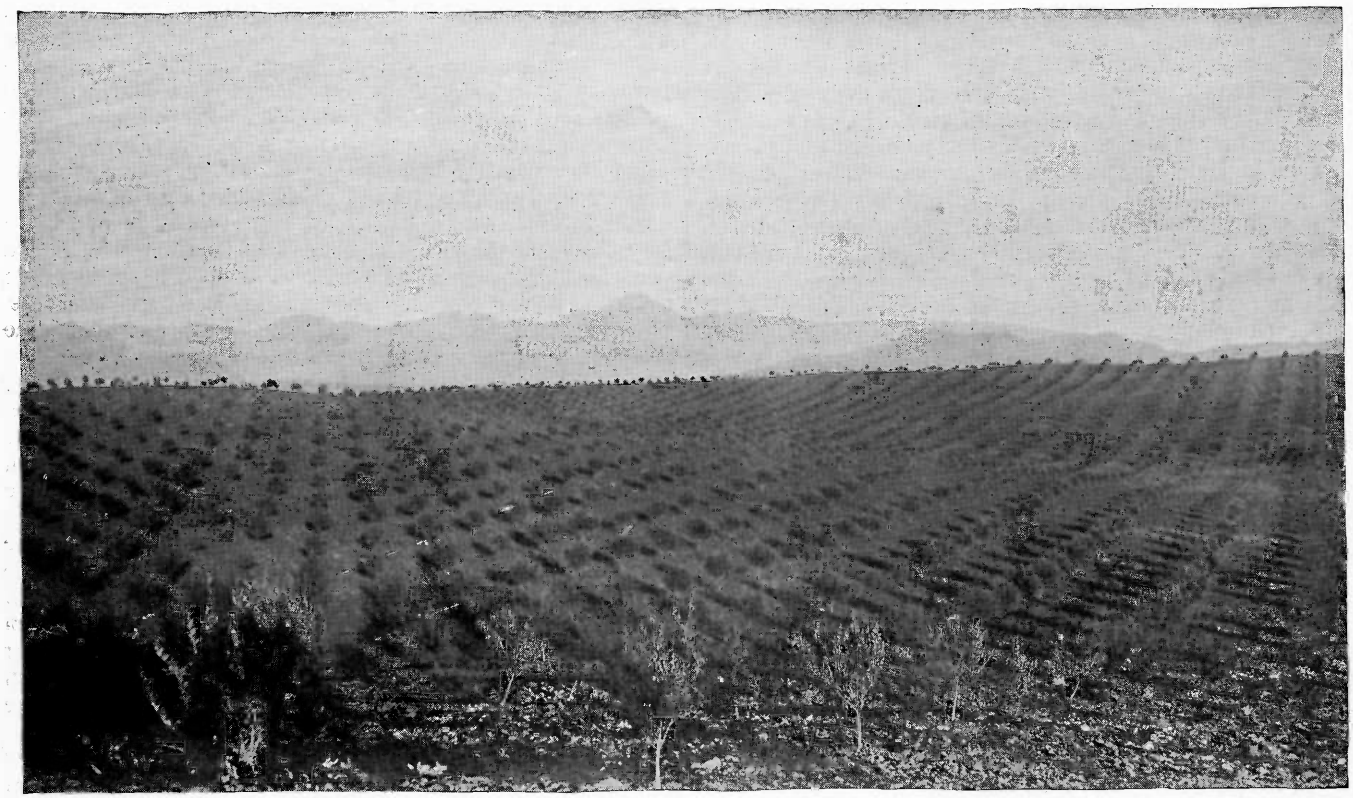
be produced here with a profit. The lands are public, and subject to entry under the desert land act, at $1.25 per acre, 25 cents to be paid at the time of the first entry and one dollar when final proof is made, which may be done at any time after water is obtained, within four years from the date of entry. The cost of an entry of 320 acres, including the expense of a trip to the land, to examine and select the desired tract, will not exceed $125, and no more need be expended until the water will be upon the land for irrigation, in October, 1895.

The terms for water contracts and the use of water will be $135 per acre per annum for 17 years, or $1,500 cash at date of contract at the option of the consumer. An additional rent of 10 cents per hour for a flow of one cubic foot per second, or 10 cents per acre inch, to be paid at the end of each month for the water actually used by the consumer during the month. Ordinarily a crop of wheat or barley will require from six to ten acre inches and will cost accordingly from 60 cents to one dollar per acre. Alfalfa will require at least three acre inches per crop and for five crops will cost $1.50 per acre. Other crops may consume more or less water and the cost will be regulated by the amount used; in no case will the consumer have to pay for any more water than he uses and the payment will not be exacted until he has had and used the water. Under this system a farmer can acquire 320 acres of land that he can go to work on next October and be prepared to raise a crop of wheat or barley with a very small outlay.

The first entry.	$125
In October the first payment on water.....	432
	$557

If he is a good farmer he will make the land itself pay all other outlays as he progresses. The following year his second payment on water contracts, $432; the third year the same, $432, and the last payment on the land and expenses of final proof, $360, making a total of $1,781. Per acre, $5.87; and his land and water privileges with the three annual installments paid are worth $35 per acre. Can any better proposition be found?

One of the most important irrigation enterprises of the Salt River Valley is that of the Rio Verde Canal Company. It has acquired control of a water supply ample for the irrigation of more than 600 square miles, well adapted to citrus and deciduous fruits and vines as well as general farm crops. The Company owns a large and perfect system of storage reservoirs for irrigation purposes. The lands to be irrigated surround the present settled and cultivated portions of the valley from 8 to 15 miles in width. Paradise valley, with its 50,000 acres; Deer valley, with its 35,000 acres; and Excelsior valley. with an area of 100,000 acres, are tracts of land which for smoothness of surface, fertility of soil and beauty of situation are rarely equalled. The soil is largely composed of silt and disintegrated granite and volcanic rock.



YOUNG OLIVE GROVE NEAR PHŒNIX.

In addition to the above the others enumerated are of equal importance, and are tending to redeem the dry mesas and valley lands by converting them into paying orchards and farms and happy homes.

The Land and its Products.

So much has already been said in this short discursive sketch touching on its advantages and resources in a general way that a specific statement will not be out of place. The great Salt River Valley is to Phœnix what the Santa Clara valley is to San Jose, what the great San Joaquin valley is to Fresno or the San Gabriel valley with its immense orange and lemon production, is to Los Angeles. Correspondingly, it may be stated that all of the fruits that are produced in Southern California commercially can be grown on the rich and fertile lands contiguous to the Capitol City of Arizona, with this difference: In Arizona the deciduous and citrus crop ripens about six weeks

earlier than in California. The advantage of this is of course obvious; it enables the producer to place his crop upon a market free from severe competition, thus insuring a good price. Local climatic conditions favor the Arizona planters in this respect. The summer heat sets in earlier than it does in California and is more prolonged, rendering the orange better flavored and adding a sprightliness to deciduous fruits that is as pronounced as it is agreeable. These broad general features are commanding the attention of horticulturists and are recognized advantages that no one contemplating fruit growing as a business can afford to overlook.

To specialize upon the future possibilities of the Salt River Valley as a fruit center is to complex a subject for this occasion. Maricopa county it is estimated contains about 1,500,000 acres of arable lands. Of this vast area but about 150,000 acres are under cultivation. The heavier soil of the lower-lying lands has been deemed especially suited to the growth of cereals, while that contiguous to the foothills is preferred for both citrus and deciduous fruits. The annual yield of wheat and barley is large, though, year by year, the farmers of the Salt River Valley are turning more and more of their lands to more profitable uses. In the Valley proper, the cultivated area is divided up about as follows: Wheat, 42,000 acres; barley, 56,000 acres; alfalfa, 40.000 acres; vineyards and orchards, 20,000 acres; miscellaneous products, 10,000 acres. The grain yield averages about 14,000 pounds of wheat and 1.800 pounds of barley to the acre. Upon many of the grain farms, as soon as the yield is sacked. the plows are started for a fall crop of corn, which is harvested in October. in ample time for seeding the land to the next year's crop of barley. Despite this almost constant cropping, the soil in no instance shows evidences of impoverishment. for, in addition to the natural strength of the soil, its life is being continually renewed by the rich sediment brought down by the rivers in their annual rises, and distributed over the land through the irrigating ditches.

Alfalfa. or lucerne, is a forage plant dear to the heart of the local agriculturist. Not a farm is complete without a liberal pasture of it. Dried or growing in the field, nutritious and available at all times, it furnishes an unsurpassed feed for all kinds of live stock. When grazed, every acre will easily support two head of cattle or horses. or twelve head of hogs for the entire year. Tens of thousands of cattle are brought from the mountain ranges to the valley pastures, to fatten into prime condition on this wonderful clover. Baled, the hay is shipped to all points in the southern part of Arizona and Southern California, besides supplying the not inconsiderable local demand. The baled hay sells from $6 to $10 per ton, according to the season.

Much might be said under the head of fruit culture, especially after the writer had met Mr. J. W. Evans, one of the progressive business men of the city who is a grower of fruit himself. and one of the best posted men in the valley; he is always ready to furnish information relative to Arizona. A striking illustration of the sub-tropical conditions prevailing is shown in the illustration on page 9, of Mr. Evans' home place, which pictures to the life a magnificent fan palm and other plants of a tropical nature. The extent of fruit culture at present in the Salt River Valley is shown in the acreage planted to the different fruits and other crops as follows:

FRUIT.	ACRES.
Apricots	932
Peaches	580
Pears	436
Plums	70
Almonds	445
Oranges	1370
Figs	246
Lemons	7
Grapes	4210
Quinces	16
Strawberries	75
Blackberries	5
OTHER CROPS.	ACRES.
Alfalfa	40,000
Barley	56,000
Wheat	42.000

ADVANTAGES OF EARLY MARKETS.

Of this acreage in fruits but a portion is yet in full bearing, while the new planting for the present season exceeds that of 1894 by 25 per cent. The total shipments for 1894 aggregated between seven and eight million pounds of green and dried fruits. Of apricots some ten carloads were shipped, principally to Texas, Colorado, New Mexico, and to the mining regions adjacent to Phœnix. The dried product brought, on an average, about nine cents per pound. The output of peaches and almonds is still light, but of raisins from 20 to 25 carloads were cured and sold, while of pears about four carloads were transported. The aggregate shipment of oranges as yet is light, though the yield is constantly increasing. Of other products than fruit the exports consisted of 100 carloads of wool. 30 carloads of honey, upwards of 1.000 carloads of alfalfa hay, 20 carloads of alfalfa seed, while the total amount produced was over 30 carloads. The seed brought about seven cents per pound. To return to the fruit problem. Fresh apricots were shipped about the middle of May, or some four weeks earlier than the fruit of Vacaville; peaches were in condition to harvest by the first of June. Vegetable shipments were also considerable, though statistics are not at hand. The demand for these early products just at a time when the northern and eastern markets are bare of fresh fruits and vegetables, is greatly in excess of the supply. Mr. S. Goodman, who is a recognized authority on the subject and an extensive buyer and shipper in Phœnix, expresses the opinion that the early fruit and vegetable business is destined to be one of the most profitable lines of horticultural production on the Coast. Not only are the growers of the Salt River Valley favored by climatic conditions for the production of early fresh orchard and garden crops, but at the same time they enter a market that is peculiarly their own, free of competition, and one in which they are always insured of a profitable price. The leading markets of the East—Denver, Omaha, Kansas City, Chicago, St. Louis, Cincinnati—not to mention the large demand emanating from the mining districts, will take all that can be produced for a series of years to come. The range of fruits is indeed a wide one, the Salt River valley producing successfully oranges, lemons, figs, almonds, dates, pomegranates, olives. apricots. peaches, pears, quinces, nectarines, apples, prunes, plums, cherries, persimmons, all the small fruits, particularly strawberries, grapes in variety, the walnut, the peanut, the pecan nut, etc. The future of the country as a center of horticultural production is thus assured.

DIVERSIFIED FARMING.

Diversified farming is made more easy in Arizona, and particularly in Maricopa county, than it is in portions of Southern California. In the first place the price of land with water for irrigation is cheaper, thus enabling the farmer to devote a part of his soil to other uses than fruit culture. It is not always wise to place all one's eggs in one basket. or to drive one's ducks all to one market. As side issues to fruit production, the wise planter will have a few acres in alfalfa to support a few thorough-

A GROUP OF DATE PALMS.

bred cattle and a few hogs and chickens; a small patch will be grown to general garden truck, and if possible, a patch of corn and of barley will be found valuable adjunets to fruit culture. The person having a liking for live stock—the breeding of thoroughbred horses and cattle, the production of first-class mutton-sheep, and the growing of hogs on a large scale—will find this section of Arizona admirably adapted for such purposes. Indeed, it is being pressed home to the orange growers of California, that even they must resort to a more diversified system of husbandry than the mere production of oranges. The fact is becoming recognized that the wise farmer will produce nearly every article consumed on the farm. To buy every article of consumption at retail but the oranges consumed on the family table has not proven entirely satisfactory. No one can miss it in observing these conditions and complying with them in engaging in agricultural pursuits in the Salt River Valley.

Sub-tropical conditions are more or less prevalent in Arizona. Date palms are quite a feature of these localities. The illustration shows a group of these plants on the Bartleson ranch, in Pinal county. Thrifty young palms of the same variety are also quite common in the Salt River Valley.

IMPORTS AND EXPORTS.

The commerce of a city is always an unerring index to its prosperity. The following table of exports and imports—kindly supplied by Mr. Bruce Perley, secretary of the Phœnix Chamber of Commerce—is only in a measure reliable. In the first place it is a year old, and hence does not give any idea of the volume of business done at the present writing. In the second place it gives figures over but one railroad, before the commercial interests of Phœnix were freed from the grinding and oppressive monopoly of its shipping interests by the Southern Pacific railroad. Under more reasonable charges and less exacting conditions the volume of business would have been much larger. It serves, however, to show that even under the grinding heel of railroad monopoly the business of the Capitol City did not waver, but grew in volume and importance as the years went on:

Average annual tonnage, in pounds, of the Salt River valley ceipts and shipments via. U & P. R. R., for the year ending 1893.

ARTICLES.	IMPORTS.	EXPORTS.
Apples	29,000	
Flour	403,460	524,632
Canned goods	377,839	107,450
Nails	77,890	
Furniture	260,527	
Sugar	905,315	
Horses	60,000	70,000
Grain bags	145,480	
Emigrant outfits	1,084,670	20,000
Lumber, lath and shingles	14,040,623	
Roofing iron	122,715	
Coal and coke	283,025	
Oil (coal and crude)	566,447	
Lime and cement	1,265,265	
Ice	202,560	
Wagons and agricul. mach	1,463,185	
Salt	376,840	
Trees	196,000	
Beer and liquors	1,322,948	
Wire	245,964	
Iron and iron pipe	792,585	
Potatoes	1,747,856	
Stoves	126,345	
Packing house products	612,592	
Sewer pipe	1,085,400	
Merchandise	7,191,447	1,134 679
Telegraph poles	278,290	
Railroad ties and rails	1,623,670	
Beans	430,111	
Stone	380,310	
Wheat		1,427,940
Barley		9,505,519
Hay		10,263,415
Cattle		10,831,000
Paint	21,390	
Hogs		860,000
Sheep		750,000
Straw		60,000
Dried fruit		306,744
Green fruit		198,700
Beer bottles (empty)		164,895
Bran		943,064
Hides		72,235
Wool		305,221
Ore		594,802
Honey		446,860
Onyx		190,937
Raisins		325,580
Beer kegs (empty)		142,280
Alfalfa seed		62,250
Cactus		20,000
Totals	37,919,749	39,723 603

What of the Future?

The world knows only the present. We cannot recall the past, neither can we command the future. To be sure the poet tells us that "coming events cast their shadows before." Arguing from what has been and is being accomplished in this inland empire who can predict its future? That it is destined to be great, there can be no question; that it is to support a dense population, is conceded; that its agriculture and horticulture is to rival that of California and in some respects excel it is a foregone conclusion; that its precious metals and valuable stones are to bring untold wealth as a reward for energy and toil in their development is self-evident; and that with this onward march railroads will multiply and towns increase is but a natural sequence. The completion of the Santa Fé, Prescott and Phœnix railroad, connecting the above towns with the main line at Ash Fork, marks an epoch in the development of the country. It affords the necessary competition and opens up a new field with new markets. A change for the better is already noticeable; the demeanor of the employees of the Southern Pacific is more humble, more obliging. Courtesies are less scarce, and politeness—always cheap though often rare—has given place to hauteur. These are indeed auguries that speak volumes for the future.

Arizonians, let us hear from you in subscriptions.

THE PHŒNIX CHAMBER OF COMMERCE.

Like Los Angeles, the entrprising people of Phœnix appreciate the value of a Chamber of Commerce, modeled upon the lines of our own Chamber. The permanent exhibit of fruit maintained is indeed superb, covering every article of soil production of the great Salt River Valley. The showing of minerals—gold, silver, copper, etc.—valuable building stone of different kinds, the lumber resources of the Territory, besides its mercantile and manufacturing interests, is an object lesson well calculated to attract the stranger to Arizona, and convince him that she has resources and advantages of no mean quality.

BRUCE PERLEY,
Secretary Phœnix Chamber of Commerce.

The secretary of the Chamber is Mr. Bruce Perley, a young man of executive ability, charming manners, and well known probity of character. Mr. Perley brings to his duties a varied experience, not the least of which was his taking charge of the exhibit of his county at the late Mid-winter Fair in San Francisco. He has the happy faculty of impressing the strangers that daily visit the Phœnix Chamber of Commerce, and is a recognized factor in the prosperity and progress of that section.

THREE REPRESENTATIVE ARIZONA NEWSPAPERS.

The intelligence of a community is largely guaged by the character of its newspapers and the support accorded to them. Poor papers are only tolerated in a dull and shiftless community, and just in proportion as a town is imbued with energy and a high class of intelligence, in a corresponding ratio will this be reflected in its newspapers. Guaged by this criterion, Arizona at once impresses as being settled by an intelligent class of people who patronize the local papers well. No section of country can boast of better journals, considering the present population and industrial development.

THE ARIZONA DAILY GAZETTE.

At least upon the Democratic side of the political barrier, the main journal of Arizona is the daily Arizona Gazette, of Phœnix. It dates its existence back to the fall of 1886, when it was started by an association of printers. It has prospered well, and its issue now comprises eight pages, well filled with the news of the day, entertainingly presented. Especially notable is it in its southwestern field for the quantity, originality and excellence of its local and territorial news. In tone it might be called intensely Arizonian, and editorially is ever decidedly aggressive. Though true to its Democratic affiliations, the Gazette, under the editorial management of J. O. Dunbar is refreshingly independent in criticism of men and measures. The hold it has secured upon the people is clearly evident in the well-filled advertising pages and in its evident heavy circulation.

The special issues of the Gazette in the past have received well-deserved high praise, the World's Fair edition of '93 showing its capabilities in that line. March 12th will be placed on the counters of the newsdealers a twenty-four-page railroad edition, issued as the Gazette's contribution to the rejoicing incident to the completion to Phœnix of the Santa Fé, Prescott & Phœnix Railway. The work is under the charge of City Editor J. H. McClintock, whose long experience in the compilation of immigration literature especially well fits him for the task.

THE PHŒNIX DAILY HERALD.

This paper was established in 1878, and from its inception has commanded a splendid patronage and wielded a wide influence in the political and industrial affairs of the Territory. It is Republican in politics—but not partisan in its party fealty, exercising an independence in the discussion of public questions that is refreshing in these days of back-kitchen political methods and boodle politicians. In its treatment of non-political subjects The Herald has always been broad and liberal, while in its advocacy of Arizona's best interests it has always shown itself an able champion. The Herald is an able paper and reflects credit upon its editor and proprietor, Mr. N. A. Morford.

THE PRESCOTT JOURNAL-MINER.

Once in a while luck falls to a newspaper man in the shape of recognition of his services to his party. Thus the voters of Prescott sent Mr. J. C. Martin, who presides over the destinies of the Journal-Miner, published at Prescott, to the Territorial Legislature. Mr. Martin wields an able pen and furnishes the people of Prescott and the tributary country an excellent paper. As a mining authority the Journal-Miner is recognized, and often quoted.

MOUNTAIN SCENE ON THE S. F., P. & P. RY.

THE BASHFORD-BURMISTER COMPANY.

One of the representative business houses of Prescott is the Bashford-Burmister Company, general merchants and dealers in miners tools and supplies, agricultural implements, wagons, etc. They are headquarters for all mining supplies for a radius of 50 miles surrounding the corporate limits of the city, and probably

do a larger wholesale and retail trade than any other one single firm in Arizona. Their annual transactions foot up to the handsome sum of $350,000. The extent of their business is indicated by the large and substantial three-story building they occupy, all of which is utilized by their business exclusively. In addition to their mercantile interests they also are interested in mining enterprises, and take an active interest in the building up of the town and surrounding country. THE RURAL CALIFORNIAN is under obligations to Mr. Burmister for courtesies received and for much of the information embodied in our extended descriptive article on Arizona, and particularly the country through which the Santa Fé, Prescott & Phœnix railway wends its way.

MARICOPA LOAN AND TRUST COMPANY.

This is the name of one of the leading corporations of Arizona dealing in real estate securities and promoting legitimate enterprises. Mr. T. W. Hine, who is the general manager and cashier, informed THE RURAL scribe that his company was in a position to suggest some lucrative investments in land and water development, and invites correspondence from capitalists and investors. The Company enjoys an enviable reputation for sound financial management. Letters addressed to T. W. Hine, general manager, Phœnix, Arizona, will be promptly answered and given every consideration.