

COCHISE COUNTY
ARIZONA



Cochise County

WHERE well within the memory of living men the most dreaded of American Indians held full sway, today is the most progressive, most prosperous, wealthiest and most populous region in the young state of Arizona.

In the southwestern part of Arizona the fierce and bloodthirsty Apache, most to be feared of Redskins, made their homes. In its rugged mountains they had their retreats, whence they sallied forth to massacre, burn and pillage, spreading terror and devastation on all sides. In its valleys they hunted deer, the antelope and other game.

Today prosperous mining camps are in their mountain fastnesses and farms and ranches checker their valleys. In the foothills herds of sleek cattle, numbering in the thousands, range and graze peacefully.

Cochise County takes its name from a famed Apache chieftain, Cochise or Cachise, as it is differ-

ently spelled. His stronghold in the mountains was almost inaccessible to an attacking force and there he long held dominion. It is still one of the interesting sights that is pointed out to wondering visitors and sightseers. And it was in these mountains that Geronimo found refuge and from them that he conducted many of his raids.

On the Atlantic Seaboard there are three sovereign states, neither of which can boast of being so large as is Cochise County. Two of them combined, Connecticut and Rhode Island, while 13 square miles larger in combined area, still have a smaller land content within those borders. To traverse it from north to south or from east to west is as long a journey as from New York City to Easton, Pa., And yet this county ranks ninth in Arizona, territorially, while it is first in point of population and so far distances all others in taxable wealth as to defy any comparisons. It is the little giant of Arizona.

In its area of 6170 square miles of surface Cochise

County offers extremes of elevation ranging from 3300 feet above sea level in the lower San Pedro Valley to 11,000 feet in the higher peaks of the Chiricahua and Huachuca mountains. Hence wide climatic variations are to be found both of temperature and of moisture. The precipitation is heaviest in the mountains and lightest in the valleys and even the various valleys and sections of valleys offer variations in rainfall, often as much as twelve inches in the year

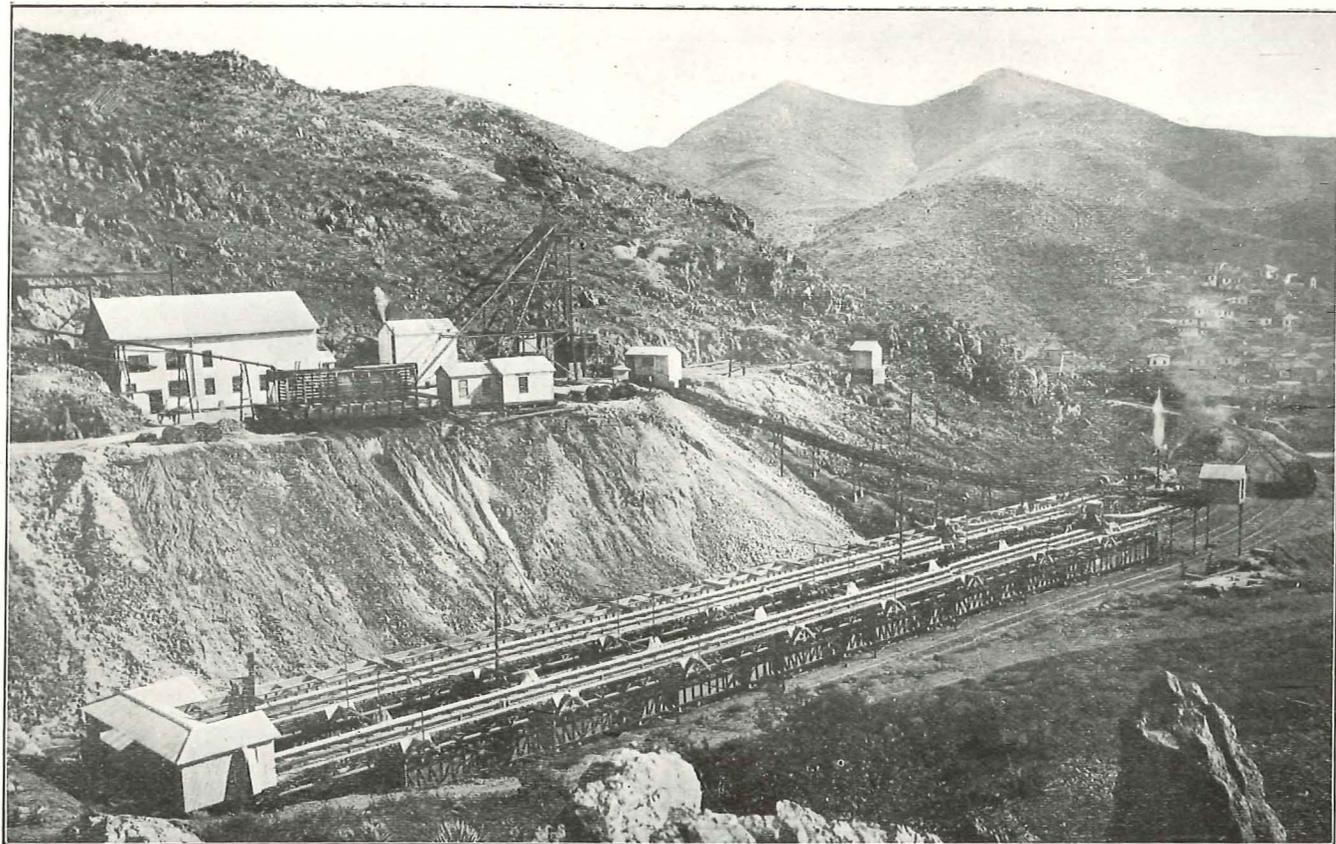
With such broad territory and variations of altitude and climate Cochise County affords wide variety in choice of occupations and industries. These range from mining and smelting to cattle, sheep and goat raising and through various methods of agriculture and horticulture. In the lowlands forage crops and gardening prevail while in the mountain sections the finest of fruits and grapes, equalling in appearance those of the Pacific coast but possessing the flavor of the eastern product, are freely grown. In all sections of the valleys and on the hillsides only the touch of water and cultivation are needed to work the wonders of a magic wand.

As stated, Cochise is one of Arizona's smaller

counties in point of territory. It has long vied with Maricopa County for premiership in population and according to U. S. census estimates of January 1st, 1915, now has a population of 47,957 while that of Maricopa is 41,889. From estimates of the census bureau it appears that one sixth of the entire population of the state are to be found within the Cochise borders.

In point of taxable wealth Cochise is far in advance of all other counties, with an assessed valuation of \$102,369,325. This gives the remarkable per capita wealth for every man, woman and child resident of the county of \$1955. It pays 23 per cent of all the taxes of the state. Its mines produce one-tenth of all of the copper mined in the United States. Producing mines pay taxes on a valuation of \$59,278,904; its smelters on \$5,510,903, and all mining properties are assessed at upwards of \$66,000,000, so it is evident that the mines bear the real burden of taxation. It is crossed from east to west by the El Paso & Southwestern and Southern Pacific railways and has more miles of railway than any other Arizona county.

The county is traversed in generally northerly and



SACRAMENTO SHAFT, BISBEE

Chief Hoisting Shaft of Copper Queen Consolidated Copper Company, Average Daily Output 6,000,000 Pounds of Ore.

southerly direction by three important mountain ranges, the storehouses of vast mineral wealth where, in places, mines have been developed into wealth beyond compute while in other sections the surface has been as yet hardly more than scratched, though indications of mineral deposits are clearly in evidence.

These mountain ranges trisect the county into three important valleys, the San Simon on the east, Sulphur Spring, most central, and San Pedro on the west. It is in these valleys and in the mountain foothills that agricultural and horticultural lands are located though in the mountain canyons, in instances, there are splendid orchards and vineyards.

There is hardly to be found a part of the county where excellent schools do not await the children of the settler. Education of the young has from the earliest settlement of Cochise County been considered by its residents as a primary duty of the greatest and most fundamental importance. With this end in view more than 70 school districts have been established in the county and more than a quarter of a million dollars is annually spent for their support and maintenance, this not including new buildings nor enlarge-

ment nor improvement of old. There are employed in these schools 225 teachers at the highest salaries paid in the west. Male teachers receive on an average \$112.50 per month and women \$84. The average monthly salaries of teachers of both sexes approximately \$90 per month. The investment of the county in school buildings and equipment is \$350,000 and during the present year over \$125,000 will be added to this investment in school properties.

Of special interest to those purposing a location in the county the following climatological figures may be given. They show for each observation point in the county the mean average temperature, extreme highest, extreme lowest and the total rainfall for the year 1914 and in the order mentioned.

Benson	62.8	104	19	14.60 in.
Bisbee	60.5	97	21	26.68 in.
Bowie	65.4	107	21	19.96 in.
Cochise	60.4	102	21	18.01 in.
Douglas	61.9	99	18	23.75 in.
Ft. Huachuca	60.6	96	23	25.57 in.
Paradise	53.6	93	8	26.63 in.
Pearce	60.8	104	19	21.19 in.

Tombstone	63.3	103	22	19.78 in.
Willcox	61.1	104	10	20.16 in.

The Government report does not give temperature figures but gives rainfall for the following points in the county: El Dorado, 26.99; Hereford, 16.11; Lewis Springs, 16.68; Nace, 17.2; Osborne, 20.96; Portal, 26.35.

The elevations of some of the principal cities and towns are Benson 3575, Bisbee 5300, Bowie 3759, Cochise 4220, Courtland 4660, Douglas 3966, Dragoon 4614, Paradise 5500, San Simon 3609, Tombstone 4536, Willcox 4164. To the prospective resident of the county there is then offered a wide choice in altitude, temperatures and rainfall. There are sections of the county that are more than others adapted to those seeking restoration to health from tubercular, bronchial, pulmonary or other similar troubles in particular instances, and the opportunity of securing the ideal elevation and rarity of atmosphere, a greater or lesser degree of atmospheric moisture is presented.

Unlike many other counties of the state Cochise does not pay a heavy toll in deaths from tuberculosis.

Of 632 deaths occurring in the period of a year 87, only 13.8 per cent fell victims to the white plague. Indeed pneumonia and similar respiratory diseases were more fatal claiming 139 victims. Infant mortality would not be high were it not for a certain class of Mexican residents prevalent in all parts of Arizona, though less so in most parts of Cochise County. Nearly 30 per cent of the deaths, 189 were of children under 5 years of age, and 237, or more than one third of all the deaths were from among the Mexican population, where poor nourishment, impoverished conditions and lack of knowledge of sanitation swept death's scythe. In the same 12 months there were 711 births in the County. A study of vital statistics shows that despite the vast army of men employed in the hazardous occupation of mining, with its attendant hardships mortality in the county is remarkably low.

TAXABLE WEALTH OF COCHISE COUNTY.

2,564 acres of irrigated lands	\$ 130,122.50
1,144 acres cultivated in Land Grants....	57,186.00
342,419 acres grazing and "desert land"...	1,954,582.13
51,437 acres other land grants	189,000.00

Producing patented mines	59,278,904.78
Non-producing mines	1,078,386.59
Smelters, Millsites, etc.	5,510,903.30
Town and city lots	4,500,000.00
Improvements on same	5,000,000.00
Banks	976,790.01
Stock and Cattle	2,900,000.00
Railroads and Street Railways	16,789,990.00
Telephone, Telegraph and Public Util- ities Companies	1,322,630.00
Stocks of Merchandise	1,831,498.01
All other Taxable properties	849,230.34
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Total Assessed Valuations	\$102,369,325.64

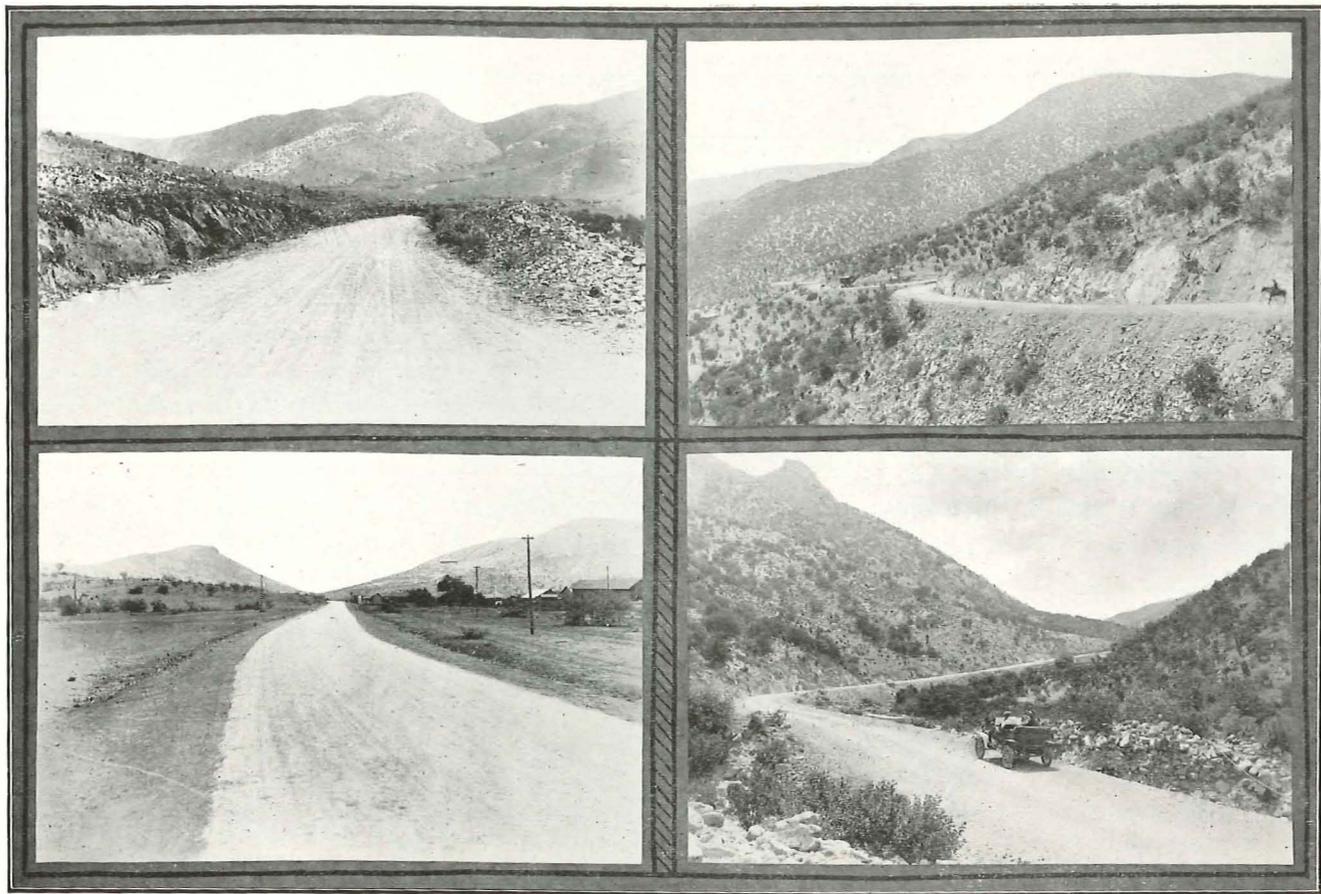
ROADS AND HIGHWAYS

AS THE largest and most progressive county of the state it is to be expected that Cochise County should be a leader in all matters of public improvement and betterment, including road building and construction. In this Cochise County does not disappoint. Its large assessment roll enables an annual expenditure for the building and upkeep of county roads than

other counties are able to make and it receives a larger proportion of state road funds than do other counties.

The state highway system will traverse its southern end from side to side, from the New Mexico line to the border of Pima County, forming a part of the Borderland Transcontinental Tourist route. This highway is completed from Douglas, through Lowell and Bisbee across the mountains toward Tombstone and work upon it is being continued at this time. The mountain road out of Bisbee is the finest piece of road construction to be found within Arizona as well as being one of the most scenically beautiful. It is the wonder of tourists to find a veritable boulevard built upon mountain sides, hewn out of the solid rock in the youngest of the sisterhood of states.

The Borderland Route proper runs from El Paso to San Diego and Los Angeles. It connects at El Paso with routes from Galveston, New Orleans and Fort Dodge, Kansas, and is the only transcontinental route that is open winter and summer, 365 days in the year. Its southerly course gives it freedom from snow blockades in the winter which other routes cannot



COUNTY HIGHWAYS

Upper left, Bisbee-Douglas Highway; Lower Left, Paved Road Leading to Warren; Upper Right and Lower Right, Beautiful Scenic Highway Between Bisbee and Tombstone.

boast. That racers can maintain a speed of 35 miles over it from one border of Arizona to the other is an assurance to the tourist that travel is free from difficulties and at no time are they any distance from supply stations. A journey may be made in short or long stages as desired. Accommodations are always at hand. Camping outfits do not have to be carried as an essential to comfort or as a necessary precaution.

Cochise County is spending upwards of \$100,000 per year on county road work, construction and maintenance. As the state spends some \$50,000 annually on its highway system in this county, the greater expenditure may go to roads not connected with that system.

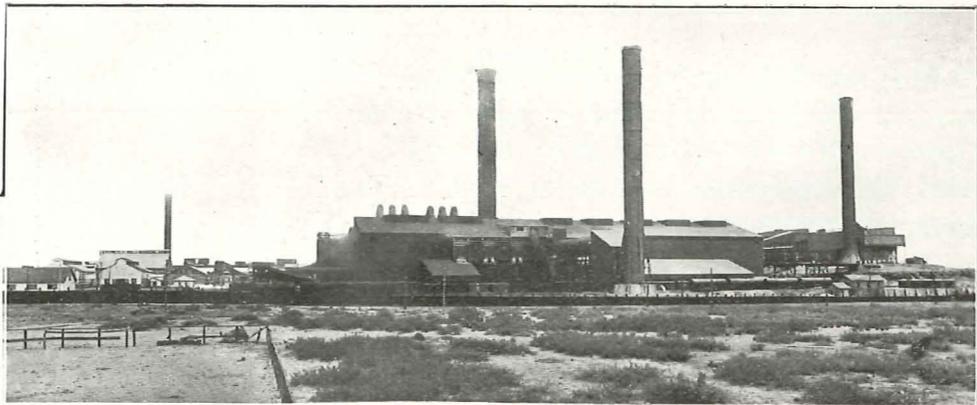
MINING INDUSTRY

LONG before the fierce Apache had been dislodged from his mountain retreats, about the time when the first cattle had been driven into the valleys to graze, came the prospector into what is now the County of Cochise in search of precious and the baser metals. It is to the hardy and dauntless pioneer prospectors that

Cochise County must owe its prominence and importance in the mining world.

It was but natural that in a country where railroad travel was unknown, and all transportation of any nature the most difficult and expensive, that the mere precious metals should receive first prominence. And so was it here. Tombstone and Bisbee had their first claims filed within a day of each other in 1877, but Tombstone was known the length and breadth of the land as a great silver camp, when Bisbee was hardly heard of. For years the great gold-silver mines of Tombstone and Charleston gave to Cochise County its importance. But with development the Copper mines of the county have taken first position in its resources. While primarily copper producers, they also produce as by-products the major portion of the output of Gold and Silver of the County.

The mines of Cochise County, besides paying more than sixty-five per cent of the taxes, furnish far more than that proportion of the income of the residents. It is conservative to state that nearly 8000 adults are given employment in the mines and smelters of the mining companies of the county, while still other hundreds



GREAT COPPER SMELTING PLANTS

Upper, Calumet and Arizona Reduction Works; Lower, Copper Queen Reduction Works at Douglas. Annual Output 225,000,000 Pounds of Copper.

are employed in the engineering, clerical and mercantile forces that are on the pay rolls of these companies. And such labor is the highest paid to be found in the land. Thus more than one-half of the adult male population is engaged in the mining industry and it is the source of income and support to nearly half of the residents of the county, irrespective of age or sex.

Arizona produces 30 per cent of all of the copper that is mined in these United States. Forty per cent of Arizona's copper is produced in Cochise County, that is one-eighth of all of the nation's copper is from Cochise County.

Out of three and a half million ounces of Silver produced in the state, the mines of Cochise contributed 2,000,000 ounces or four-sevenths of the whole. With a state production of 200,000 ounces of Gold one-fourth of that amount, 50,000 ounces, comes from the Cochise county mines. Yet, even this wonderful showing leaves the surface of Cochise County barely scratched by mine development.

tricts offer opportunities and await the necessary development of their resources.

STOCK RAISING

IT IS BUT A FEW YEARS since all of Cochise County was the open range. Then agriculture was untried, and cattle grazed at the owners will in all parts of the great valleys of Cochise, as well as in the foothills. Today the range is much restricted, but the industry is of greater importance, has more capital invested in it and produces greater incomes than in these early days. True, they have been driven back into the foothills, but that there is still ample room, is shown in the classification in the tax rolls of 342,419 acres as "grazing or desert land."

The importance of the stock raising industry to Cochise County is shown by the item in the assessment rolls, "Stock and Cattle \$2,900,000." This item is \$2,000,000 in excess of the value of the stocks of merchandise carried by all the stores of the county. It is reached despite the fact of immense shipments last year at advanced prices for beef cattle. It shows

stock raising to be second in importance only to mining among the chief industries of the county.

The fencing of the range in the valleys, the taking up of the land for agricultural purposes has necessitated the concentration of herds in the foothills or on lands in the valley purchased or leased. Large tracts of school lands have been leased and other lands obtained by purchase by the larger outfits. Some ranchers have as many head as they can feed on their lands and find this highly profitable, but the bulk of the cattle raising business is in the hands of the larger outfits.

Few of the cattle from this section are shipped direct to market, but are sent to other sections of the country for fattening. Such shipments may range as high as 3000 head from a single shipping point in one shipment. Destinations are generally, Kansas, Nebraska, the northern states, California and the Salt River Valley in Arizona.

Cattle imports from Sonora, Mexico, are also important to this industry in Arizona and especially in Cochise county, the stock being crossed into this country and put on the range until fit for shipment. It

is thus that depleted herds are increased over and above the natural increase when necessity requires.

While range land is not plenty it can be obtained, and the opportunity offers for the man who desires to enter stock raising and that opportunity is accompanied by the incentive of higher prices than were ever deemed possible.

Horse raising is not extensively conducted in the county nor is sheep raising, but goats are raised with profit in several of the mountain sections. Swine have not been extensively raised, but with increased crops from agriculture, this is an industry that will receive considerable attention.

AGRICULTURE

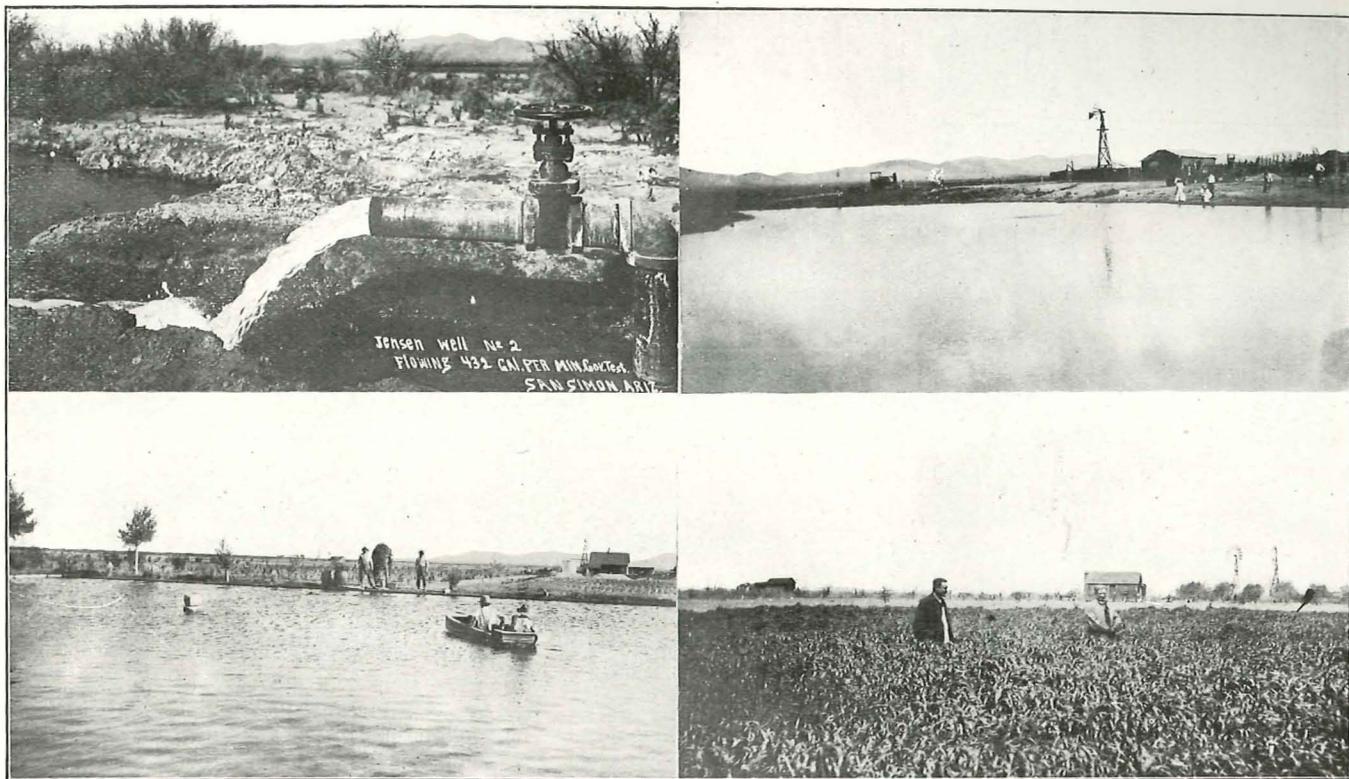
IN THE EARLIEST DAYS of settlement in Southeastern Arizona agriculture received slight attention. The mountains were prospected for their metals, the valleys were grazed by herds of cattle. Mining camps sprang up and became cities and towns. Cattle outfits established headquarters in the valleys. Railroads were built and along them towns sprang up.

It was not until intensive farming came into general attention the country over that agriculture was seriously undertaken in Cochise County. The valleys were termed "desert" and the idea that they were too arid for crop production was sedulously encouraged by the cattle interests. Along the San Pedro and where there were surface flows of water, in the foothills, or near them, where flood waters induced fertility some farming was done and some agricultural colonies grew up, as in St. David.

Experiments in "dry" or intensive farming early demonstrated the fact that there were certain quick growing crops, especially fodder crops, that could be profitably grown in practically all sections of Cochise county. When the rainfall reached the normal or was in excess of it, other crops might be grown, but such other crops were somewhat precarious. In altitudes such as prevailed in Cochise County and with the rare, dry atmosphere that prevails, evaporation was more rapid than in certain parts of the country where excellent results were obtained from intensive farming with less rainfall. But a further and more important fact was demonstrated. Where water could be put upon

the land almost any crop could be successfully grown. The market in the mining, smelting and railroad towns was close at hand. The incentive for agricultural effort was there. Water was needed and the putting down of wells began. It was found that with wind-mills small tracts could be cultivated, with pumping plants, larger ones. The solution of the problem was offered in a combined system of intensive farming with auxiliary irrigation from wells and with small pumping plants.

Water Supply Paper 320, issued by the U. S. Geological Survey in 1913, treats exhaustively of the water supply in the Sulphur Spring valley. There is much information in it which is applicable to conditions in the other valleys, however. In the Sulphur Springs Valley there are 410 square miles of land where water can be had at a depth of less than 50 feet; 220 square miles where it is reached at less than 25 feet, and 150 square miles where the depth of water is less than 15 feet. In all such areas of that or the other valleys auxiliary irrigation by pumping plants is practicable. At depths of 75 feet or more with fuel at prices at



Jensen Well No. 2
Flowing 432 Gal. per Min. Cont. Test.
San Simon Ariz.

AGRICULTURAL METHODS

Upper Left, Artesian Well; Upper Right, Storing Rain Water; Lower Left, Storage Reservoir Filled by Pumping Plant; Lower Right, a "Dry Farming Crop."

which it is now obtainable dry farming must be practiced.

Despite the rapid settlement of the valleys, the considerable amount of formerly public lands that have been taken over by the state in Cochise County and for the disposition of which no legislation has yet been enacted, there yet remain thousands of acres open for homesteading. Much of this land is in the mountains and is not adaptable to agriculture under present methods, much more is at a considerable depth to water, still more is in districts where alkali prevails in the soil, but there are yet open for location vast acres of desirable agricultural land.

San Simon Valley

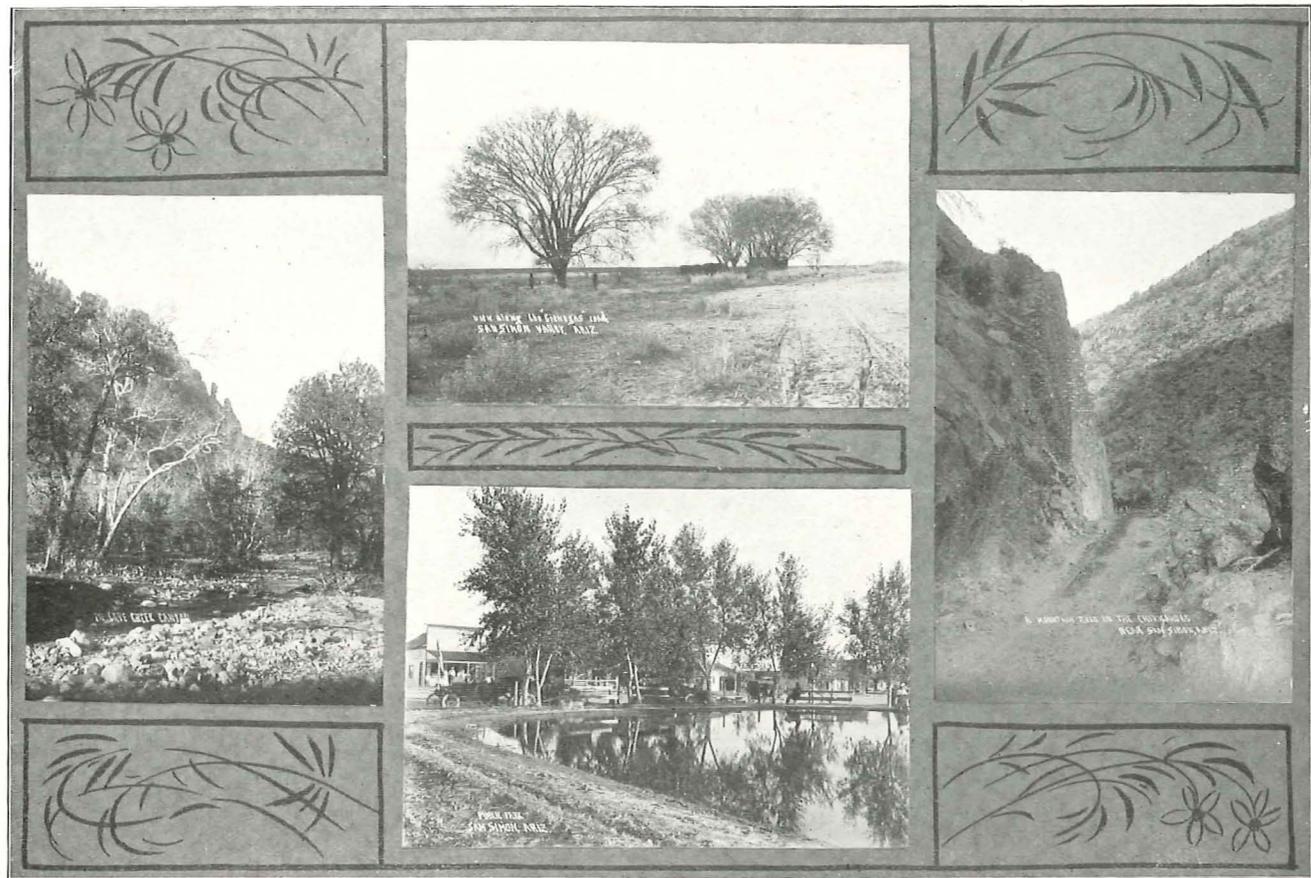
OF THE THREE VALLEYS which go to make up the agricultural lands of Cochise County San Simon is the most easterly, the smallest, so far as territory within the limits of the county is concerned, and the last to attract attention; through such attention has become widely spread since it is within this valley that one of the largest and most extensive

artesian flows, rivaling that of the Gila Valley was encountered. Hence irrigation from artesian wells is a matter of importance in this valley, while dry farming and intensive farming with auxiliary irrigation from wells and pumping plants are also employed.

The San Simon Valley has a general trend from Southeast to Northwest, from New Mexico into Graham county, where it connects with the Gila Valley. To the west of it are the Pedrigosa, Chiricahua and Dos Cabezas Mountains. To the South it connects with the San Bernardino Valley which extends on down into Mexico.

In the upper end of the valley east and south of Paradise the country has recently settled rapidly. Here intensive farming or with auxiliary irrigation from wells and pumping plants is practiced. Most of the settlement in this section is too recent for the settlers yet to have obtained patents and much of the land is subject to desert or enlarged homestead entry, 320 acres.

Southeast of Paradise, Cave Creek flows from the Chiricahua mountains through a box canyon that forms a perfect site for storage reservoir and dam. A



SAN SIMON VALLEY SCENES

Cave Creek Canyon, Public Park at San Simon, Cienega Where Artesian Flow Comes to Surface and Mt. Road in the Chirichuas

large part of the Chiricahua Mountains is drained through this channel and here it is expected that an important Government irrigation project will be located.

In the mountains horticulture grows in importance and fine peaches and other fruits are raised. The foothills are well adapted for grazing of horses and cattle and from the flood waters from the mountains small tracts may be irrigated.

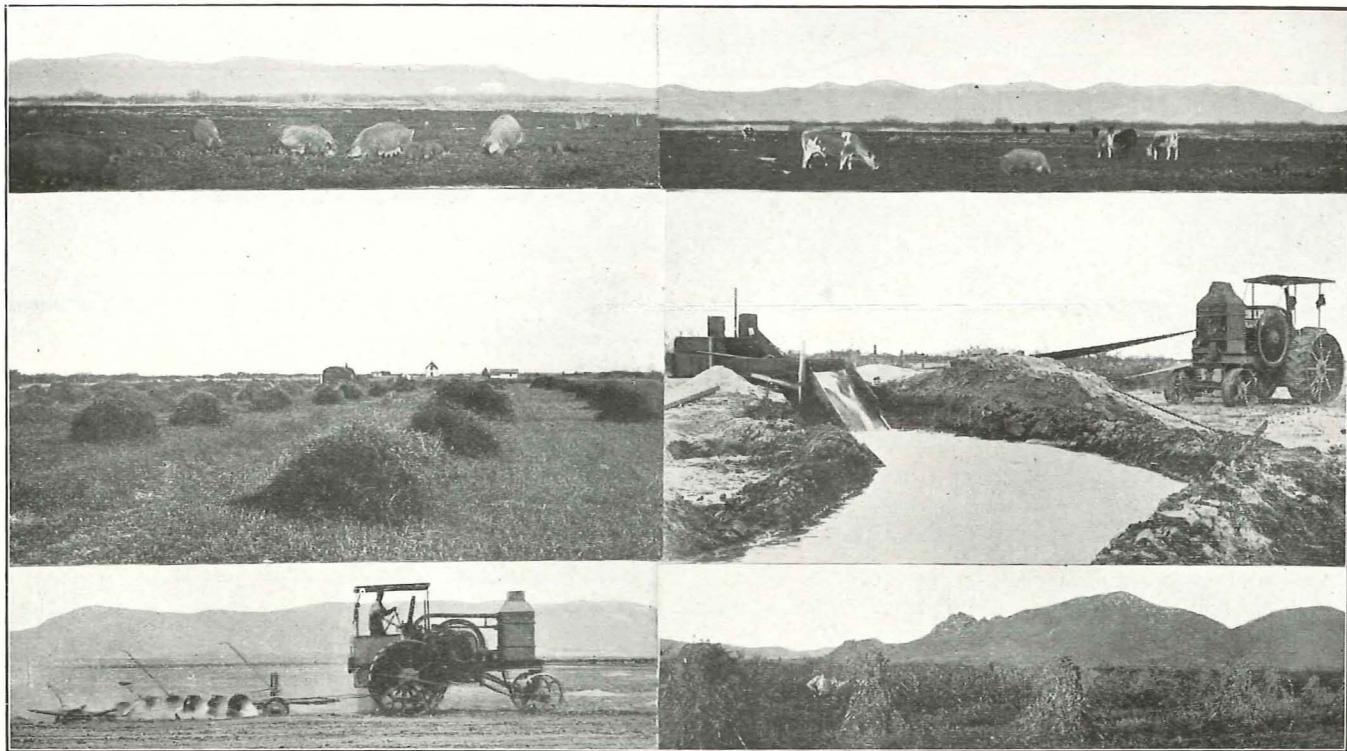
Northeast of Paradise and almost at the New Mexico line, is a cienega or swamp. It is surmised by some that an impervious formation rises close to the surface of the earth here and forces up the water of the artesian belt to the very surface. It is authentically stated that eyeless fish are found in this cienega and that there is a strong water pressure from below.

It is northeast of this cienega and to the eastward of San Simon that the artesian belt is located. At first drilling in the lower lands was undertaken, but it has been on the mesa above San Simon that the strongest flow has been encountered, and the most important artesian wells are located. It is this

belt that gives the town of San Simon its chief claim to importance. The proved artesian area includes upwards of 50,000 acres of very fertile land which is rapidly being put under water for cultivation. This proved land has all been entered and much of it patented. Already there are in it upwards of 100 flowing wells and others are being drilled. The flow varies from 100 to 600 gallons per minute according to location and manner in which the well has been put down.

Surrounding the artesian area there is another area where the water rises to, or very near the surface, and here pumping plants are installed and operated at a minimum of cost. The extent of such area is as yet undetermined but it is certain that in it there is some land that is yet subject to entry. There is also, outside of this second area, considerable land that is subject to enlarged entry, may be cultivated by dry farming methods, that are especially adapted for livestock ranches, of which a number have already been established.

The Bowie Valley, to the east of San Simon, must be, for general purposes included with the San Simon



WILCOX RURAL INDUSTRIES

Left to Right and Top to Bottom: Grazing Hogs in Alfalfa Field; Dairy Cattle and Hogs Grazing on Alfalfa; Pumping for Irrigation With Traction Engine; Plowing With Tractor; Egyptian Wheat Field. All in the Near Vicinity of Willcox.

Valley in the general valley systems of the County. Three years ago it was a vast cow range, today much of the free land has been taken up in homesteads and desert claims by settlers of the best class of American Citizenship.

The Bowie valley is a large mesa about 20 miles square in area, lying between the Dos Cabezas mountains on the south and the Grahams on the north, and opening into the San Simon Valley. It has its own local conditions of altitude, climate, rainfall, soil and water conditions.

Dry farming and auxiliary irrigation are the methods of agriculture practiced here. First water is usually encountered at 100 to 150 feet, but deeper stratas are encountered from 450 to 650 where the water rises to the surface or near it with an average lift of from 30 to 45 feet. A number of pumping plants with 800 to 1200 gallon capacities have been installed. A flow of 1000 gallons will irrigate 200 acres with 3 inches of water every ten days.

Dry farming crops are chiefly of the sorghum and cane varieties, but about Bowie, beans, wheat, oats, barley, garden truck, soudan grass and melons are raised

with only the natural rainfall from June to October. Winter crops, planted in September have matured and yielded good crops the ensuing May. Approximately 20,000 fruit trees have been planted about Bowie within the past three years and all have shown a fine growth without irrigation.

It is unnecessary to go into detail as to crops raised in the artesian belt. Grains, vegetables, fruits, all alike do splendidly and possibilities are practically unlimited.

Sulphur Spring Valley

LARGEST and most populous of the valleys of Cochise, is the Sulphur Spring Valley extending from north to south the entire length of the county and beyond its confines, the upper end being located in Graham County while its lower end runs on down into old Mexico. In width it has an average of more than 20 miles. It comprises an area of about 2800 square miles and nearly 1,000 square miles of bordering mountainous country shed their waters into it. It has an altitude ranging from 5,000 feet on its higher



WILLCOX AND VICINITY

Upper, Left to Right; Willcox High School, Reservoir on Ranch Near City, Grammar School; Lower,; Cattle Ranges and Pumpkin Fields

slopes to less than 3900 feet at Whitewater Draw, its lowest point. In its southerly end is located the Smelter City of Douglas, second in size and importance in the county while to the north is Willcox, important as a distributing point and as one of the greatest cattle shipping centers of the state.

Less than a decade ago there were not a hundred families engaged in agriculture in the Sulphur Spring Valley. Today it is dotted from end to end with prosperous ranch homes, its settlers run into the thousands and unappropriated lands are being rapidly filed upon.

This vast valley is a rock bottomed basin that has been filled with ages of accumulations of the detritus and erosions that have washed down from the mountains and hills so that much of the soil is a rich sand loam or a rich silt requiring practically no use of fertilizers for long periods after it is put under cultivation. This rich land is ready to bring forth prolifically under the touch of water and cultivation and under the rays of the warm Arizona sunlight.

The Sulphur Springs Valley is geologically divided into a north and a south basin, the former being generally known as the Willcox Basin and the latter

often the McNeal Basin though formerly more generally termed the Douglas Basin. A part of that section is directly tributary to Douglas while other parts are more tributary to Bisbee as market and supply station. Information as to such sections may be obtained from the Douglas Chamber of Commerce or the Warren District Commercial Club at Bisbee.

Relative to the McNeal Basin E. P. Grindell, secretary of the McNeal Board of Trade says:

McNeal Basin has an area of 500,000 acres of rich fertile land.

ELEVATION. The elevation of the McNeal Basin is three quarters of a mile, or an average of about 4,000 feet above the sea. Great mountains on every side rise to a height of eight and ten thousand feet, and are covered with great pine and oak trees.

SOIL. The soil of the McNeal Basin has been washing in from the mountains on the sides of the valley and is a rich, deep silt and sandy loam and susceptible of the highest state of cultivation without artificial enrichments. The soil is rich in lime and humus. The higher ground and foothills are especially adapted

to fruit growing as is shown by the many small bearing orchards.

To insure a good crop, and to supplement the rainfall, many farmers are installing pumping plants. The water is shallow and there is plenty of ground water everywhere. The average lift is fifty feet. These pumping plants cost from \$1,000 to \$1,500 according to type of machine and size. These engines burn a cheap fuel selling at McNeal for seven cents a gallon. These plants will supply from three to seven hundred gallons of water per minute and will irrigate 40 to 80 acres, according to the crop planted.

McNeal is a new town and in the center of the McNeal Basin. It is twenty miles north from Douglas, which is on the line of Old Mexico, 23 miles northeast from Bisbee, 19 miles Southeast from Courtland, 50 miles south from Willcox, 218 miles west from El Paso and 670 miles from Los Angeles.

As the Sulphur Spring Valley develops, McNeil will develop into a prosperous farming and school town. There are at present two stores, hotel, opera house, lumber yard, new school, blacksmith shop and fifty happy people.

Willcox

H. J. Parmley of the Willcox Board of Trade gives the following information relative to Willcox and the Willcox Basin:

DEVELOPMENT of the semi-arid open range country of the Northern Cochise County Valley lands has been gradual and permanent. Willcox, long famed as a cattle shipping point on the Southern Pacific Railroad is today an incorporated city of promise, in what is destined to be one of the richest and most intensively cultivated irrigated valleys of the Southwest country.

Situated near the center of the North Basin of the Sulphur Spring Valley, 230 miles west of El Paso, Willcox serves as the wholesale distributing center for a wide section of country. Freighters carry supplies to mining camps which lie more than sixty miles to the northwest, and more than forty miles in the other direction.

The State Reform school, situated upon the site of the Fort Grant army post of days now historic, some thirty miles north, runs a daily auto truck carry-

ing mail and supplies from Willcox. Dos Cabezas, eighteen miles east has a railroad line connecting the two points. Sulphur Spring Valley is over one hundred miles long, and as a center of the mining industry around the northern portion of the Valley, Willcox is the hub or center. East the Dos Cabezas Range, heavily mineralized with copper, gold, silver and lead, has reached the producing stage, with wealth of ores now in sight that will yield for generations yet to come, affording work for miners and markets for valley produce from the country surrounding. The Mascot Copper Mine is the leading property in this district.

As may be inferred, Dry Farming is practiced where the ground waters lie deep below the surface, and the results are marked and gratifying. Where the water lies at depths varying from 18 to 70 feet below the surface, irrigation by pumping is reaching a high state of perfection. Possibly some 20,000 acres of land in the vicinity of Willcox may be reclaimed by pumping.

Agriculture, horticulture, gardening, poultry, dairying and general stock raising are the backbone of

the valley lands round Willcox. All have been shown not only possible but profitable. Alfalfa is becoming the leading agricultural crop. The many small areas planted to alfalfa are being enlarged, and the older fields yield from 5 to 8 tons of hay annually and in addition supply pasturage for the winter and spring months.

Time was when the cattle industry held undisputed sway in this section. So far as exports are concerned it is still the leading industry. Nearly 1000 square miles of bordering mountain areas shed their storm waters into the valley. Many thousands of sheep and cattle graze upon these slopes the year round. Willcox is the leading shipping point for cattle from the open range on the S. P. Line in Arizona.

San Pedro Valley

The following information relative to the San Pedro Valley is furnished by Perry A. Burke, editor of the Benson Signal.

THE SAN PEDRO VALLEY lies in Southeastern Arizona, between the Galiuro, Driagoon, Bisbee

and Tombstone Mountains on the east, and the Huachuca, Whetstone, Rincon and Santa Catalina Mountains on the west. From these mountains many side streams enter the valley. It is crossed by the main line of the Southern Pacific Railway, about forty miles east of Tucson. It extends from the Mexican border at a point a few miles west of Bisbee north to the Gila Valley, a distance of 125 miles, where the San Pedro River, which traverses the valley its entire length, forms a junction with the Gila River at Winkelman. The valley has an average altitude of about 3500 feet and an average width of about twenty miles, including the mesa lands. It contains an area of 24,000 square miles or about one million acres of the most fertile and productive agricultural and grazing lands to be found in the state.

Of this area, approximately 50,000 acres will be irrigable from the Charleston project (termed by the government the San Pedro project). Of the river bottom lands, 2000 acres are now irrigated by gravity water from the San Pedro Valley through the Benson canal, and about 5000 acres irrigated by flowing wells and the St. David canal, which is also gravity water

from the San Pedro river. Several hundred acres are being irrigated under a private system of the Boquillas Land & Cattle Company and fully 2500 acres are being irrigated from small ditch systems from the San Pedro river north of Benson. This 10,000 acres is being rapidly brought into a high state of cultivation. In addition to these irrigated lands, some 2000 acres of mesa lands are being very successfully cultivated under the dry farming system. Until very recently this beautiful valley and the scenic splendor of its adjacent mesas and mountains were known only to a few cattle men, whose vast herds roamed at will over the valleys and mesas alike, growing sleek and fat on the nutritious grasses that grow in riotous profusion everywhere. The one exception to this condition was a small colony of early pioneers whose agricultural instinct led them to brave the hardships and perils of the frontier such as prevailed here thirty years ago. This colony settled at St. David, where they or their descendants still live, and where comfortable homes in the midst of fine orchards, broad fields of alfalfa, waving grain and corn, together with gardens of finest vegetables of every variety, and the landscape dotted

at intervals with flowing wells and reservoirs of pure sparkling water, which is easily developed in great abundance, is ample testimony of the wisdom of their choice.

Probably no other part of the country is as well adapted to the cattle industry as the San Pedro valley on account of the abundance of water and the heavy growth of native grasses, alfalfa, mesquite and other natural feed. The Boquillas Land and Cattle Company, one of the biggest outfits in the country, have their range in the San Pedro valley and the valley is noted for its cattle industry.

The soil varies from a rich, dark, sandy loam to a silt and decomposed granite of alluvium nature. In short, the wash from the foothills and mountains for eons of time has deposited over the floor of the valley a soil that in depth and fertility is not excelled by the richest delta lands of the entire country, a fact which is demonstrated by the enormous growth of vegetation, whether on wild or cultivated lands, while its depth has been determined by the boring of numerous artesian wells, which penetrate the earth to a depth

of from 200 to 500 feet. It contains no alkali or other elements injurious to plant or animal life.

Every variety of deciduous fruit is indigenous to this valley, where it produces in great abundance and of the very highest quality. We predict that the quality of these fruits will in a few years make the name of San Pedro Valley familiar in every market in the land. Such fruits as apples, peaches, plums, apricots, pears, cherries, etc., have been grown here in a commercial way for the last few years with such success as to make the industry a certainty in the future and has already attracted statewide attention. However, the staple crops of the valley are alfalfa, which is cut from five to six times, with an average yield of ten tons per acre for the season, and wheat, oats and beardless barley, which are seeded in September or October and harvested the following June, with a yield of from seventy to eighty bushels per acre each, after which the same land may be planted to corn about July first and will yield from sixty-five to seventy-five bushels per acre. These yields of course depend upon proper care and cultivation. Irish and sweet

potatoes are also grown very successfully and of fine quality, as are all vegetables.

Benson

BENSON IS A LIVELY TOWN of about 1000 population. It has one bank, large new opera house, weekly newspaper, good job printing office, several good hotels and cafes, rooming houses, two up-to-date garages, lumber yard, implement houses, several good general and department stores, telephone system, both city and rural, bottling works, meat market, blacksmith shops, commission business, etc. A band of twenty-five pieces has recently been organized.

Benson is the principal shipping point for most of the San Pedro Valley products, although few of them go far to seek market.

Benson and the surrounding rural districts have schools and educational facilities not excelled in any part of the state. There are seven rural schools within a radius of twelve miles of Benson, two of which are graded schools, employing two and four teachers

respectively, the latter of which embraces two high school courses. In addition to the graded grammar school at Benson, there is a modern Union High School, the building and grounds of which have a value of \$100,000. The school is equipped with every modern convenience and paraphernalia for such courses as manual training, domestic science, agriculture, and all of the academic courses. In fact, it is quite as well equipped in every particular and possesses as good a faculty as the more pretentious high schools of the cities. The agricultural department has forty acres of land, and on the place, in addition to the main school building, there is a gymnasium, swimming tank and buildings used in the agricultural course. Here actual farming is taught, both in irrigation and the dry farm system, under the supervision of the instructors of the agricultural department of the State University of Arizona. A large omnibus is used in transporting pupils living one mile or more from the building to and from school.

Bisbee and the Warren District

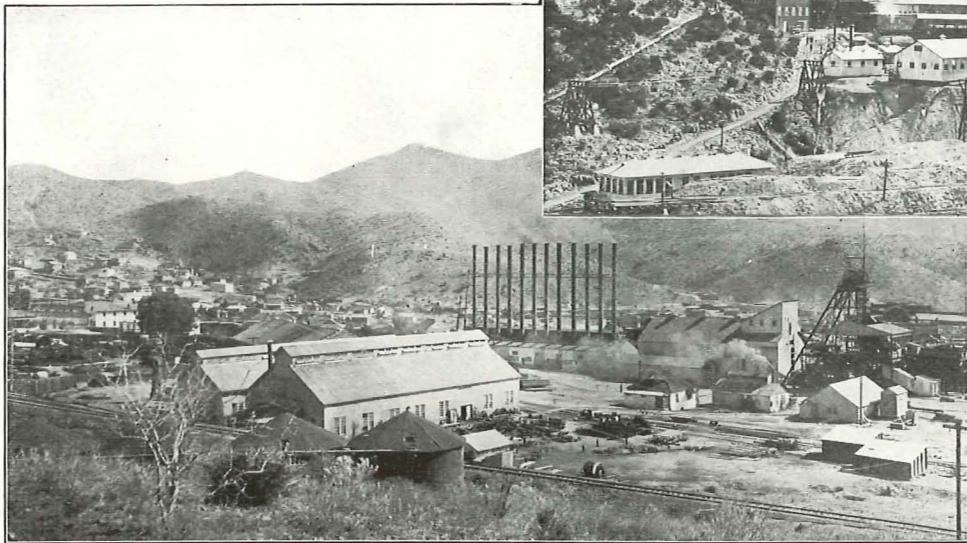
WHAT THE DYNAMO in the power house is to the great industrial plant, that is Bisbee and the Warren District to Cochise County. It furnishes the power and the energy to move the machinery of government. It is its chief source of wealth, progress and prosperity. It is more than a pulse, it is the very life blood.

Up in the Mule mountains in the southerly end of Cochise County is one of the greatest mining districts in the world, the second largest copper producing district of the United States. The incorporated city of Bisbee, its principal suburbs, Lowell and Warren and Don Luis and its smaller suburbs, all occupying less than seven square miles of surface, constitute the Great Warren District. In interests, in industries, in contiguity and continuity it is to all intents and for all but municipal purposes, one, single community.

Sixty per cent of the taxable wealth of Cochise

County is found in the seven mile area of the Warren district. Nearly half of the population of the entire county are within its narrow confines. Fifty-five percent of the banking resources of the county are furnished by its four banks. As Warren District prospers the county progresses and grows. it has been the principal factor that has made Cochise County the wealthiest and most populous of the State. Its mines produce 175,000,000 pounds of copper per year. With copper at 20½ cents, the quoted price at this writing, its out put from Copper alone in one year is \$35,000,000 to which must be added the value of its gold, silver and lead productions. Of this amount more than \$7,000,000 is paid back in wages and still other vast sums in enlargements, improvements and betterments by the mining companies. Its army of miners number over 5,000 men. The estimated population, with the utmost conservatism, is 14,500 for the city of Bisbee and 23,000 in the Warren District. The entire payroll of all the business and industries of the district closely approaches one million dollars a month.

Bisbee and the Warren District are not like other mining camps, unlike other cities. They are unique.



BISBEE MINING SHAFT

Upper, Shattuck-Arizona Mine; Lower, Junction Shaft of Calumet and Arizona Mining Co. Here all its Ore
is Hoisted and all Mines of District are Unwatered,

They possess and show a stability, a substantialness, an air of permanency unwonted in the general mining camp. Its location in canyons and upon mountain side differentiate it from other cities. Nature never prepared such a location for a city. She placed the metals within the mountains and during the quest for these, the building of a modern and up-to-date, progressive and prosperous city resulted.

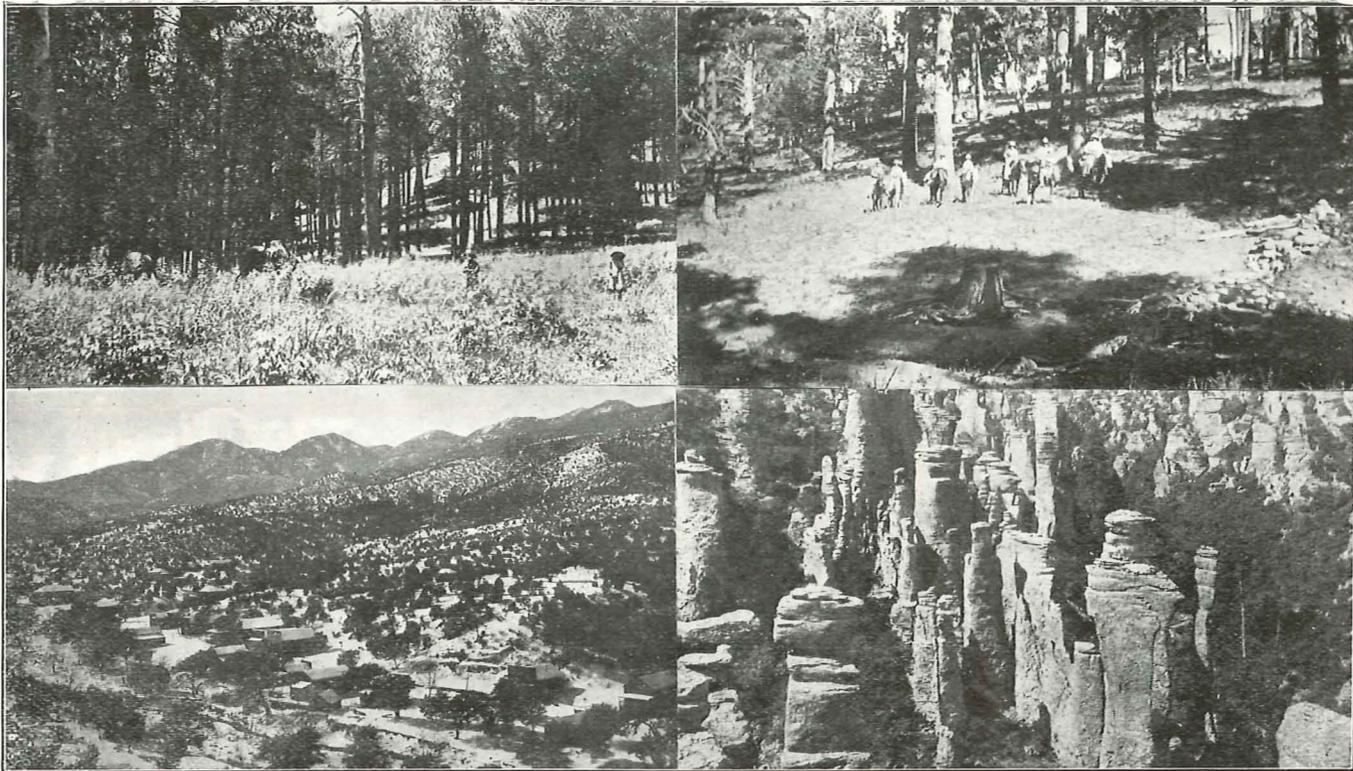
First interest in Bisbee and the Warren District centers about the mines. The value of their output for the year 1915 is estimated in copper, gold, silver and lead at between \$39,000,000 and \$40,000,000 from the properties of the Copper Queen, Calumet & Arizona and Shattuck Arizona companies and leasers who operate on a smaller scale. And, in connection with production, constant development is continued and there is more or in sight at the present time than ever before in the history of the camp, despite the fact that more than a billion and a half pounds of copper have been taken from them. No one ventures to predict the life of the workings now open and there are scores and hundreds of claims in the district, quite as promising in appearance as those that have in the

past proven rich, that are as yet undeveloped, unproved.

These mines have paid nearly \$175,000,000 in wages alone since the opening of the camp, the first claim having been located in 1877. It was not until 1881, however, that important production commenced.

Climatically there is little to be desired in the Warren District. The surrounding hills cut off the chilling winds of the winter and at night radiate the heat absorbed from the sun rays of the day, giving a decidedly higher winter temperature than in the open cities and towns of the valleys. Its elevation of 5300 feet insures comfort in the summer months when the maximum temperature is considerably lower than those of the cities of lower altitude.

The working shafts of the various mining companies are located in various parts of the district, some closely adjacent to Bisbee, others at and near Lowell, and still others more convenient to Warren and residences have been located for accommodation of the workers of the various shafts to some extent and further as to the adaptability of the country for that



MOUNTAIN SCENERY IN COCHISE COUNTY

Upper Left, Chiricahuca Forest Reserve; Upper Right, "Rustlers Park", a Summer Resort Near Paradise; Lower Left, Paradise; Lower Right Mountains in Bonita Canyon.

purpose. On the other hand, the chief business industries are located at Bisbee where are the largest stores, three of the banks, office buildings, public library, the company dispensaries, newspaper offices, churches, theatres and club houses. Lowell, however, has substantial stores, a bank, theatre and several club houses. With the exception of the C. & A. office building Warren may be termed essentially a residential section. Each of the two suburbs have their volunteer fire departments, sewer systems, electric lights and gas and other modern conveniences.

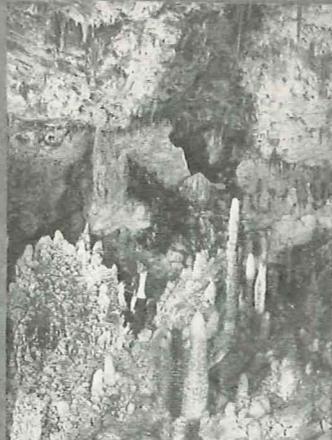
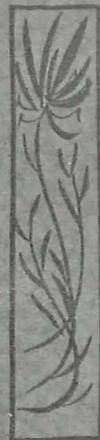
Right at Lowell is the Junction Shaft of the Calumet & Arizona Company, its chief hoisting shaft and from which all the mines of the district are unwatered. The Sacramento shaft, chief hoisting shaft of the Copper Queen Company is closer to Lowell than to Bisbee, and the other shafts are adjacent to Lowell. Those closer to Bisbee being the Southwest, Shattuck, Wolverine, Higgins, Czar and Holbrook. Lowell may be said to embrace in its limits Johnson Addition, Jiggerville, Upper Lowell, Bakerville and South Bisbee, all residential sections adjacent to mine workings. It has a population of 5000 to 6000, paved

streets, curbs and is but ten minutes from Bisbee by street car, 15 minutes service.

Warren was laid out to be what it is, a residential suburb of Bisbee. It is at the end of the Warren Street Railway, with half-hour service to Bisbee, the running time being 25 minutes. As stated, the Calumet and Arizona offices are located there. It offers the advantage of more level ground for homes than many other sections can offer, the homes being on a mesa or the gentle slopes of the hillsides. It offers the largest and handsomest park in the District where are well kept lawns, shrubbery and flowers and a band stand, where frequent concerts are held nearly every month in the year. Its homes have more grounds about them than the average homes of Bisbee and Lowell, and it has won for itself the name of "City Beautiful." It is just below Warren, where the Country Club is located, one of the most important social features of the district, with beautiful home, golf links, tennis courts and rifle range.

Warren has a population of about 2000.

In education, Bisbee and the Warren District are occupying a foremost position in the state. A new



BISBEE SCENES

Upper Left, Copper Queen Offices and Park; Lower Left Copper Queen Dispensary; Upper Right, Shattuck Cave;
Lower Right, \$80,000 High School Building.

\$90,000 high school, occupied only one year is at Bisbee, where are also located the Central School, a large brick structure formerly used as a high school and grammar school combined, the Lincoln School, a frame structure and a "segregated school for negro children. Lowell has a fine brick school building, as has Warren, also, the schools of the Warren District being all embraced in the Bisbee school district and number eight in all. For improvements and enlargements a bond issue of \$30,000 was voted last spring and is now being expended for the purposes to which it was appropriated. Thus largely increased school accommodations will be provided.

At Bisbee, also is located the Lorette Academy, a Catholic educational institution of importance, well conducted and with large attendance, and one smaller private school.

Both the Copper Queen and Calumet and Arizona companies have dispensaries in Bisbee and maintain their hospitals with efficient medical and nursing forces, the former hospital being located in Lowell, and the latter just outside of the easterly city limits of Bisbee.

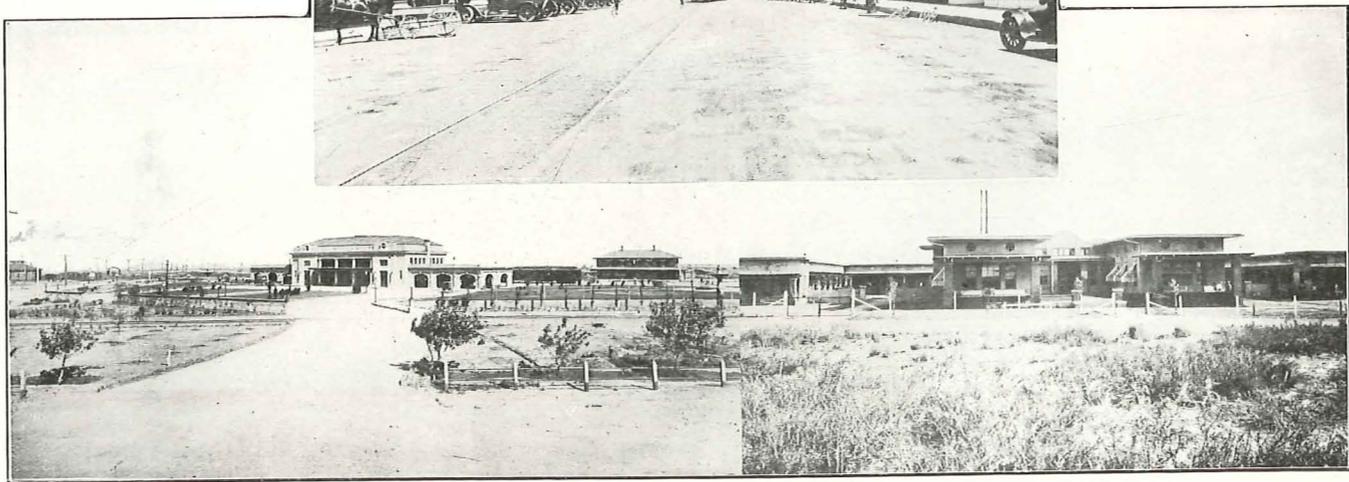
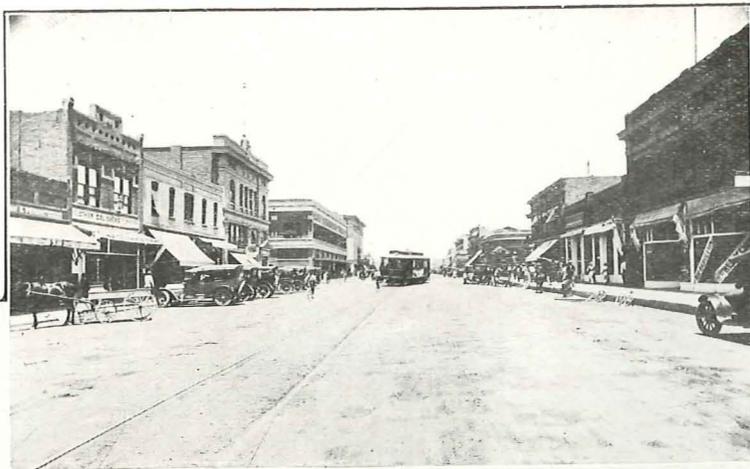
Further information relative to Bisbee and the Warren District and printed matter relative thereto, may be obtained by addressing the Warren District Commercial Club.

Bowie

WHERE THREE YEARS AGO there was but a lone depot, a store and hotel, is today a thriving and prosperous town. This is Bowie, the growth of which in three years, in percentage of increase, probably surpassed any town in the Southwest.

Bowie is located on the main line of the Southern Pacific and is the terminal of the Bowie, Fort Thomas and Globe branch of the Arizona and Eastern Railway which traverses the rich Gila Valley country of Graham County to the great mining camps of Globe and Miami.

Today Bowie has a population of 600, five general stores that are doing a prosperous business, three hotels, three restaurants, telephone service with its own exchange, opera house, moving picture theatre, blacksmith shop, garage, dealer in agricultural sup-



DOUGLAS, TYPE OF PROGRESS
Upper, G Avenue, Main Business Thoroughfare; Lower Left, E. P. & S. W. Railway Station at Douglas; Lower Right, County Hospital Near Douglas

plies and machinery, lumber yard, bank, a newspaper, bonded warehouse and numerous smaller business establishments of various kinds. It has a \$13,000 new brick school house, three churches, local repair shops and other buildings for the railroad and is headquarters for freight and passenger crews of the A. & E. railroad.

Douglas

DOUGLAS is rightly celept the "Queen City of the Desert."

The population of this beautiful place may conservatively be said to be somewhat in excess of thirteen thousand, with every prospect of topping the twenty thousand mark within the next half decade to come.

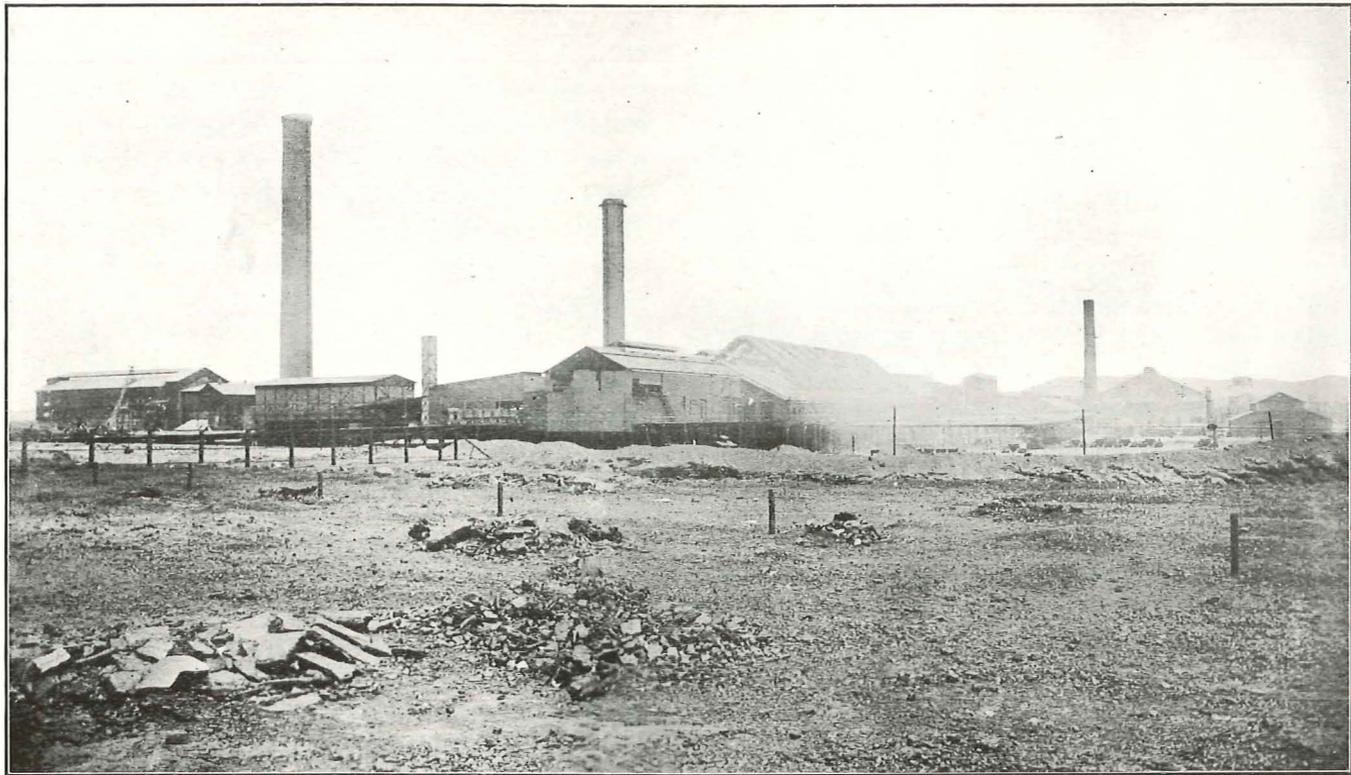
The growth of Douglas, though rapid and constant, has always been conservative and well ordered. Nearly all the facilities, utilities and necessities that make for a comfortable, attractive and beautiful city in which to live, are now hers.

Primarily, Douglas is an industrial city. It has been said of Douglas that she was built to order; and the beauty of the city and the adequacy and sufficiency and perfection of her every appointment, tend somewhat to lend the color of verity to the assertion.

Not only may Douglas be said to have been built to order, but her very location was predetermined for her by the two big mining companies who settled upon her site as the place best suited for their huge smelters. Douglas benefited incalculably from the preliminary work of the experts and scientists who determined the sites of the smelters.

No haunting fear was hers of an insufficient or failing water supply, none of an unfavorable topography that would not lend itself docilely and tractably to the problem of drainage—two considerations of no inconsiderable moment to desert towns.

The destructive and intolerable nuisance of noxious sulphur fumes, the kill-joy of smelter towns elsewhere, was solved for her, even to the point where



MAMMOTH REDUCTION WORKS

Copper Queen Smelter at Douglas Produces Over 125,000,000 Pounds Annually

trees and flowers and grasses adorn the homes, streets and parks of the city.

The climate of Douglas is ideally equable; clement and rigorless in winter, and innocent of super-heated periods in summer. In the Sunshine League, Douglas bats about .333 out of a possible .365; that is to say, a white, sparkling, sterilizing, health-insuring sunlight is hers for approximately eleven months in every year. Dreary, desolate, bleak days are unknown to the Douglas weather menu; and merely cloudy days are hailed with joy and availed of as gala occasions; and the rains, the gentle, benign and beneficent precipitations with which from time to time she is favored, meet with the same appreciation as do the other blessings which she has been invested.

The city of Douglas is practically without a "poor quarter." She has no squalid purlieus, no disreputable suburbs. Douglas is not wholly without poor, to be sure; but they are better housed and in more sanitary environment than in any city in the United States.

The schools of Douglas are Douglas' pride; its churches, with but few exceptions congregated in one

block of surpassing beauty, are a credit to the city.

The foregoing would seem fully to establish the case of Douglas as a desirable, beautiful and healthy place to live. The mutual and reciprocal, relations that obtain and must obtain between Douglas and the Sulphur Springs Valley, make another story.

With Douglas fortified with two huge and constantly growing smelters employing thousands of operatives at a goodly wage, the Valley farmer is assured of a near and profitable market for his products.

Douglas' attitude toward the pioneers who are bravely, courageously, dauntlessly and confidently endeavoring to wring and wrest a competency and independence out of the none too hospitable soil of the beautiful Sulphur Springs Valley, is one of sympathetic and interested waiting and watching; for well does the Douglasite understand that with the winning of each succeeding arid acre to the uses of agriculture, a step forward has been gained toward that time when one of the things which contribute so much to his high cost of living, will have been brought to a minimum; and that no longer he will have to send his money to

California for tired, faded and vapid vegetables; but will have the fresh, verile, succulent, palate-ravishing vegetables of the Valley, with the glistening dew yet upon them, delivered at his door every morning.

Yes, the citizens of Douglas, through their Chamber of Commerce and Mines, are taking heed and account of the progress being made in the Valley; and when the time shall have come when the products of the Valley shall have attained to that volume and value that will warrant and demand a cold storage plant, and mayhap a cannery, Douglas and her Chamber of Commerce and Mines will not be found behind hand in providing them.

San Simon

SAN SIMON IS A NEW TOWN, the settlement of the town and valley having commenced on the development of artesian water in the spring of 1911, we have a good school of four rooms giving a full course, including a high school course, a very efficient corps of teachers for the coming school year, and an excellent school may be expected. There is a Meth-

odist church with the usual ladies and young peoples organizations.

The Episcopal church has an organization in St. Peter's Episcopal Mission, and St. Peter's Ladies Guild.

There is a Catholic Mission holding services about once a month.

There is a Board of Trade and a Farmers organization, these look after the interest of the Town and Valley and work for the development of the farming industry in the valley.

We also have a good prosperous bank, the San Simon Valley Bank, and a good weekly newspaper, the "Artesian Belt."

The San Simon Valley Board of Trade is an organization of the business men and farmers of the valley, and is in no sense in the real estate business. One of its principal purposes is to encourage bona fide settlers to come into the valley, to this end the secretary will cheerfully answer inquiries, either as to the opportunities in the valley, or as to the rights of those contemplating settlement. Address San Simon Valley Board of Trade, San Simon, Arizona.

Tombstone

OLDEST OF THE CITIES of Cochise County, probably the best known mining camp in America is Tombstone, the seat of the county government and just entering upon a new era of prosperity, which appears destined to eclipse any period in its past history. At length its mines are to be systematically developed and worked by a company which understands mining from all points of view and always makes successes, the Phelps Dodge interests.

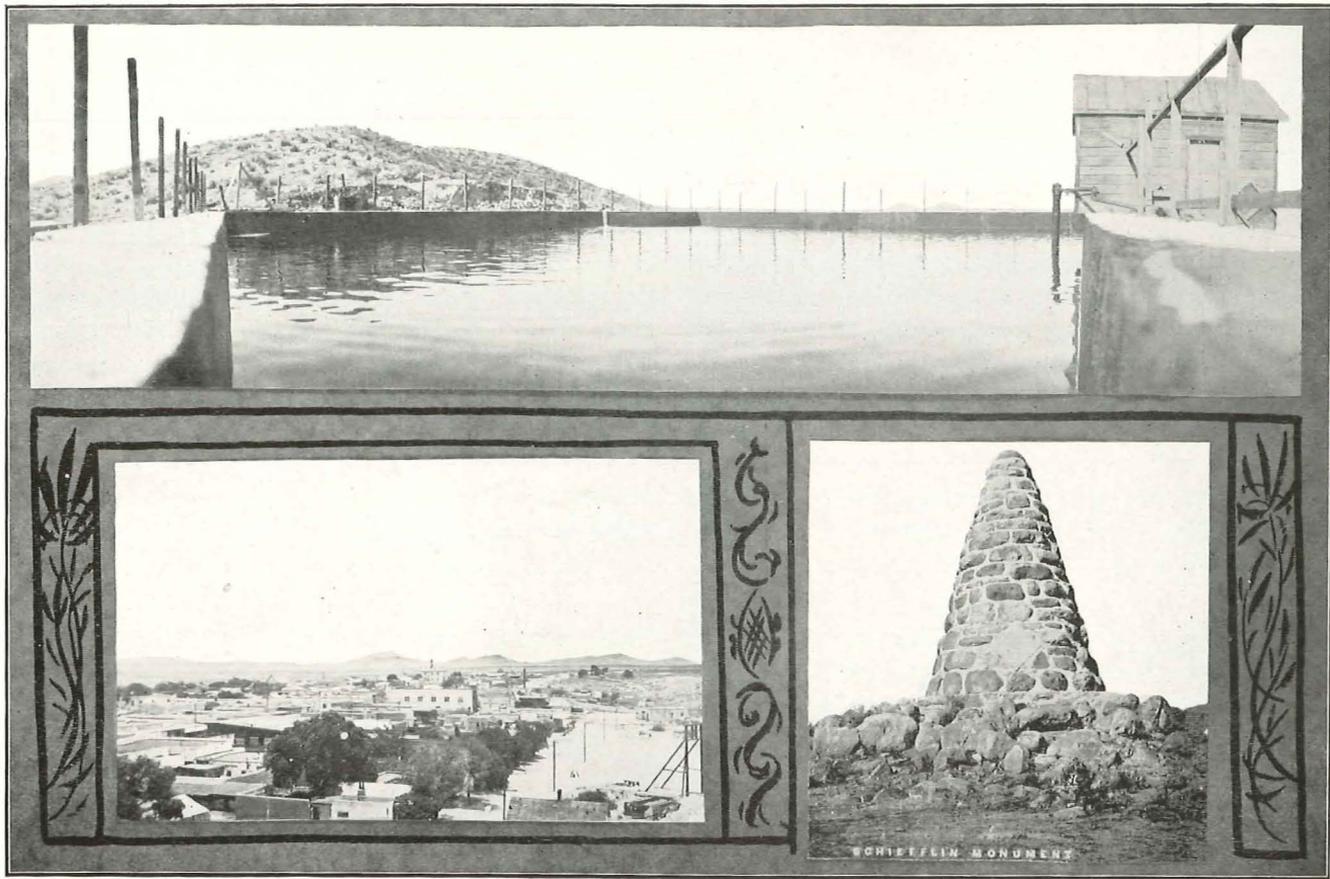
It was Tombstone that first drew attention of the world to the mineral wealth of Cochise County. From the rocky hills above the charming city, millions have been taken. That millions remain to be extracted, is the firm conviction of the capital behind the mining industry there, as shown by their purchase of the Tombstone Consolidated properties and of various other adjacent claims. New methods are being introduced and an operating force of 600 has been given employment.

The very name of Tombstone was enough to attract attention to it. The wealth that it produced could

not but bring notice and the pen of Alfred Henry Lewis added further lustre to it, in the Wolfville stories. Wild and woolly at the outset, it established law and order from chaos speedily and from a tough mining camp grew into a well laid out, well conducted city, a model of law and order.

Tombstone takes its name from a mining claim located nearby, and from which millions in silver were produced. The gruesome title is in no way connected with early events in the camp, nor with an excessive mortality. On the contrary longevity and health are the rule in a community that is one of the most charming in Arizona.

Ideal is the location of "Old Tombstone." Sitting upon a Mesa, backed up by towering mountains, she looks forth across the San Pedro Valley, a truly beautiful expanse of territory. Gently sloping from hills toward valley, there is a natural drainage that man's handiwork could not equal. And nature was lavish in her gifts for in addition to wealth in minerals, to beauty of scenery, to perfection of site for a city, she bestowed a climate that is the envy of every city of the Southwest. Vital statistics reflect the beauties



TOMBSTONE SCENES

Top, Reservoir of Huachuca Water Company; Lower Left, Tombstone from the Hillside; Lower Right, Schiefflin Monument.

and the healthfulness of Cochise's oldest city and had its residents no other boast, location, climate and healthfulness would suffice.

Territorially, Tombstone is not sufficiently extended to demand a street railway. It is laid out compactly. It is well drained and sewerred and its water supply is the purest, piped from mountain springs in the Huachuca mountains away across the San Pedro Valley, by the Huachuca Water Company. Its streets are electrically lighted with power supplied by the mining company to a municipal lighting plant. It possesses a well edited daily paper, the Prospector, and a weekly, the Epitaph. Among its residents are numbered some of the most substantial citizens of the county and of state.

A new project is being undertaken by the residents of Tombstone. For many years they were content to merely enjoy climate and location. At length the value of these has been brought home to them, and it will soon be that natural advantages will be capital-

ized, that the world will be given an opportunity to learn of and enjoy those advantages.

The purpose of the plan is not to attract the hopelessly sick, not to put forth claims to a fountain of health and strength that will cure all of the ills of the flesh, but to establish a place where health may be restored midst charming surroundings, where a God given climate may be had, where weakened strength may be recovered. The location of this resort will be closely adjacent to the city and will be given a name less suggestive of death or the cemetery than that which a rich mining claim has put upon a community as charming and as contrary to its name as could be imagined.

Tombstone is the terminal of a branch of the El Paso and Southwestern Railway and is located on the State Highway and the Borderland Route. It offers hote land garage accommodations to the tourists, together with a wealth of historic interest and delightful scenery.

OFFICIALS OF COCHISE COUNTY

Supervisors

J. M. SPARKS, Chairman, Douglas

VANCE M. JOHNSON, Bisbee

JOHN ROCK, Tombstone

A. C. Karger, Clerk

A. C. Lockwood	Superior Judge	Owen E. Murphy	Recorder
John F. Ross	County Attorney	Geo. Wales	Deputy Recorder
Bruce Stephenson, Douglas, Deputy County Attorney		J. H. Gray, Bisbee, Immigration	Commissioner
Harry C. Wheeler	Sheriff	J. C. Ryan, Bisbee	Engineer
Guy C. Welch	Chief Deputy Sheriff	Miss Minnie Lintz	School Superintendent
H. S. Ross	Treasurer	Miss Irene Alford	Deputy Superintendent
Jos. A. Ivey	Deputy Treasurer	Dr. O. V. Patton, Bisbee	Superintendent of Health
E. A. Hughes	Assessor	J. E. James	Clerk Superior Court
Walter Thomas	Deputy Assessor	Jno. W. Walker	Court Reporter