

YUMA

and Yuma Valley

Queen City of
The Colorado



9791
9754
1918

UNITED STATES' PREMIER RECLAMATION PROJECT
LAND OF PERPETUAL SUNSHINE; UNLIMITED WATER
SOIL FERTILITY BEYOND COMPARISON — DAIRYING,
AGRICULTURE, COTTON, FRUIT GROWING, MINING

YUMA, ARIZONA

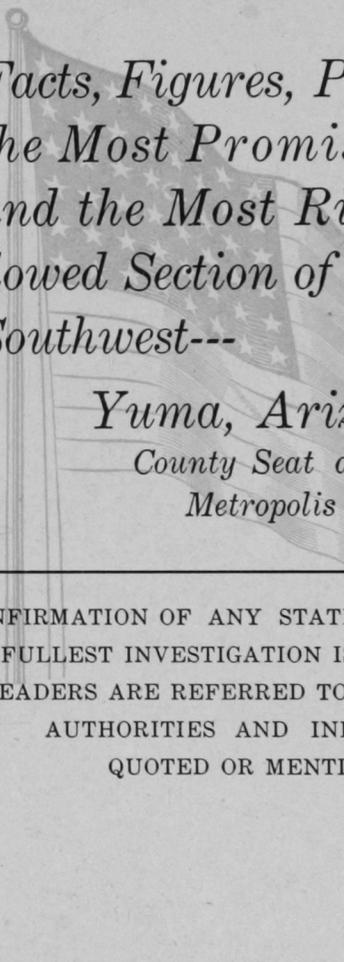
QUEEN CITY OF THE COLORADO AND COUNTY SEAT



Home of the Date, Olive and Orange

YUMA PROJECT

THE LAND of PERPETUAL SUNSHINE



*Facts, Figures, Pictures of
the Most Promising City
and the Most Richly En-
dowed Section of the Great
Southwest---*

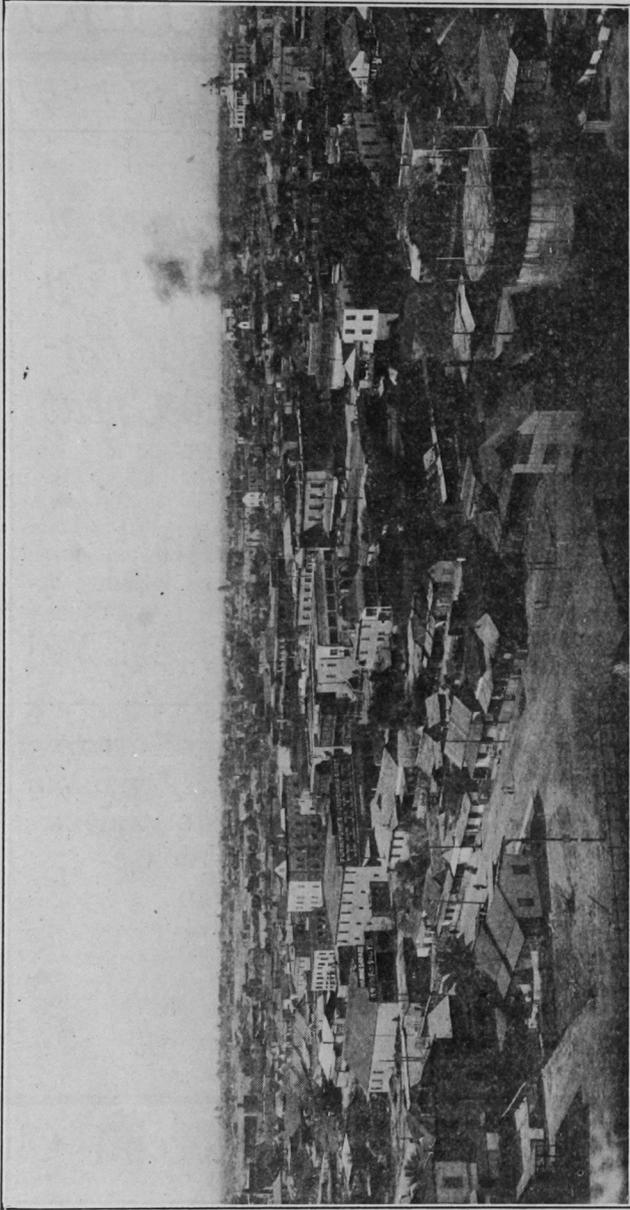
*Yuma, Arizona
County Seat and
Metropolis*

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THE FULLEST INVESTIGATION IS SOLICITED AND
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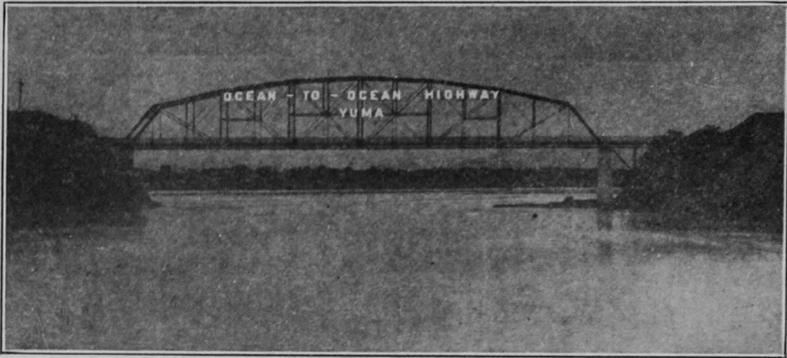
Yuma County Commercial Club

YUMA, ARIZONA

1918 EDITION



Yuma, Arizona, 1918—"The City Built in the Garden."



When the Shadows Lengthen.

Foreword.



WO factors must be discussed before we begin to unfold the wonderful story of this region. The two belong together. The City of Yuma owes its origin and development to the Colorado. The future prosperity of this part of the country is now so firmly united to this wonderful river that we would fall short in our story if we neglected to mention it. The United States Government, through its well-organized and splendidly equipped Reclamation Service, has brought the turbulent yellow waters under control for the use of the homeseeker. This permanent irrigation system is that which the farmer and rancher are directly interested in. Thus the river is the first factor, and the desert itself the second.

The Passing of the Desert.

Turning back to the earlier periods of history one will discover there paragraphs from our national life known as the Westward Movement. This era showed the spirit of unrest of a people who, not alone craved for adventure, but who desired more than any other thing the acquisition of new lands and new homes. Thrilling tales have been written about these people who were willing to undergo sufferings and hardships while crossing the prairies and deserts in the hope of attaining their goal. These were the Pioneers. First the Middle West was settled. Then the cheap lands of the Northwest attracted the homebuilder. Natural resources are the causes of the building of vast areas of farms and great metropolises, and the settlement of these places is due to the fact that the immigrant moves along the line of his experiences. So it is not surprising to one to note that the homeseeker, accustomed to forests, rains and long, cold, blustering winters, sought the regions of the Great Northwest, instead of the new and untried conditions of the Southwest.

Another phase of the situation was that the richness of the desert, the value of climate and the meaning of irrigation as the vital elements in crop production had not completely dispelled the doubt in men's minds. A new era in farming had to come by the ushering in of the irrigation age. It was difficult to convince farmers that through a permanent water supply for the arid lands the average crop production could be increased double the average crop dependent upon seasonal rainfall.

Through the agency of a great water supply system the desert is beginning to pass. The dawn of a new day has appeared, and with it one sees the literal fulfillment of the words of Scripture: "The desert shall blossom as the rose." The Colorado River is the American Nile, and one can reasonably call it the Parent of a New Egypt. The Laguna Dam, thirteen miles north of Yuma, and the large storage reservoirs along the upper river and its attendant streams, conserve the floodwaters and direct and regulate the current, insuring safety from overflow, and an unlimited and voluminous water supply for all the farming lands. With this great engineering feat now in operation the City of Yuma holds a future commercially for forty years. The sands of the desert are become the virgin soil of a new country—"An Occidental Egypt."



Vegetation That Is Transforming the Desert.

Yuma and Yuma County—Their Location and Topography.

The southwest corner of Arizona is occupied by Yuma County. Mohave County lies to the north, Maricopa and Pima Counties to the east; Sonora, Mexico, is its southern neighbor, and the Colorado River forms its western boundary, and separates the State from California. The area is greater than that of Vermont or New Hampshire, or Massachusetts, and would make a State equal in extent of the combined areas of Delaware, Connecticut and Rhode Island. Its acreage approximates twelve thousand square miles.

Topography.

The general topography of the county may be described as a high table or mesa land, sloping from an elevation of four or five thousand feet in the northeastern corner to a low plain scarcely 140 feet above sea level in the southwestern corner. A small tributary of the Colorado forms the northern boundary; and the erratic Gila winds its tortuous, turbulent way, from east to west, through the entire width of the county, and pours its contribution of waters into the mighty Colorado a mile above the City of Yuma. The Colo-

rado, deep, silent, mysterious, rich with the silt collected from many soils, flows from north to south along the western border.

The City Built in a Garden.

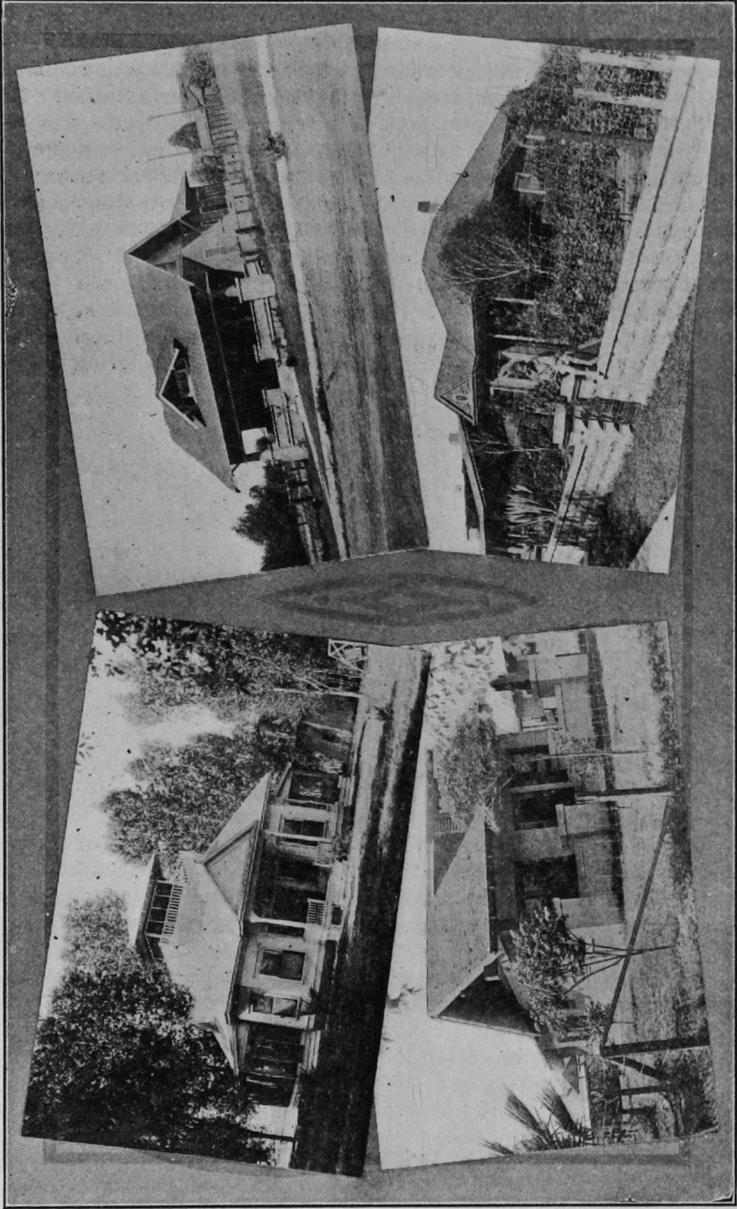
Cities have been built through advantage of commercial location, but compelled to draw from a "back country" far removed; and cities have been built because of back country production where the necessity of communication was a difficult problem, requiring much time for solution. Yuma, fortunately, has the advantage of both.

The City in the Garden is situated in the extreme southwest corner of the State of Arizona, but twenty-three miles from the Mexican border. It is on the main line of the Southern Pacific Railroad, commonly known as "The Sunset Route." The wonderful open winters makes "The Queen City of the Colorado" one of the chief cities through which passes the Ocean-to-Ocean Highway, the Borderland Ocean-to-Ocean Highway, the Southern Ocean-to-Ocean Highway and the proposed Dixie Overland Highway. For at Yuma the Ocean-to-Ocean Highway bridge spans the Colorado, creating the only outlet in the South to the Pacific Coast. Thus Yuma becomes an important strategic point in the Southwest.

All through trains stop here. Los Angeles is 250 miles to the northwest, Tucson a like distance to the east; Phoenix, the capital of Arizona, 197 miles northeast. El Paso is beyond the breadth of Arizona and New Mexico, so that there is room here for a social and commercial center of some magnitude. We have only to look at the agricultural side, to study crop production in the light of the semi-tropic climate, and to consider this dry region as a winter sanitarium equal to any of the Egyptian Nile, and one will be convinced that Yuma is destined to become the largest and most important center in the new domain which in a few years will flourish along this great river.

The fertile Yuma Valley and the Yuma Mesa land lying back of the city and stretching to the south are the donors of wealth to the metropolis. The stimulus is considerable. Here "Father Time" is building up a commercial and social city of consequence and round about it a unique country side. There is little doubt but here will be, in not a far-off year, plantations of date palms and an attractive and new profitable industry. A corner of the old desert world of the Sahara with its romantic associations, but without its poverty, its tent life, its Arabs and its caravans. The miracle of irrigation in the Syrian desert is not a bit more transforming there than here. Nor is Alexandria, nor Damascus more beautiful than Yuma is becoming, being touched by the magic of water. Here, as there, are figs, olives, pomegranate, oranges, lemons, grape fruits, apricots, plums and dates, the green foliage and mass of bloom and fruitage in striking contrast with the dull tone of the surrounding desert. Yuma is a modern city, and from month to month witnesses a revelation and the truth of the old words, "and everything shall live whithersoever the river cometh."

Yuma is well situated on the east bank of the Colorado. Its population is cosmopolitan, and numbers about five thousand. Civic improvements are going forward with unprecedented rapidity. The streets are being paved, many their full width, with gutters and curbing. There is a filtered water supply, up-to-date sewerage system, electric lights, a gas plant, a large ice plant, which furnishes not only the people of the city, but also all the trains passing to the East and to the West; two substantial banks, hotels, several amusement centers, a cotton gin and and two daily newspapers. The business district is located in a small portion of the valley close to the river.

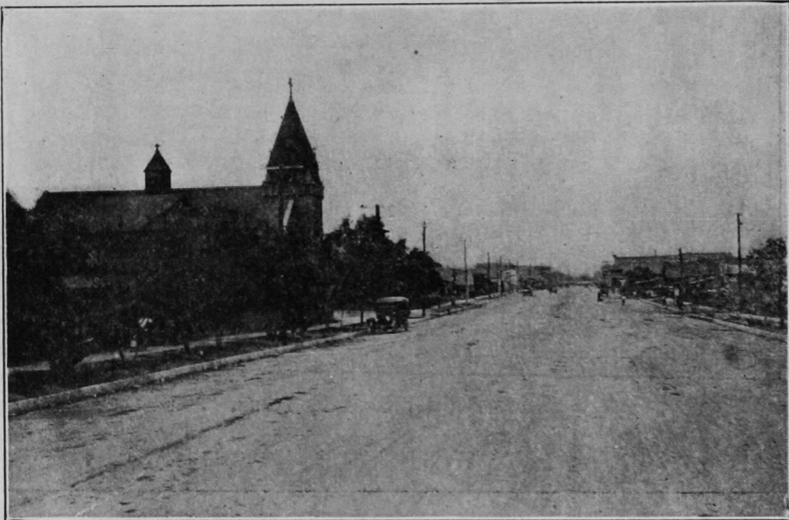


Yuma—The City of Beautiful Residences.

There are five religious organizations and as many churches. The spiritual welfare of the community in both the city and the country is well looked after, and the Yuma Valley now supports two Methodist and two Baptist churches, with good buildings, and active organizations with regular pastors in charge.

Touching upon the educational facilities of the city, Yuma can boast of one of the best institutions of learning in the State. Yuma County has as good schools as are to be found in any county in the Union. Special attention has always been given to the employing of the best teachers in both the high school and the grade schools, and the person looking for a place in which to locate and educate his children can not do better than to make his home in Yuma.

The social life is quiet and orderly. There are many secret societies, all of which are prosperous and have a large membership. Some of the more pretentious organizations are the Masons, the Elks, the Odd Fellows, Loyal Order of Moose, Knights of Pythias, Eagles, Spanish-American Alliance, Knights of Columbus, Order of the Eastern Star and Rebekahs.

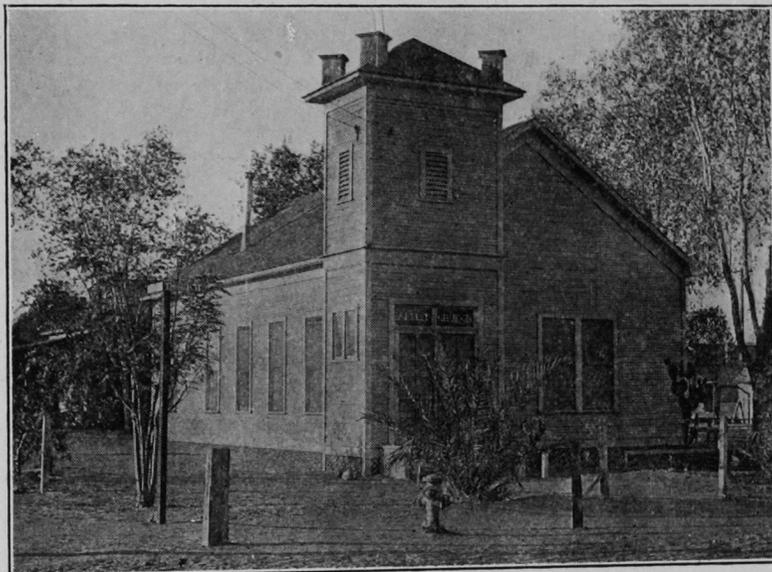


Roman Catholic Church—Main Street, Yuma.

The women of the city and valley are most enthusiastic and active in all matters which concern the betterment of the community. Heretofore, there have been two women's organizations in Yuma, known as the Ocotillo Club and the Yuma Woman's Club. Recently these societies have united to form the Delta Club. The Yuma Valley has a well organized woman's club with its clubhouse in Somerton. With the entrance of the United States into the world war came the forming of the Red Cross Chapter. Every citizen welcomed the opportunity to serve the country in the noble work of this institution. Along side of this stands the Yuma County Council of Defense,

another factor in the life of the community which proves the loyalty of the Yuma people to the Stars and Stripes, and the cause of the Entente Allies. The large heart of the Yuma public is further to be seen by the efforts to relieve distress and suffering at home, coming through the institution known as the Yuma County Welfare League.

With such community spirit asserting itself we can now turn to consider what other constructive forces are helping to make the City of Yuma in the near future a metropolis of 40,000 people.



First Baptist Church, Yuma.

Outside Forces Which Are Working to Advantage for Yuma.

Yuma is the headquarters for an extensive mining district, extending far to the northeast of the county. Some of the mines are well developed and possess large bodies of ore. The men operating the mines are well known in the mining world, and some of the mines have been producers for years. The war has caused many new prospects to be opened up, and recently there has been an increased activity throughout the entire field. Regular shipments are made from the localities, and with the high market in metals these properties return splendid profits to their owners and leasers.

With no competing point within reach of Yuma, the city is the supply point for the mines, and in turn these furnish through the camps a market for considerable fruit and other food products of this section.

Yuma is a veritable oasis in the desert; the center of an agricultural and horticultural region embracing many hundred square miles. The great irrigating works at this point has produced an evergreen and verduous area spreading and widening itself out on both sides of the river, and up and down its course for miles, until the town itself has been forced to expand to meet the constant multiplying farms and orchards, causing the loss of some degrees of its summer heat, as vegetation appreciably affects temperature,



St. Paul's Episcopal Church.

cooling the air and reducing the radiation from the surface. Farming here will be largely intensive, and the small farm is destined to predominate. With this change there will come a denser population which will be the impetus for urban growth. The orange district in San Bernardino County, California, has less than 30,000 acres of citrus fruit, yet this industry is the main support of at least half a dozen towns of approximately 30,000 people.

The smaller farms in the valley lands, and an orange district equal to that of San Bernardino County, will make Yuma the center of this district. One can logically look for new town sites along the river and the railroad.

Opportunity awaits the touch of Industry and Capital. The balmy breezes and Italian skies invite alike the seeker after an ideal home spot, and the searcher after health, wealth and happiness.

The Yuma Lands.

The Yuma Indian Reservation, situated in Imperial County, California, and just across the Colorado from Yuma, comprises some 16,000 acres of land. This vast tract has been cut into small farm units, and the year 1918 will witness one of the most extensive cotton raising sections in the great Southwest. More than five thousand acres have been leased to cotton growers for this season's crop. The lands on the west side of the project are called the cotton bottom lands.

In the Gila River Valley in Arizona there are about 20,000 acres, also classed as bottom lands. These reach up near the dam, but embrace also the Lower Gila Valley, and like the others are exceedingly fertile. The Gila is an intermittent stream and flows into the Colorado just north of Yuma City. As yet the waters of this river are uncontrolled by the ingenuity of man, but as soon as the Government takes hold of the problems which now seem to confront the prospective farmer, and endeavors to solve them for him, this region will offer exceptional opportunities to the investor.

The lower Yuma Valley embraces some 53,000 acres. This is largely settled and cultivated, having many excellent farms. The past year has been the most active in settlement in the valley, for from one section of Oklahoma bordering on Texas over sixty families have come to make their home in this wonderful garden.

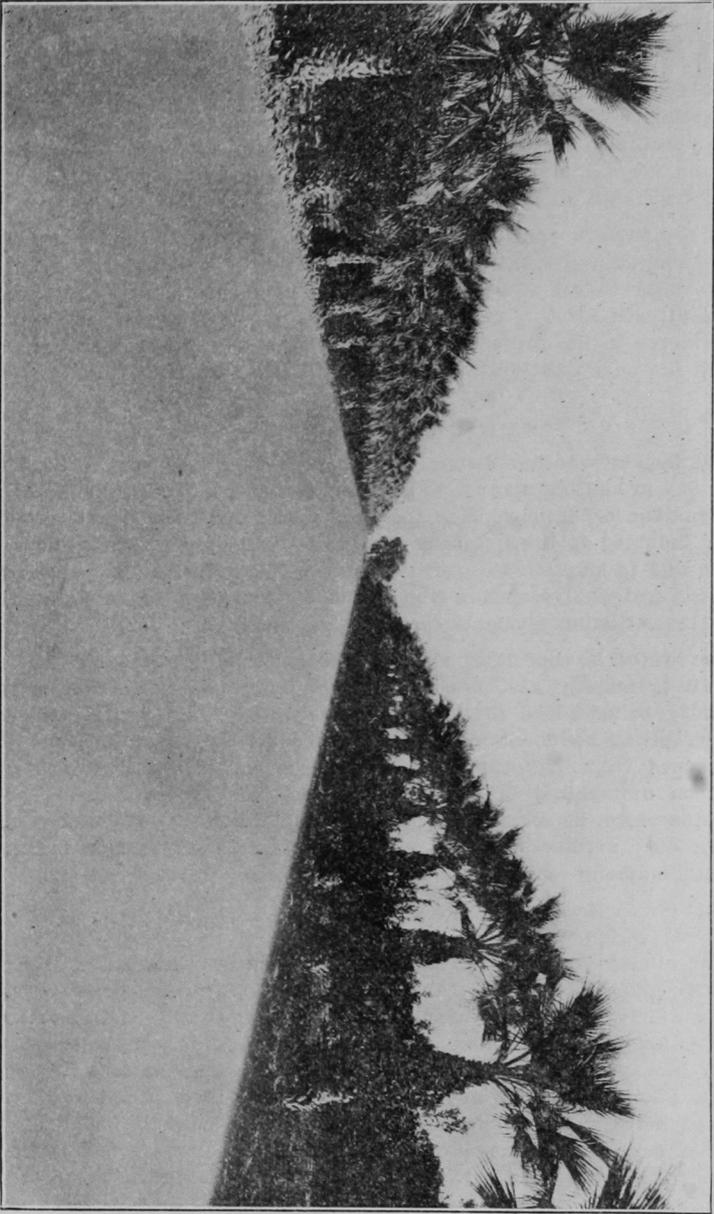


Yuma Methodist Episcopal Church.

The valley is formed almost wholly of sedimentary deposits, and can be counted among the most fertile in the world. The soil survey experts describe the general formation as a great bed of sand overlain and interstratified with layers of finer material deposited by the river as it shifted its course from one side of the valley to the other. This sandy sub-soil is far below the surface, and makes the drainage of the soil itself naturally good.

The soils are characterized as fine, sandy, loam, silt loam and Yuma sand. The latter is confined to the mesa, and becoming under irrigation almost a sandy loam. This soil was probably formed when the gulf extended several miles above Yuma.

The soil situation should please the most exacting. It is the soil of an arid region, rich in plant food; it is so underlaid and so related to natural grades



The Palm Drive—Yuma Mesa.

and channels as to be perfectly drained, and it is adapted to a great variety of products, including citrus fruits and dates.

Soil is the farmer's bank against which he must draw checks in the shape of crops, and he will never ask for a receiver.

The Mesa Lands.

Skirting the valley lands on the east and the south is a large area of mesa, or table-lands, which are for the most part comparatively level. The mesa proper rises from 65 to 75 feet as an abrupt bluff along the valley lands. It is an old coastal plain and was once near the beach, before the Colorado pushed its mouth so far southward.

In the eastern part of the area quite a little of the mesa is but a few feet higher than the valley. It is planned by the Reclamation Service to supply water to some 40,000 acres as under the canals. A pumping plant will be utilized for this development. Of the total irrigable area figured at 130,000 acres in the project, the mesa lands of 40,000 acres are regarded as forming the only frostless region in the United States.

Fertilizing Waters.

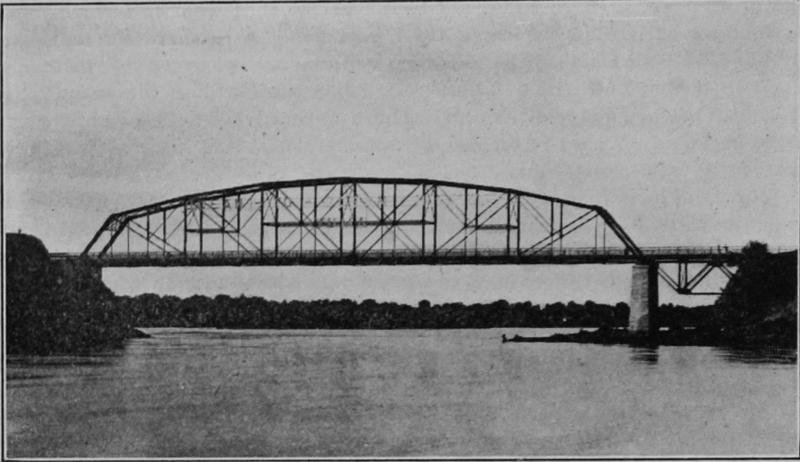
The farmer who has struggled with poor soils and worked hard many a spring day in hauling manure to keep up the failing fertility of his fields, and who could never quite replace the loss occasioned by constant cropping, is greatly indebted to the Colorado River. It holds plant food enough in suspension and in solution to forever preserve the irrigated lands from exhaustion. Several analyses show the water of this river to be as rich, if not richer, in fertilizing elements than that of the River Nile.

The water is especially rich in nitrogen and the organic matter with which it is usually associated, and these substances under irrigation are constantly being added to the fields without expense to the farmer. That river irrigating sediments increase the productiveness of the land we long ago learned from Egypt and China. These valuable valley lands will be passed on unimpaired in fertility to generations yet to come. There will never, therefore, be an "abandoned farm" in Yuma Valley because the land is worn out; neither will the problem of the tenant farmer occasion any disquietude among our people.

Climate.

The climate of Yuma has always proven an interesting theme, and especially among the people of the East who have formed their ideas regarding it from widely circulated yarns emanating from would-be humorists. The first question asked regarding Yuma is one concerning temperatures, and the manner in which such inquiries are made brings out the fact that the fable of John Phoenix's soldier and widely circulated tales of alleged humorists have had more weight in forming the erroneous opinions generally held of Yuma's climate than the experience of residents and the accumulated record of facts and figures collected by the Weather Bureau during the past twenty-five years.

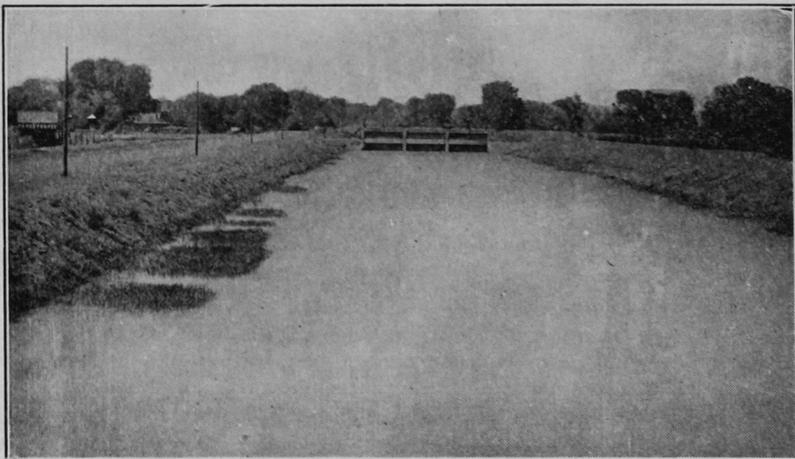
Yuma's unprecedented climate is ably stated in the words of the official observer of the United States Weather Bureau located here, Mr. Sumner Hackett:



Interstate Highway Bridge at Yuma.

"The weather we experience can neither be expressed in degrees of Fahrenheit nor put into figures for comparison with those of better known and more humid climates, but is contingent upon preceding weather conditions and the changes therefrom, diet and clothing being largely relative.

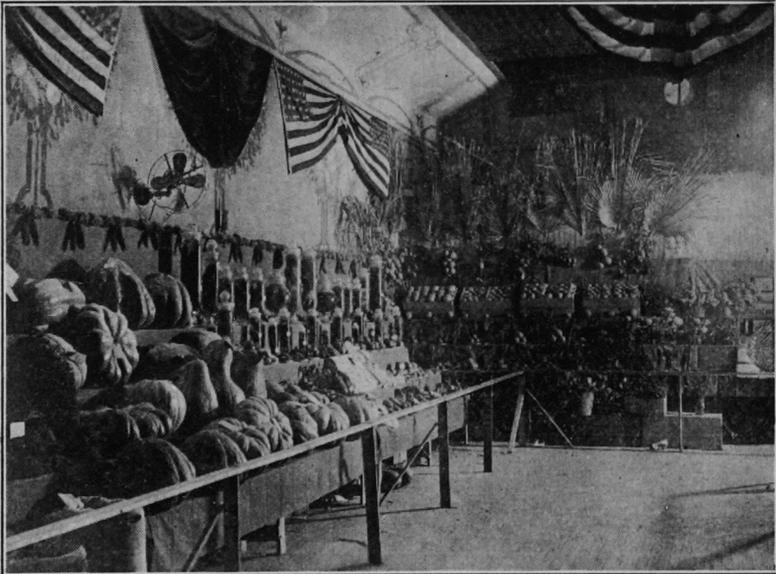
"The local conditions can not be compared with those of Los Angeles and Phoenix. The geographical situation is different, and when this is true any comparison is impossible. The fact is this: the drainage conditions both about Los Angeles and Phoenix produce a great amount of moisture. During the night the air cools very rapidly. Such winter conditions are bound to produce frost at 32 degrees Fahrenheit. Yuma's condition is not the same.



Main Canal of Fertilizing Waters.

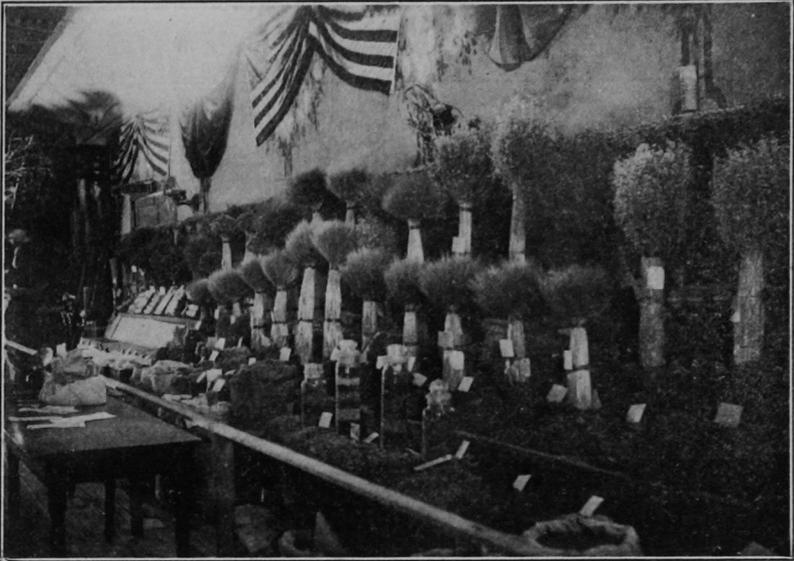
The dry, clear air carries so little moisture that even should the thermometer register 32 degrees there could not be a frost so that what is termed frost in Los Angeles or in Phoenix is not frost in Yuma. A further fact to be noted is that in these outside cities weather reports are recorded by instruments placed on the tops of high buildings. In Yuma these are on the ground, hence the conditions are again dissimilar. There is relatively nothing known to the people of Yuma of what is termed by outsiders first and last frosts. It takes moisture to make frost—Yuma has no moisture, therefore no frosts.

“Now the heat is another subject to be considered. In many places near Yuma, figuratively speaking, meaning within two or three hundred miles, summer weather is infinitely more intolerable than it is anywhere in the Yuma Project. Why? Because, the great amount of moisture occasioned by the topography and the proximity to the large bodies of water and the ocean make a higher humidity. California can show a more stifling summer atmosphere in parts of the southern portion than can Yuma. Imperial Valley, Riverside, San Joaquin Valley and Needles, California, suffer more from the heat in summer than does Yuma. Ours is a dry heat as against a high humid, muggy atmosphere elsewhere.



Section A—Yuma County Exhibit—1917 State Fair, Phoenix.

“During twenty-five years the actual temperature has risen upon some day in June, July or August to maxima, on four occasions to 116 degrees, on three occasions to 117 degrees, and once a temperature of 118 degrees was recorded. It will be noted that these temperatures occurred only eight times in twenty-six years, and we think the assertion safe that there was no suffering or loss of domestic animals from the heat. An actual temperature of 116 degrees was recorded upon June 24, 1902, and men continued their work in the fields without discomfort to themselves or the working stock, or



Section B—Yuma County Exhibit—1917 State Fair, Phoenix.

without ever knowing that high temperatures were being recorded; yet during the last six days of September of the same year people complained some of the heat and the actual maximum temperatures recorded upon those days were each below 100 degrees. So it will be seen that conclusions drawn from comparisons of Yuma's climatic figures with those of more humid climates, East or West, are unreliable and misleading.

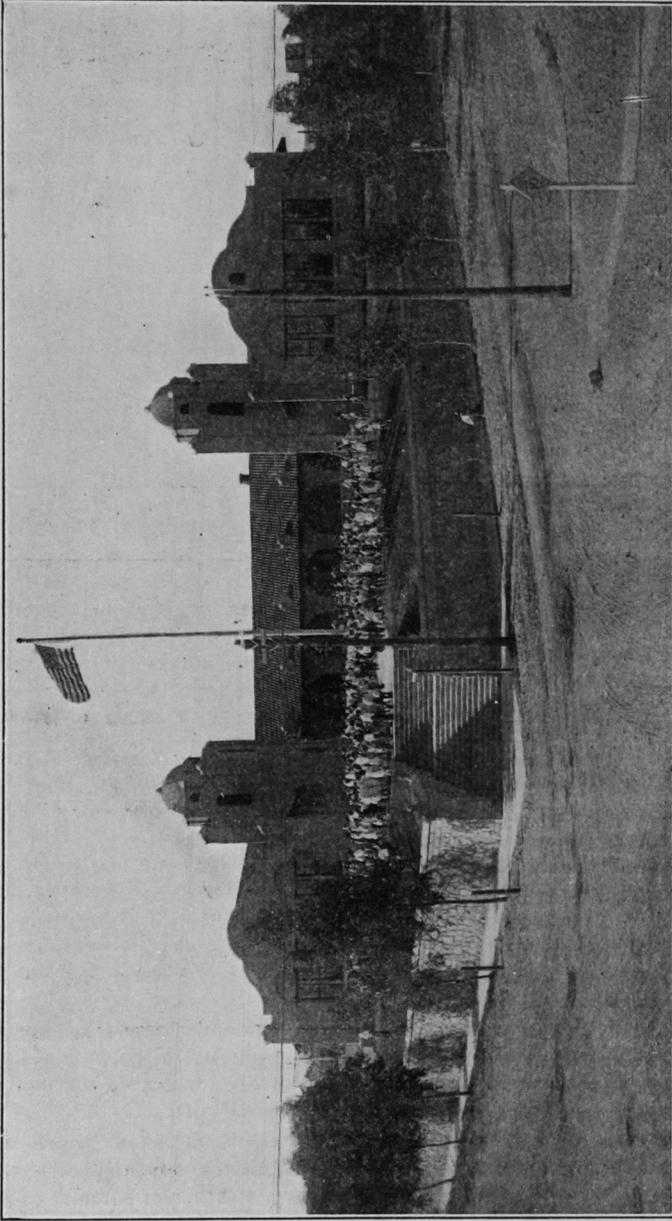
"The next question in order asked is: Does it ever rain? Yes, the rainfall at Yuma is a shade under three inches per year, which is just about enough to keep the dust laid.

"What about your frightful sand storms? They are a myth. Occasionally we have maximum wind velocities of thirty to forty miles per hour, and some dust is raised, as would be the case elsewhere except upon the ocean, but tornadoes are never known, and the continuance of wind storms is rarely more than twelve hours, and buildings or trees are never injured by their violence.

"With rarely any approach of closeness or sultriness, that condition so well known and dreaded, Yuma, because of proximity to the Gulf of California, also escapes that other extreme known as aridity, which so discomforts men or animals and retards the development of plant life.

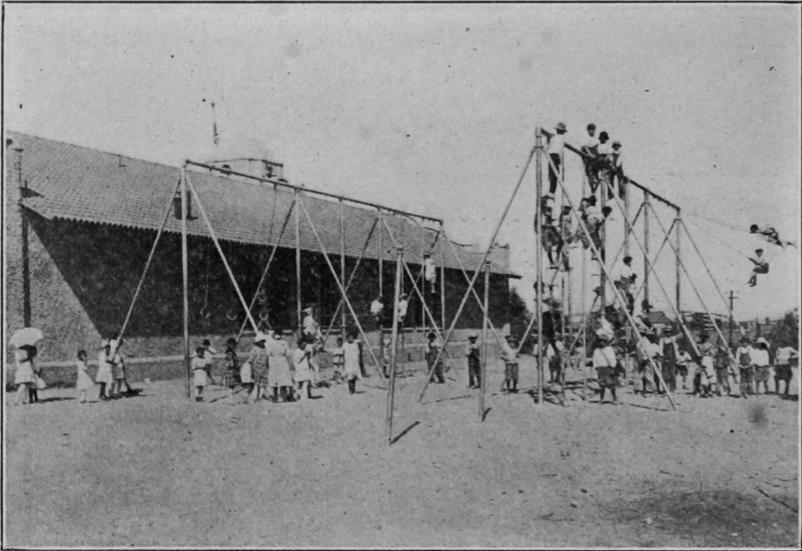
"With minimum temperatures rarely low enough to injure the most delicate plants, with no frosts, Yuma basks in the sunshine of a winter as beautiful as any in the world, and as the warm weather of summer approaches, the Gulf of California gives us breezes as soft and cooling as ever rippled the Aegean, or made music through the palms of the Ionian Isles."

Where Yuma shines is in the sunshine. If the reader will study carefully the record of the United States Weather Bureau on the subject of



Second Avenue Grammar School—Yuma Educational Institutions Are Unsurpassed.

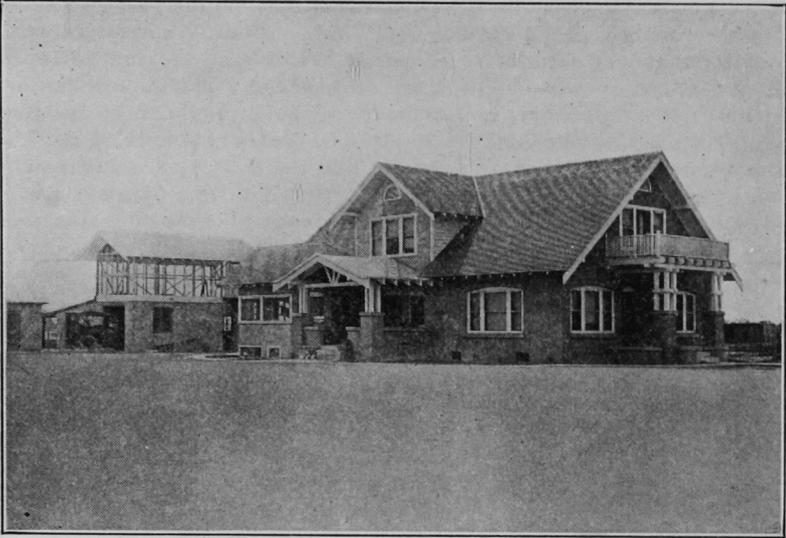
cloudless, partly cloudy and cloudy days his smiles of incredulity will fade away. For the little instruments which make these daily records, and which have done so for the past twenty-five years are accurate to the finest degree, and can not be disputed. So when one reads that for the past twenty years, up to the twenty-sixth of January, 1918, the records do not record one day in 365 for that long term of years as not having seen the sun during some part of the day, he will be surprised. Notice for a minute the date above mentioned; it is interesting and so much so that it ought to be recorded in every geography throughout the Union. On January 26, 1918, the United States Weather Observer in Yuma states that the little, tiny, sensitive instruments did not record a bit of sunshine on that day from sunrise to sunset; this is the first sunshineless day in twenty years. Los Angeles, the reputed



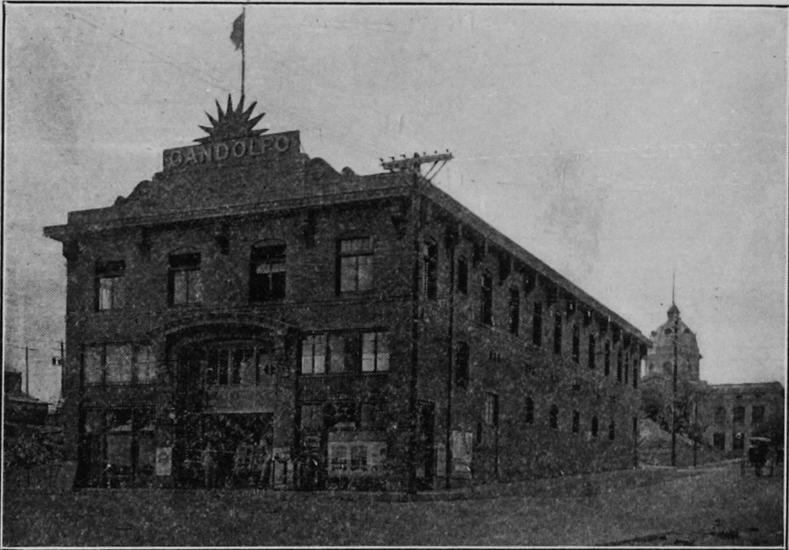
Second Avenue Playground, Yuma

center of wealth and social life during the winter months, boasts of nine sunshineless days, twenty-eight rainy days, and a precipitation for the entire year of 8.45 inches during 1917. Compare the Yuma climatic conditions for the year as recorded separately in this book, and it will be seen that ultimately, those seeking real winter weather will come to Yuma and establish their residence for eight months, at least.

For eight months the weather is perfect, and no other district or locality dares to compete with it. Yuma challenges any section in the United States for the best climate from October to the first of May, such records to be gathered from the official United States Weather Bureau.



Residence of O. C. Johnson, Yuma Merchant.



New Moving Picture Theatre Erected at a cost of \$35,000.

Four months in the year are hot. And that's the great secret of our long growing season. The heat, however, never kills or prostrates. It makes a high thermometer, but the air is dry and pure, and the sensible heat does not approach an Eastern city day of eighty-five or ninety degrees. The nights never occasion one discomfort, and all sleep out in the skeleton summer houses built especially for this season. The winters are extraordinary. With sunshine, absence of fog and rain, no sudden changes, dry air soft and balmy, they are as delightful as the tourist can possibly find in the most favored spots of the earth. Some day this perfection of winter weather will make Yuma a great health resort, and the most fashionable winter social center in the world. The dry electrical air invites out-of-door life, and this is better than all medication. Think of playing tennis on New Year's day dressed in Palm Beach style. Imagine the joy of going into the garden on that day and pulling vegetables for the holiday dinner; or into the orange grove and plucking the luscious golden fruit for an appetizer.

When we enumerate the almost magical growth of plant life here, the actual farmer will note that this is due, in a large measure, to warm weather. It is the most valuable asset the country has. Given a climatic condition where one can cut alfalfa during the Christmas holidays and cut it again in March, one catches a glimpse of a long growing season. Soil, heat, moisture; these are the eternal elements of production, and these are to be found in abundance in Yuma. They are elements co-ordinated to make a real country, and you can not omit any of these factors. You can rely on good soil, the richest in the world in plant food, and all the water you want and whenever you want it, and growing weather for ten months in every year.

Then, too, this unparalleled winter climate has the qualities of the desert about Mt. Sinai in Arabia, or of the great Sahara Desert in Northern Africa, is much dryer than those parts of Morocco, Algiers, or Tunis usually visited, dryer than any part of the valley of the Nile north of the first cataract, and with the same quality as the air on the Nile south of the first cataract, but somewhat cooler. This is the testimony of Whitelaw Reid, familiar with climatic conditions in both Egypt and Arizona, and it is certain that the facts will make their way and that this region in time will have its contingent of homeseekers and also health seekers. The climate will remain, but the landscape will change; the river will remain, but its banks will be made attractive by cultivation and the growth of trees as the result of flood control; the city will grow and have first-class tourist hotels, and the surrounding barrenness will give place to orange groves and plantations of date palms. This is not theory, but the prognostication of those who dare to look ahead into the future twenty years. The work has begun and the broad foundation of an intense economic life was substantially laid in the first courses of the Laguna Dam and the higher forms of industrial and social development are sure to come.

To summarize the article on climate let us consider the words of one winter tourist whose testimony recites the experience of every winter visitor in Yuma, whether his quest be for health, pleasure or a place to found a comfortable home:

"If atmosphere were only transportable like mineral waters and one could send consignments of this Yuma winter air to the East, the inspiration of its health-giving qualities would bring 25,000 tourists each winter to the banks of the Colorado River. The fertility of the valley below has made



Yuma Heights Orange Grove, Yuma Mesa

itself known with but little effort on the part of the people. But with a valley full of an intelligent and industrious rural population, producing fruits and vegetables, poultry, eggs, fresh milk and fragrant butter, and a mesa land blossoming with the myriads of flowers of its citrus fruit trees, Yuma will be one of the most delightful winter resorts in all America."

Agriculture.

With agricultural, horticultural and viticultural possibilities equalling, if not excelling those of any similar area of the earth's surface, certainly surpassing all other sections of the United States with a climate seemingly made expressly for growing things—growing them quickly, early, in fact continuously, and in marvelous abundance and quality, with a soil endowed by nature in unprecedented manner with the essential of effective fertilization; with a wealth of elixir-laden water flowing by and needing but the harnessing, it is not strange that the Yuma Valley attracted early attention from the United States Reclamation Service.

These things amply proven to the Government's painstaking expert agriculturists, economists and engineers, it naturally follows that the Yuma Project, with its great dam across the mighty Colorado, its miles of protecting levees and its comprehensive system of canals, should have been among the first enterprises authorized by the Department of the Interior under the terms of the wise and beneficent Reclamation Act.

With the vital portions of this great project completed, the permanent and dependent wedding of soil and water assured and beamed upon by the same kindly sky which justly inspired the earliest settlers' enthusiasm; with a period of progress and development such as few countries have known looming immediately before; with a truthful story to unfold which should mean much to judicious investors no less than to the Nation's industrious searchers after homes, we Yumaites claim justification for this effort to tell the world of the riches that are ours and the great good that has come to us.

Of the Yuma Project itself many pages might be written and the story but half told. Of its influence and effect upon Yuma and Yuma Valley, the situation may be briefly and yet most accurately described by acknowledging that it means—Everything. Rich soil, marvelous climate and life-giving waters were here before the Reclamation Service. Of the Project's physical features—what it is, how constructed and the land it covers—the reader has only to view the pictures which in themselves describe this great piece of Government engineering.



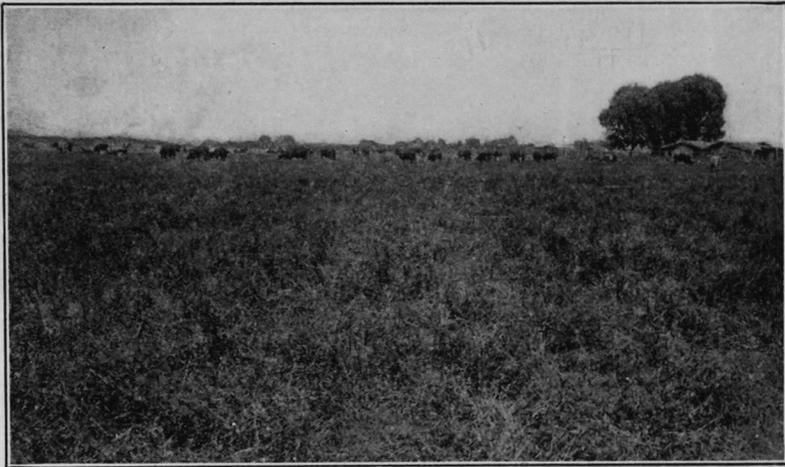
ALFALFA—A Cutting Every Month in the Year

Alfalfa.

Alfalfa is the most certain crop grown in the world; it never fails and is always marketable. Once seeded, it grows year after year, for how long is not known, but in the Yuma Valley nine months in the year witnesses a cutting of this favored crop. Seven cuttings is considered the minimum when harvested for hay alone. There are three requisites for successful alfalfa raising; deep, rich soil, plenty of water and lots of sunshine. Yuma has each in abundance. Notice, especially, that the Yuma Valley is one of the very few places where stock can be pastured on alfalfa fields with much less danger from bloat, because of the dry climate. Wet feed causes bloat. Another point to be noticed is that there are practically no rains in the valley to spoil the hay after it is cut and shocked. The hay is always bright and demands the highest price. An approximate estimate of cuttings may be stated as between seven and nine, yielding from eight to twelve tons per acre annually. The crop can be sown in October and yield almost as much as the old alfalfa. Alfalfa is indeed the king of forage crops in the Yuma Valley. It is no more than the repetition of the old story of alfalfa in the Yuma Valley that has made this project the home and habitat of this forage crop. Here it has reached its highest perfection and produces its most marvelous results.

The selling price of alfalfa hay at Yuma was formerly quoted at \$18 and \$20 per ton. Today alfalfa in the stack will sell for \$22 per ton, and baled, will easily bring \$25 and upward.

In addition to growing alfalfa for hay, an industry which our farmers have demonstrated to be most profitable, the production of alfalfa seed has become a remunerative industry. The second and sometimes the third crop is cut for seed. The yield, during the past four years, has run from 300 to 1800 pounds to the acre. What we call common alfalfa seed will bring 18c and upward per pound, while Peruvian alfalfa seed is in great demand all over the country, and has the reputation of being the very best alfalfa seed grown. During the season just closed more than 13,063 acres of alfalfa were harvested, and the acreage planted to alfalfa is increasing with each returning season. A field of this rich crop in the Yuma Valley coming to maturity beautifies the landscape and nods its gay plumage in welcome to the "New Comer."



Cattle do Well on Yuma Valley Alfalfa

Small Grains.

Barley and wheat are Yuma Valley staples, both yielding exceptionally well. These sown in the fall can be pastured all winter and then harvested early in May. An average of 50 bushels of barley to the acre sown during this period may be depended upon. Barley hay yields from two to four tons per acre. Barley may be followed by corn, or corn by barley. This will be a region given to intensive farming, and the production of high priced crops. But the "standbys" of the old fashioned farmer flourish here. If he wants corn and hogs, the corn belt is here, and 30 to 50 bushels to the acre can be produced. Corn planted early in June comes to maturity in the latter part of October. Kaffir corn produces abundantly. Corn, Kaffir corn, milo maize and sorghum are grown as a second crop after barley and wheat are harvested. They are planted the early part of July and harvested in September or the first part of October. All these crops when cut for fodder yield a large tonnage per acre, and are very profitable for rough feed. Wheat is one of the principal small grain crops in the valley, brings splendid returns, and is very fair milling and bright.

Vegetables and Fruit.

Vegetables of all kinds make a remarkable yield; and early gardening is a most gratifying industry. This industry, although somewhat neglected in the past, is coming to the front and making fine returns on a very small investment. Tomatoes, celery, asparagus, sweet potatoes, cabbage, sweet corn, peppers, onions and cucumbers are some of the leading vegetables, but all kinds are successfully grown; and the fact that they are put on the market the earliest in the season of any in the United States makes this a wonderful garden truck valley.

Irish potatoes can be planted in January and harvested during May. Corn has been planted between the rows in March and both harvested by June first. On the same ground corn has been planted August first, and turnips added between the rows the last of September, all maturing. During the winter all the cold climate vegetables thrive, cabbage, cauliflower, beets, lettuce, radish, etc., and most of these vegetables can be grown the entire year.

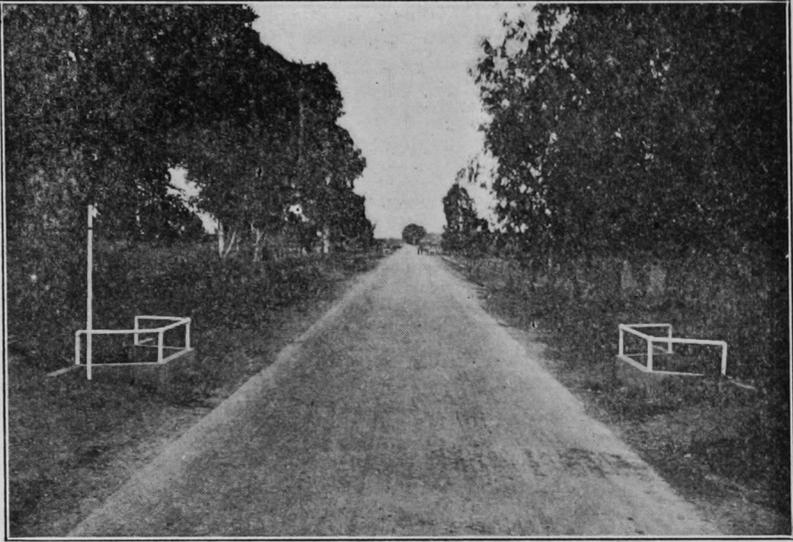
Bermuda onions and tomatoes have produced as high as ten tons per acre of marketable product. This is also a bean country; white beans, pink beans, lima beans and others are not only grown satisfactorily, but two crops can be taken off the same field in a year. Pumpkins, squashes, citrons, watermelons, cantaloupes and other vines are heavy producers; sweet potatoes, sugar cane, sugar beets and peanuts are all at home in this section also.

Cantaloupes and melons are successfully grown, one hundred and fifty crates being an average yield, while 250 to 300 are not uncommon. Watermelons are prolific bearers. The yield is marvelous, quality absolutely the finest, and the time they are put on the market is the earliest. The sweet potato grows to a great size, averaging from three to forty-two pounds, according to past records, without being coarse, fibered or losing sweetness. Planted in April and dug in October, they cover the ground so that weeds and grasses are not troublesome.

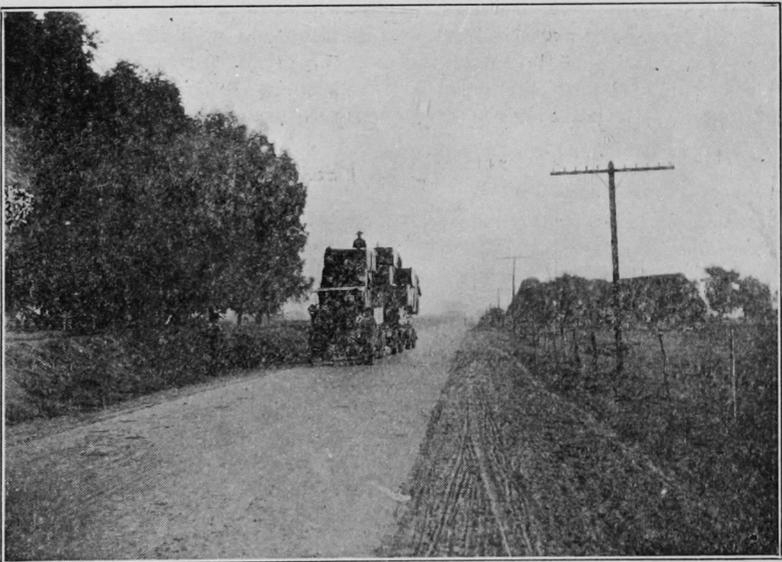
Small fruits and berries of almost all kinds do well. Strawberries and blackberries have been the most thoroughly proven. Strawberries ripen all the way from January—and even a little earlier—to June, and the market is unlimited. Blackberries are great croppers and find ready sale.

Deciduous Fruits.

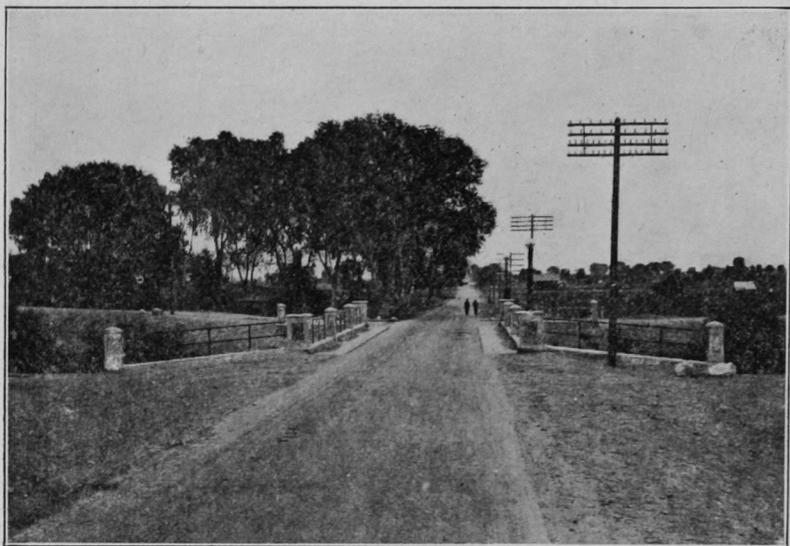
Deciduous fruits will all do well if wisely located, except apples. Such as have been tried have yielded well, and it may be that in shaping the tree and care in selection of varieties will insure the success of the apple commercially; but climatic conditions insure the success of the apple commercially; but the climatic conditions here are better for figs, peaches, apricots and grapes. Pears and prunes are heavy and profitable bearers, olives do well, and figs promise exceedingly well; apricots find an early market three weeks ahead of the California product. Peaches grow to perfection, but are light bearers, and it yet remains to find the right kind, suited to this region. Nearly all the California grapes can be grown successfully, and the climate insures the production of the raisin grape. There is room for a profitable industry of this kind, and for the cultivation of the table grape; for all varieties reach maturity early and are the finest grown in the country. Two, and sometimes three crops are gathered from the same vines. Both the orchardist and the viticulturist will find here an inviting field, the local market alone sufficing for a considerable acreage of fruit and grapes.



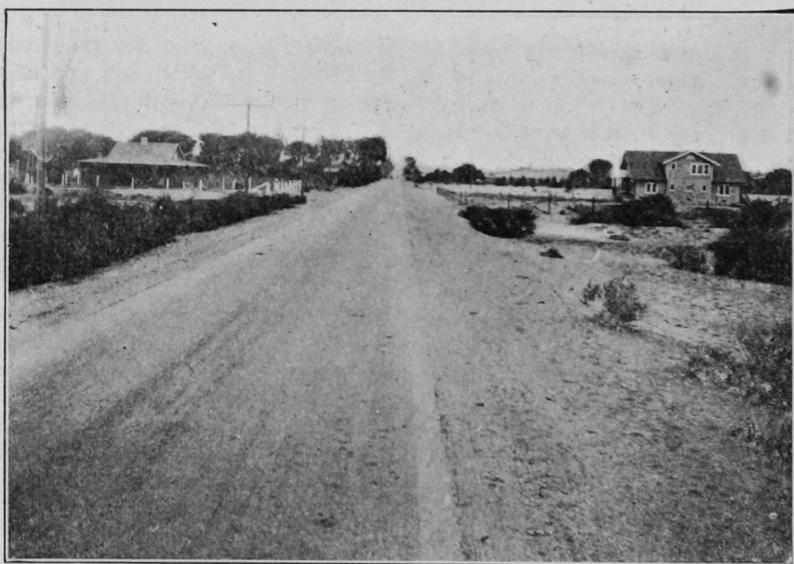
Yuma County Champions Every "Good Roads" Movement



"Good Roads"—Necessary to the Farmers



Glimpses of the Fifteen Miles of Warrenite Road—Yuma Valley



"Good Roads," Also a boom to Real Estate



Main Street, Yuma, Looking South

Citrus Fruits.

In the production of citrus fruits the mesa land, separating the valley below Yuma and that above, and which also forms part of the Yuma Project, excels. There is but one frostless orange belt in all the United States, and this is located on the mesa, or table land, at Yuma. To mention this mesa briefly, one can say that this tract, which comprises seventy thousand acres, will soon be brought under irrigation. It is not yet ready for formal entry, but the Mesa Auxiliary Project Bill, which provides for the watering of a full forty thousand acres, will soon be presented in Congress for final action thereon. When water is supplied, the Yuma mesa will ultimately become the richest body of land for citrus fruit growing in the United States. In forty years there has never been any frost in this section, and the oranges, grapefruit and lemons grown thereon find their way into the markets of the country from four to six weeks before the California fruits, and are the last to leave the markets. The best authorities are unanimous in declaring that the Yuma grapefruit, by reason of its exceeding juiciness and freedom from the excessive bitter which characterizes that grown elsewhere, is the choicest in the world.

Limes, and the famous Sicilian citrons of commerce, also command attention. Yuma lemons are a truly wonderful product. They have a higher percentage of juice and acidity than those of any other region in the world. Lemons and limes require a more moderate climate and a higher winter temperature than any other species of the citrus family, and they are more sensitive to climatic changes than any other fruit. Yet long years of experience in the dooryards and orchards of Yuma prove that here are found all the requisites for the successful cultivation of both.

Nuts.

Almonds, pecans and walnuts can be raised with great profit, almonds, especially, being marvellous moneymakers.

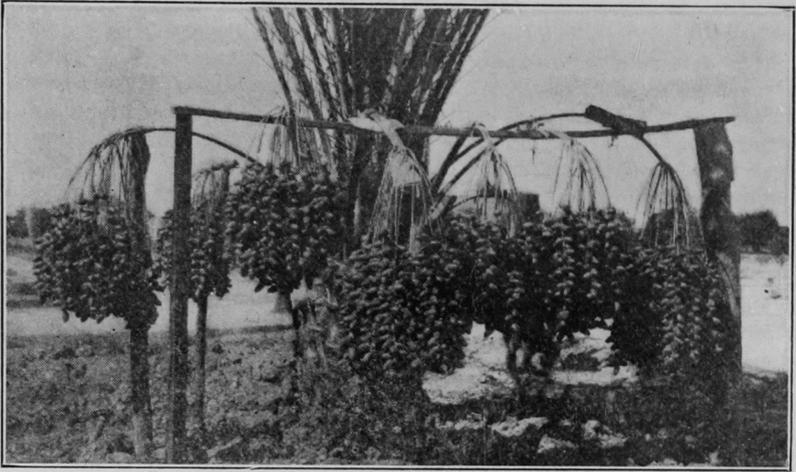
The Date Palm.

The date palm is generally conceded to be the tree which, by long cultivation in a similar region in Africa, has become peculiarly adapted to the soil and climate of such an area as this. The date palm is the oldest known tree cultivated by man. Its history is coextensive with that of civilization itself. From time immemorial it has been one of the greatest boons nature has bestowed upon the nomadic tribes of Southern Asia and Northern Africa.

The date palm has been grown for many years in various portions of the United States and Mexico. We are doubtless indebted to the early Mission Fathers for its introduction to American soil. They planted the date palm at the Catholic missions from Florida to Mexico through Southern New Mexico, Arizona and California, whenever climatic conditions were found favorable,



The Date Palm, A Permanent Food Giver.



A Yield of 200 Pounds to the Tree—Yuma 1917

and the plantings of those early days remain until the present time, in Sonora, and are still producing a good quality of fruit.

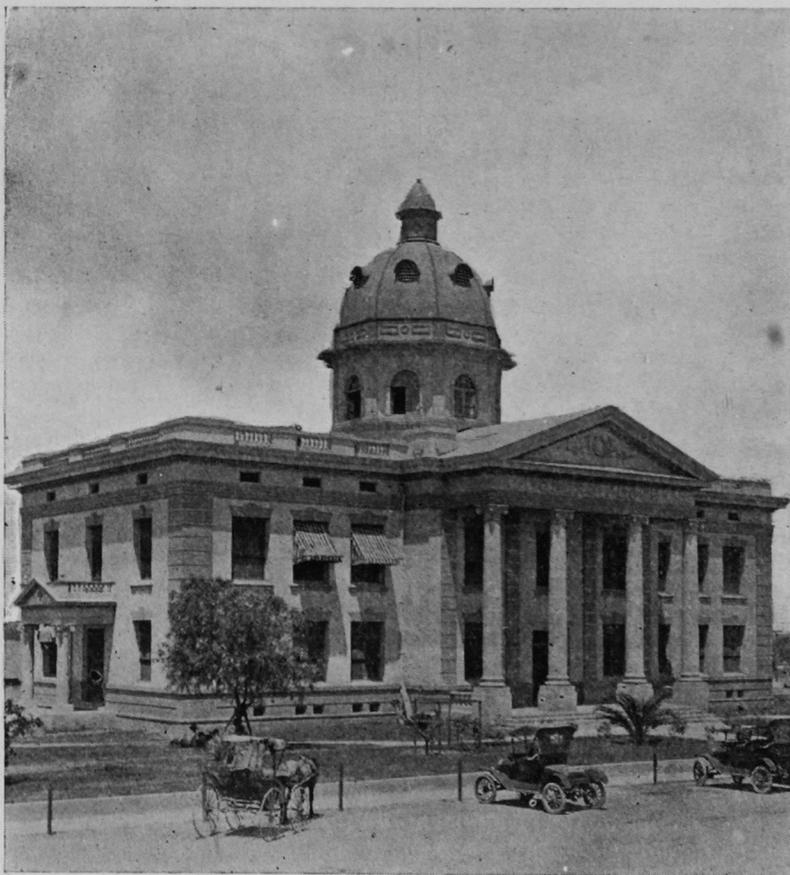
The Mexicans of Sonora are wont to say: "El datil es el arbol de porvenir" —"The date is the tree of the future." And truly it is the truee of the future for Southern Arizona. The climatic conditions here are so similar to those of the regions where the date is known to flourish that there is a fair prospect that date culture will become an important industry of the arid regions of the Southwest.

The date palm has been grown at Yuma for more than forty years, and some of these early plantings have been bearing for nearly twenty years. Numerous specimens of bearing date trees may be seen in and around Yuma. It will grow upon nearly all kinds of soils where there is sufficient irrigation and the requisite amount of heat. Lean sandy soils of the desert with a small percentage of clay and charged with alkaline salts are the best for the date culture. The amount of fruit produced in a single season by Arizona seedlings seven years old is recorded as upward of 200 pounds. A large experiment garden has been established at Yuma under the auspices of the University of Arizona, in which are being grown many varieties of dates from Spain, Persia, Arabia and other date centers of the Old World. This garden, planted twelve years ago is now one of the show places of Yuma.

Date culture is an established industry of the Yuma country, and the yield of the date trees and the income from the sale of the fruit is astonishing to the new comer. Not many date orchards are yet in bearing, but a number have planted fair sized orchards. The old trees, which have been bearing fruit for a number of years, have demonstrated that an acre of land planted to date palms when it comes into bearing will yield a larger profit than any other crop of fruit. Every condition combines at Yuma to make this the ideal date country. The demand for Yuma dates is much greater than can possibly be supplied for many years.

When one considers the value of an acre of land in the Yuma Valley as being worth from \$200 to \$500 per acre because of the great agricultural crops produced, and when one can witness one date tree on an acre of land in the same section producing from \$100 to \$150 worth of dates it is obvious that a date orchard alone would increase the value of an acre of land from \$700 to \$1000. Thus one can reasonably and logically say that the value of the Yuma Valley land in the production of food stuffs is yet unknown. The old Greek scholar, Xenophon, once said that a pound of dates contained twelve times as much nourishment as a pound of wheat.

With the assurance that the date industry can be promoted only in one section of the United States—and that in Yuma, Arizona—and that the returns therefrom are so much larger than those from any agricultural or citrus fruit crop, the time is not far distant when all other pursuits of the soil will give way to this more promising and necessary industry.



Yuma County's Beautiful Court House

Date palm shoots planted from imported trees begin to bear between four and six years. The average amount from such trees varies between fifty and seventy-five pounds. Between seven and ten years of age the fruit becomes of commercial value and will average upward of seventy-five pounds from each tree. Seedlings come to maturity between four and five years. A temperature reaching not lower than twenty-one degrees does not in any way affect the date palm. For during the past 35 years Yuma has had but 145 days in which the thermometer has reached the freezing point, so that the date palm in the Yuma Valley has nothing to fear from damaging Jack Frost.

As many as fifty date palms can be planted to the acre. It is safe to say, therefore, that the date orchards will soon replace the agricultural crops. The date palm is a stable market producer and the price of its fruit in the markets of the country is not so fluctuating as the price of the grain products. This condition of affairs, then, assures the future of the Yuma Valley for the date industry. For since soil and climatic conditions are relatively the same as those throughout the Nile Valley in Egypt and in reality surpassing conditions in Algiers, Tunis and Morocco, it is of first importance that the toilers of the soil give their immediate attention to the cultivation and to the larger development of the date palm.

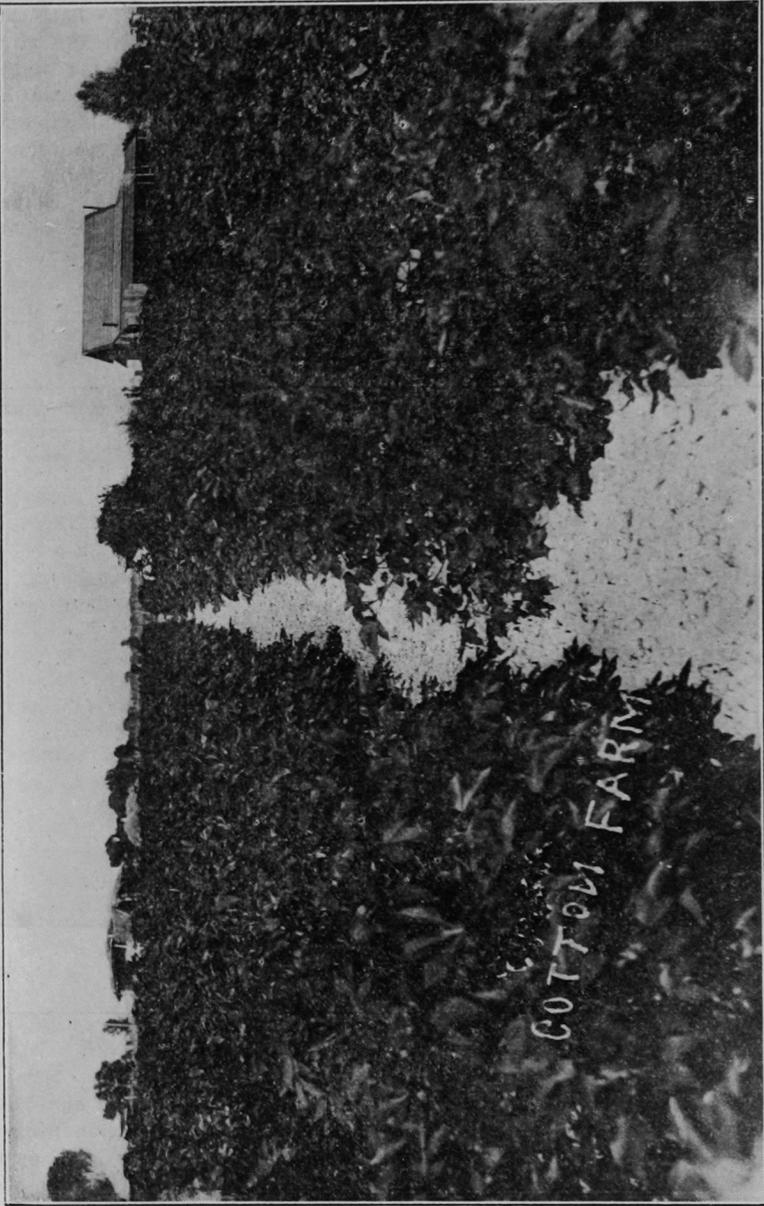
Cotton.

The agricultural resources of Yuma Project lands are inexhaustible and the variety of crops which can be grown with profit is very large. Cotton is a staple product and promises great things when the market once more becomes stable and prices normal. The soil, climate and water combine to produce gross returns sixfold greater than the average cotton lands of the South.

The United States Department of Agriculture has been experimenting the past two seasons with Egyptian cotton, a variety that is particularly well adapted to our climatic conditions. The excellent length, strength and fineness of the Egyptian cotton fiber gives it a market value nearly twice that of short staple upland cotton. Average gross returns of \$350 per acre can be depended upon in cotton culture.

Three varieties of cotton are raised in the Yuma Project; the Mebane, Durango and the Egyptian-Yuma. The short staple king will produce from one and one-half to sometimes over two bales to the acre. The Durango will produce about the same amount per acre. Heretofore, the Mebane or short staple cotton has been largely grown throughout the project. Out of 12,342 acres reported to be in cotton in the project, June 1, 1917, nearly 10,000 acres were planted to the short staple variety. The remainder was planted to the Egyptian-Yuma, or long staple kind. The year of 1918, since the past year has proven that the Egyptian-Yuma cotton is worth more to the producer than either of the others, will no doubt witness the greatest acreage in Egyptian-Yuma. For while the short staple cotton sold for thirty cents per pound, the long staple at the same time was selling for 71c a pound. One can safely state, that because of the immediate and future demands for cotton that there will be nearly 20,000 acres planted in the Yuma Project this year.

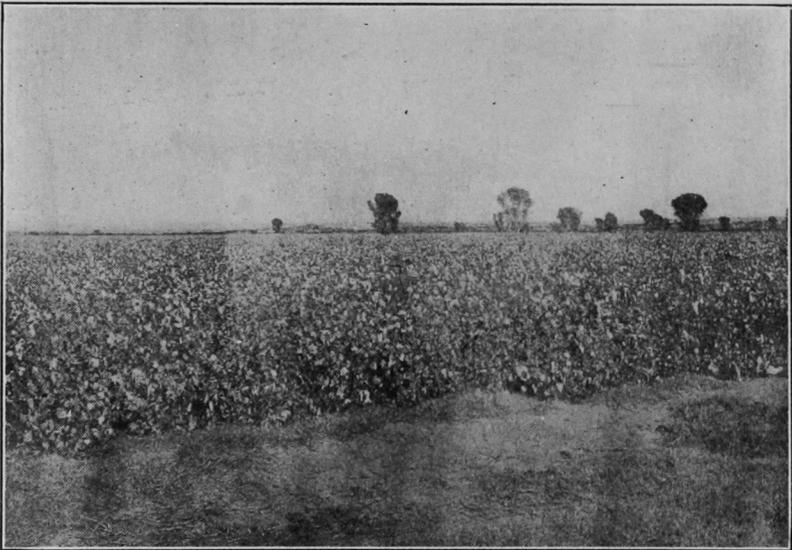
During the past year there was only one long staple cotton gin in the project, and that one located in Winterhaven, California, across the



A Yuma Valley Cotton Farm—1917

Colorado from Yuma. The cotton growers of the Yuma Valley have been promised a long staple gin whose capacity will easily take care of all the Egyptian-Yuma cotton raised in the Valley. Thruout the entire project there are four short staple gins.

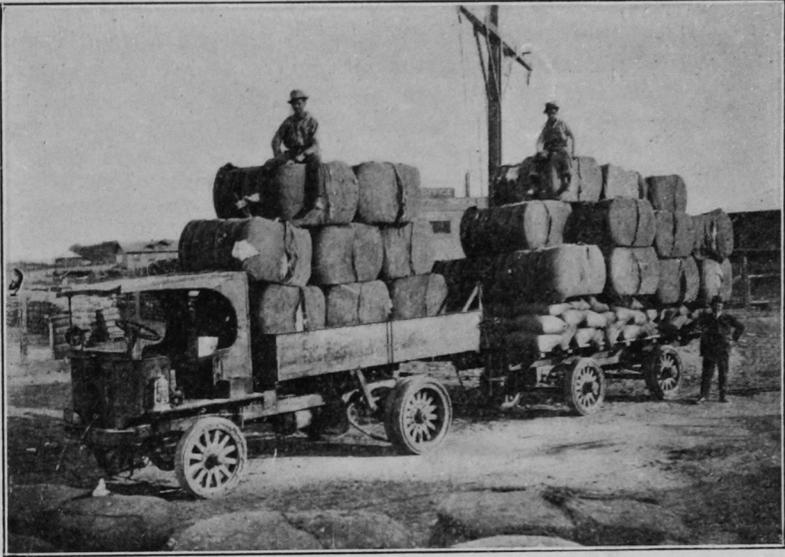
Short staple cotton seed has sold for \$60 and \$65 a ton. The long staple cotton seed, especially the Pima variety, is being contracted for at five cents per pound. The difference between the Egyptian-Yuma and the Egyptian-Pima cotton, proven by experimentation, is that the Pima kind is a little longer in fiber than the Yuma, and is also a very high grade. It can be grown on a very small area. It is native to the Nile country but the past year has shown that it will thrive most prolifically in the Yuma Project. Now that cotton growing is a decided success it is meaning much for this region and can be marketed readily for cash. The abundance of water, sunshine, and rich soil as well as the intense summer heat makes the Yuma Project one of the greatest cotton producing regions in America.



A 32-acre Cotton Field in Bloom

Boll-Weevil and the Pink Boll-Worm.

So far as is known the cotton boll-weevil does not exist in the Yuma Project nor in the state. At the present time there are 23 cotton pests in Arizona, as compared with 42 east of the 98 meridian. There is in operation a strict quarantine order prohibiting the importation of cotton seed. By this order the state is able to keep itself free from both the cotton boll-weevil and the dreaded pink boll-worm; this last insect being especially characteristic in the cotton fields in parts of Texas. The farmer then, has little to fear from these pests when contemplating the cultivation of cotton.



Baled Cotton Ready for the Cars.

Stock Raising.

The question of the productiveness of irrigated lands has long ago been settled in the affirmative. No portion of the country where the farmer depends on rainfall can compare with that in which he is absolute master of the moisture.

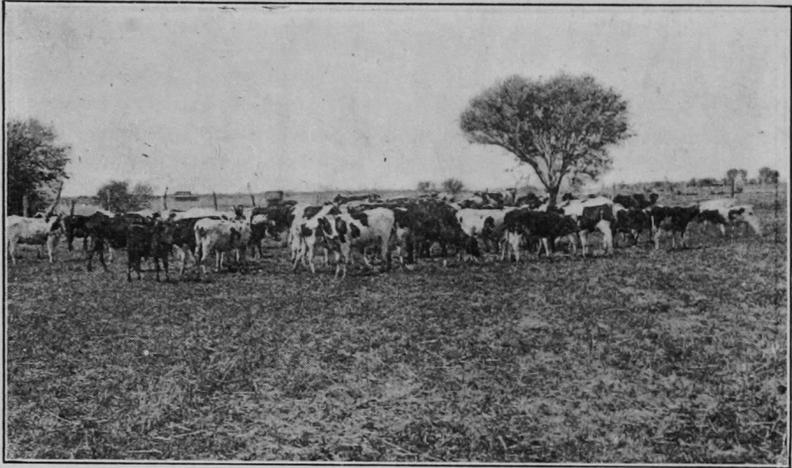
In all irrigated countries the soil products are rich in nutritive values. This seems to be part and parcel of plant and grain growth.

Some sections are more adapted to stock fattening than others, perhaps, because of an added richness in the food, but the greatest contributing cause is the climatic conditions. All that portion of Arizona adjacent to Yuma, and subject to irrigation by the waters of the Colorado River, as diverted by the United States Government dam at Laguna, is especially adapted for stock fattening, for both the foregoing reasons.

The silt of the Colorado River carries a fertilizing value each year of \$3.57 per acre, as determined by repeated Government analysis, insuring for all time the same nutritious food grown today.

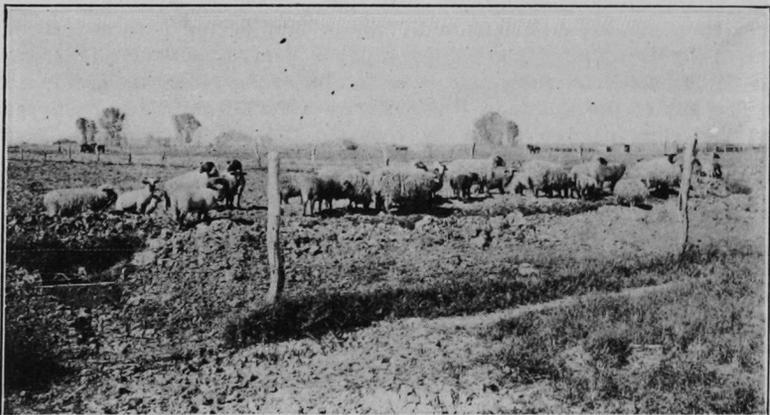
The most convincing proof that the climate could not be improved upon is in the fact that year after year cattle have been fattened here for the Los Angeles and San Francisco markets, and the critical buyers bear evidence that, not only is the beef as good, but that it is made in less time than in any other portion of Arizona. This would be the theoretical conclusion, and it is corroborated by actual trial in the feed lots and pasture fields.

Another point of advantage to the Yuma irrigated land as a fattening center is its proximity to the best breeding ground of the world—that is, the borderland of Southern Arizona and Northern Sonora, from which cattle can always be had at Kansas City prices less the freight.



Live Stock Fatten Fast on Yuma Valley Pastures.

On Yuma Valley and other Yuma Project lands there are about two thousand dairy cattle. From the various dairies the local demand for milk in Yuma and surrounding country is supplied. The Southern Pacific Railroad Company and its dining car service is supplied from this locality on the Yuma Division, from Gila Bend to Indio. The Yuma Ice Company's dairy in Yuma takes all of the milk and cream that is not sold direct to consumers. This dairy has a capacity of 2,500 pounds of butter per day. It could use the milk and cream from a largely increased number of cows. There are some fine herds of dairy cows in Yuma country. Holsteins, Jerseys and Here-

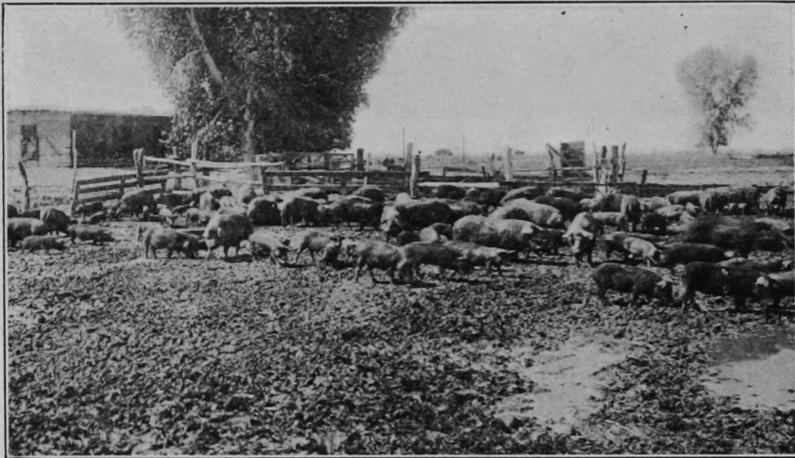


Sheep Are Proving a Good Investment.

fords. At no place in the country can the dairyman find a better opening than in Yuma and its adjacent farm land. Abundant feed, equitable climate, plenty of water, a good market all combine to make conditions ideal.

Fattening beef cattle for the market on Yuma Valley alfalfa and other feeds has become a staple and profitable industry. During the winter of 1917 more than 700 head of feeders were brought into the Yuma Valley at one time to be fattened on the richest alfalfa in the world. It is a fact that the alfalfa grown in the Yuma Valley has a much larger proportion of fattening properties than alfalfa grown in a damp climate. It is extremely rich in the elements which make beef and butter.

Range cattle can be bought and fattened to great advantage, and horses develop very rapidly on the rich pastures. Dairy products are in constant demand, and the business has behind it at once a good market, a good climate and good feed. Slight shelter is needed, mud need not be, and abundant green feed out of doors insures the health of dairy stock.



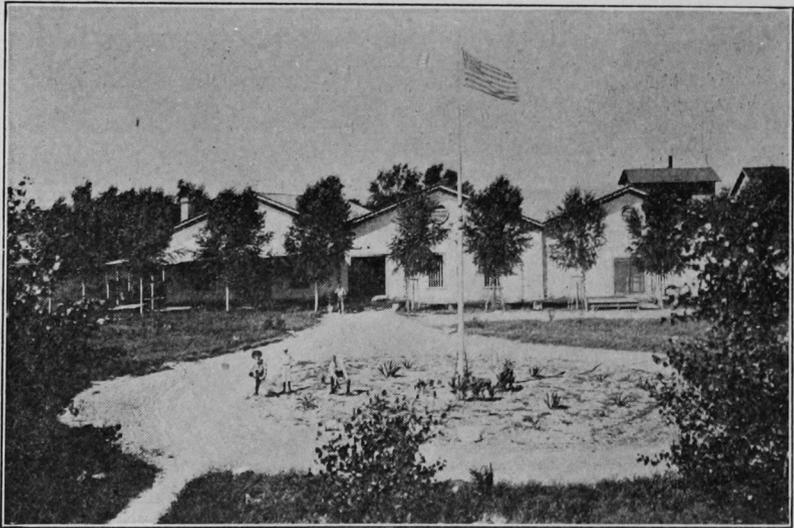
“Pigs Is Pigs” in Yuma Valley.

Swine.

There are mortgage lifters and mortgage lifters, but there are none that give results quicker in the Yuma Valley than Mr. and Mrs. Hog. With an abundance of green alfalfa, plenty of water and no cold winters to stunt their growth, hogs come to early maturity. They make good weight and sell for top prices. The hog industry has already assumed the proportions of a big business and is growing as the country under the Yuma Project fills up with new farmers. At the present price of meat there is no industry on the farm which pays better returns for the money and labor put into it. As compared with raising hogs for market in the cold states of Nebraska, Iowa, and Kansas, the corn belt states, raising hogs in the Yuma country is a



Mill of the Red Cloud Mining Company, Yuma County.



U. S. Reclamation Service Headquarters, Yuma.

gentleman's game. Ten full grown hogs can easily be constantly pastured on one acre of alfalfa pasture. With the Yuma Valley's splendid underground drainage there is no stagnant water and the hogs are always healthy.

Car load lots of hogs are shipped to the coast from Yuma every week and the farmers who have turned their attention to the hog industry in the Yuma Valley are on the sunny side of Easy Street. It is well for the individual locating in the Yuma Valley to pick out his job. If he picks out hogs he will make no mistake.

Ostriches and Poultry.

Raising ostriches for their plumage is comparatively a new industry in the Yuma Valley, but one which promises to assume large proportions later on as conditions become normal and the fashion returns. There are a number of ostrich farms on the Yuma Project lands and the richly colored feathers gathered from the birds bring their owners a fine return for time and money expended.

The turkey industry on Yuma Project lands has assumed large proportions. A large number of persons are engaged in it. Turkeys do remarkably well in the valleys and mesa of the project. An abundance of green alfalfa and grain feed which is so easily and abundantly raised, bring turkeys to early maturity. They grow to great size and are as fine and toothsome as can be found anywhere. The demand for turkeys is much greater than the supply and the birds bring surprising returns. A large part of the turkey crop is consumed locally or shipped to nearby mining camps. The surplus goes to the coast markets where the price is equally as good as at home. Some day may see a permanent packing house operating the year round in Yuma.

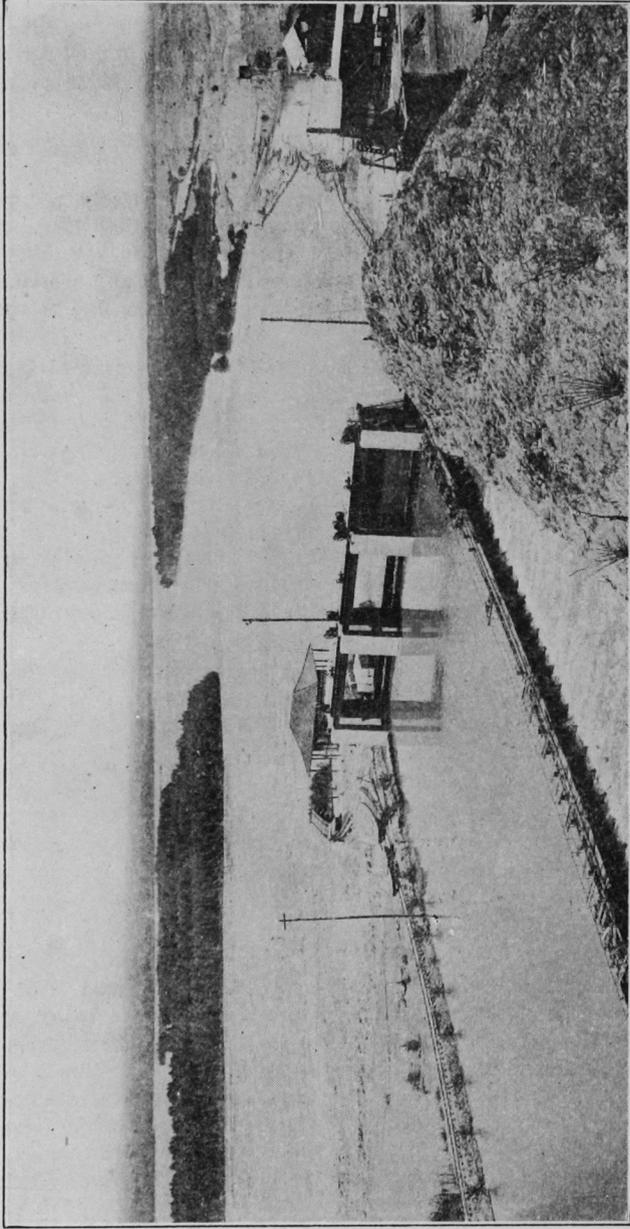
The Yuma Valley is an ideal poultry country and success is assured in the raising of chickens as well as all other kinds of poultry. Large flocks of chickens are now found in the valley which are affording to the ranchers a fine profit on a small investment.

Apiculture.

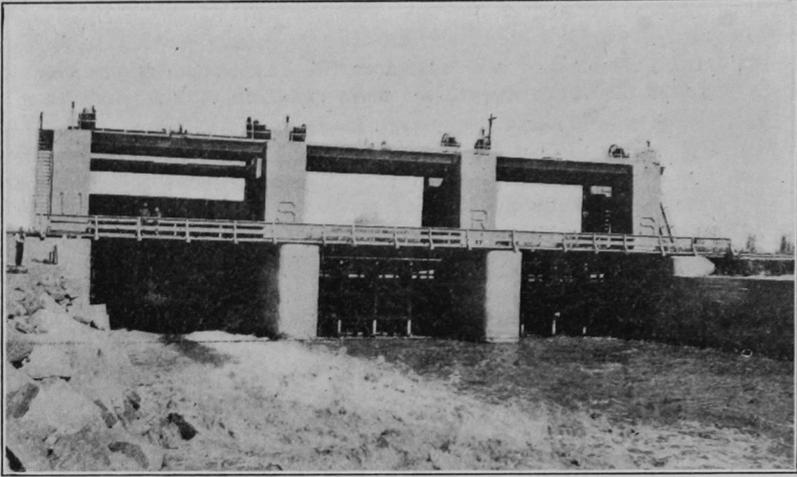
Apiculture has for several years claimed no little attention, and the industry is rapidly becoming more popular. A score of apiaries are without exception producing handsome revenue for their owners.

Mining.

While the great agricultural country tributary to Yuma is of the utmost importance to the business life and progress of the town today, the county's mining industry contributes in very great degree to the distribution of wealth. It is probable that there is not a section of the world of like area possessed of greater mineral richness, and the attention of mining investors is being attracted as it never has before. In a dozen mining districts east and north of Yuma valuable deposits of gold, silver, copper, lead, iron and cinnabar are already opened, and numerous producing mines are helping to make Arizona what it is today—the leading copper producer of the United States.



Flood Water, Colorado River—Headgate and Spillway.



View of Headgates Looking North.

Yuma Project, Arizona—The Great System of Irrigation.

Striking Features of the Yuma Project.

The Yuma Project is the premier project of the United States Reclamation Service. When completed it will carry the waters of the Colorado River to 150,000 acres of desert land as rich in agricultural possibilities as can be found in the world. In the construction of the project many engineering difficulties have been met and overcome. The chief engineering feature of the project is the Laguna Dam, located twelve miles above Yuma. This dam is a division dam and not a storage dam. It is nearly a mile in length, and at either end are located the head gates which control the flow of the water into the canals. The dam raises the river level above it twelve feet, and in the basin above the dam 65 per cent of the silt carried in solution in the waters of the Colorado are deposited, so that the water which is drawn off into the canals is comparatively free from silt.

Here the water which has been brought thru the main canal fifteen miles is dropped into a concrete lined well eighty feet deep, and after passing through a concrete lined tunnel fourteen feet in diameter, pours out of another well on the Arizona side of the river, and is conveyed in canals to the 53,000 acres of land in the Yuma Valley.

The main canal carries sufficient water to irrigate 150,000 acres. Water is taken from the main canal before it reaches the siphon at Yuma to irrigate the San Pasqual Valley (about 8,000 acres), and the Yuma Indian Reservation (about 10,000 acres).

Three miles below Yuma on the main canal a pumping plant has been installed and the water is lifted eighty-five feet to the Yuma mesa where it is distributed in canals to the citrus fruit ranch already there. Electric power will be developed ultimately at Laguna Dam and by the drops in the main canal.

For Greater Arizona

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UNIVERSITY BRIEFS

Dean G. M. Butler, Director of the Bureau of Mines, University of Arizona spent part of last week in the Globe-Miami district, familiarizing himself with recent developments there, especially those on the properties of the Inspiration and Miami Copper Companies. On Tuesday night he was the principal speaker at a banquet attended by 120 engineers, at which time a local chapter of the American Association of Engineers, with 111 chapter members, was organized.

Professor Mark Skidmore, of the Department of Romance Languages of the University of Arizona, has just returned from France, where he was engaged in war work with the Y. M. C. A., and more recently, in educational work with the French government.

County Agent C. R. Adamson reports from Sulphur Spring Valley that one field of Sudan grass just harvested will yield slightly more than two thousand pounds of threshed seed per acre. This seed is already contracted to a commercial seed house at 10 cents per pound, and the grower states that the hay and straw from the field will pay all expense of growing and handling the crop.

President von KleinSmid, who has been absent in the East on business connected with the rehabilitation work for disabled soldiers for which the University has been appointed center for the entire Southwest, has returned to the University.

COLLEGE WEEK

In accordance with a nation-wide movement to encourage fuller attendance at colleges and universities, Governor Campbell issued a proclamation Sept. 5 designating this present week as College Week, and Sunday, Sept. 14, as College Sunday. Calling special attention to the University of Arizona, he urged the people of this state to make use of its exceptional advantages for

their sons and daughters and reminded them that "the places of profit, leadership and power in business affairs, in professional life, and in the public service are being taken in increasing proportions by men and women whose powers of body, mind, and spirit have been disciplined and made effective by severe courses of college training.

Just now the financial rewards seem to go in disproportionate measure to brawn and muscle; but we are passing out of an era of brute force, which we have fought in a winning war to end, and are entering upon an era when knowledge and trained intelligence and right conduct are to be of increasing influence among men and nations."

MANY STUDENTS COME FROM OTHER STATES

The Registrar of the University of Arizona had received on the last day of August transcripts of records of new students applying for admission from forty high schools, colleges and universities outside this State, in addition to those received from twenty Arizona high schools. These transcripts represent about 130 students. Since that date a very considerable number of new applications from students who were not registered last year have been received daily.

The Registrar of the University desires to urge that all new students should have their transcripts of previous training sent to his office at once. They should be sent in by the school which the student last attended direct to the University.

UNIVERSITY EXTENSION WORK

Since the organization of the newly constituted department of General University Extension in the University of Arizona, the Director, Dr. Frank C. Lockwood, has been engaged in planning the work for the coming year, writing bulletins and circulars of information, making out prospectuses of correspondence courses, and preparing other material descriptive of the scope and usefulness of this department.

On Monday, September 15, Dr. Lockwood will start on his first tour,

in his double capacity as state High School Inspector and Director of General University Extension. In this trip he is planning to make the round of the northern part of the state and to visit Jerome, Clarkdale, Prescott, Williams, Flagstaff, Kingman, and Willcox. At each town visited it is probable that some such program as the following may be carried out: One day to be devoted to inspecting the High School in its various aspects and activities; an address of fifteen or twenty minutes to the High School students, and an informal meeting with the school teachers and other community leaders. The cooperation of school superintendents and teachers is hoped for in the organization of an Arizona High School Debating League. On one evening there will be an address given by the Director on "Education and Democracy," or some other educational theme that will explain and interpret the work of University Extension, Community Service, etc. It is hoped that it may be possible to revive in each community the very representative War Work Committee, that performed such excellent service during the War, and to enlist their services and cooperation as a permanent local University Extension Committee, thru which the Extension Department may work in their effort to bring the resources of the University into intimate and serviceable relationship with the community life of each town.

COLLEGE EDUCATION TWO CROPS FROM ONE PLANTING

The institutions of learning the country over are making very special efforts this year to meet the new and larger demands put upon them. The maintenance of higher education in all its varied forms is essential to American civilization. The amount of illiteracy revealed by Army tests has been rather shocking to us Americans who pride ourselves on our free schools and our compulsory education laws. More and better educated citizens are needed and needed badly. Learning must be encouraged. We must "take up the torch" of our fallen brother students and pass it on in ever increasing numbers.

The University of Arizona is looking for the largest registration in its history, and hopes that all the high schools of the State will send a big quota of new students to bring home to their communities their fair share of culture and training. Matriculation and registration of new students will be held on Friday and Saturday, September 19 and 20, and on Monday, Sept. 22, the registration of old students will take place.

TUCSON WEATHER DURING AUGUST

In his Weather Observations for the month of August, Mr. C. N. Catlin of the University of Arizona, writes as follows:

"In the report for July, noting the unusually heavy rainfall for that month, the observation was made that the Augusts and Septembers following other record-making Julys had always had more than the average rainfall for those months. August of this year, however, has proved to be an exception. The local rainfall for the month was only 1.82 inches, lacking .69 inches of the average rainfall for August. All except .10 inches of this rain fell during the first two and last two days of the month.

The temperatures for the month show no radical departure from the normal temperatures for August. The summary is as follows:

Maximum, 105.
Minimum, 65.
Mean maximum, 96.2.
Mean minimum, 69.9.
Mean, 83.2.
Greatest daily range, 36.

The Aeronomist of the University of Arizona reports that the Salt River Valley Experiment Farm is running an experiment this year in which many farmers are considerably interested. Both hegari and feterita were planted in the early spring and were cut and put in the silo about August 20. The fields were then cultivated and irrigated and the second crop will be harvested in the late fall.

It is not expected that this second growth will make as heavy a yield as the first cutting but nevertheless it should yield sufficient to more than pay for the trouble. The yields from the first cutting were as follows: feterita, 2042 pounds of grain and 1.4 tons of fodder; hegari, 1383 pounds of grain and 5.3 tons of fodder. In both cases the grain was headed from the standing stalks and allowed to dry and then threshed. The weights given are the threshed grain.

The Yuma Project duplicated on 5495 acres in 1918 and expect to double that amount in 1919 and have raised just as good crops, (in some cases, better) on the second crop, and this project has been duplicating on their acreage every year.

Very truly yours

Secretary Yuma County Commercial Club

**DATES WHEN THE MINIMUM TEMPERATURE
FELL TO AND BELOW 32 DEGREES:**

JAN.	FEB.	MAR.	NOV.	DEC.
1878—				13
1879—9-11-16				24-25
1880—29-30	1-12-13		17	
1881—		15		
1882—11-12-13				
1883—20-21	4-7			
1884—NONE.				
1885—NONE.				
1886—3-4-6			20	
1887—11-12				22-23-24
1888—1-8-11-12- 15-17				
1889—NONE.				
1890—10-11-12-13- 14-21-22				
1891—8-9-10-11-14	11			9 19-24-25-26
1892—1				10-13-16-19-20
1893—	16		19	
1894—4-7-8	2-3-7- 12-24			
1895—				19-24-26-28- 30-31
1896—6				
1897—				16-17-18-24
1898—11-14-17-22- 25				11
1899—2-6	6-7			
1900—				30
1901—3-4-11	2			14-16
1902—28-31	1			
1903—	3-4-7			
1904—30				
1905—NONE.				
1906—1-2-4			25-30	
1907—NONE.				
1908—	14		25-29-30	
1909—				4-5-18-19-20
1910—3-4-5-6-7-9- 10-12				27-29-31
1911—1-2-3				9-12-14-15-17- 18-19-25-26- 28-31
1912—1-3				

**MEAN MONTHLY HUMIDITY BY MONTH AND
YEARS FOR THIRTY-FOUR YEARS:**

JANUARY	46	JULY	44
FEBRUARY	45	AUGUST	48
MARCH	43	SEPTEMBER	46
APRIL	38	OCTOBER	44
MAY	39	NOVEMBER	44
JUNE	37	DECEMBER	46

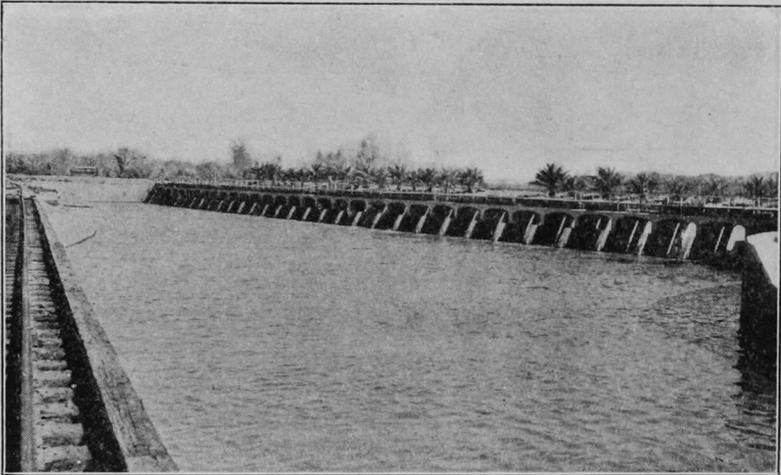
**WHERE JACK FROST
NEVER DOES ANY
DAMAGE**

This data is taken from the U. S. Weather Bureau at Yuma, Arizona, and shows how many times the freezing point has been reached since the establishment of the government weather station here, in 1878. The weather station is not on the mesa, where our citrus fruit lands are, but is located on the banks of the Colorado river which shows that in 35 years we have had 145 days out of 12,682 days that have reached freezing point in our lowlands, while our mesa lands, which are 80 feet above our lowlands, have never been touched by frost, and it is an acknowledged fact that our mesa land is the only frostless belt in the United States. It is also a fact, which should be taken into consideration, that our freezing spells last about two to five hours out of twenty-four, each freeze being followed by a nice, sunny day which instills warmth into the soil and counteracts all damage which may have been started by the freeze.

Headgates and Works at Laguna Dam.

These head gates control the flow of water into the main canal of the Yuma Project. They are raised and lowered by electric machinery. Similar head gates, only smaller, are located on the Arizona end of the dam, controlling the flow of the water into the main canal on that side of the river.

The Laguna Dam across the Colorado River, including the head gates and the diversion works were erected by the Reclamation Service at a cost of approximately \$2,000,000. The dam and works connected with it have been subject to the acid test by the Colorado river. In June, 1914, at flood tide, 155,000 second feet of water poured over the face of the dam. The water was five feet deep between the head gates, a veritable Niagara. The dam and works stood the test with no appreciable damage.

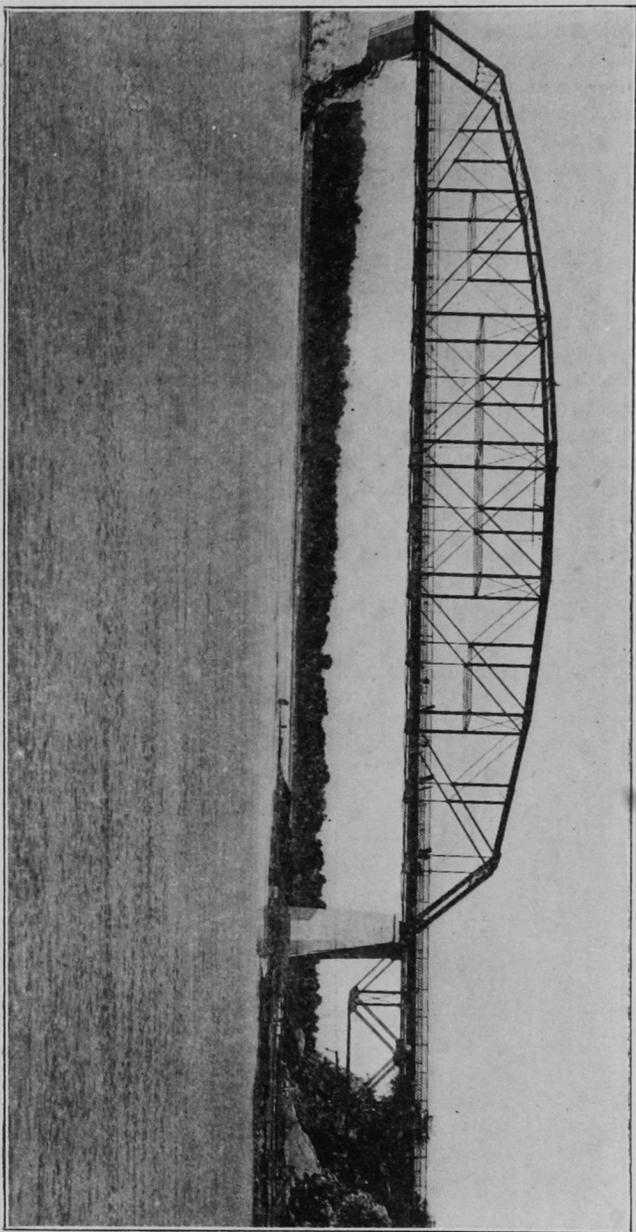


Settling Basin, Laguna Dam.

The entire construction of the dam and diversion works are of the most substantial character and were built to stand for all time. Six years have passed since the completion of this part of the project and every part of the work has stood the test of controlling the flow of the Colorado at will.

The Yuma Project is blessed with an abundance of water. In dry seasons, and seasons of abnormal snow and rainfall alike, the Colorado carries many times more water than the project will ever need, no matter how much its acreage is extended.

In the basin above the dam about 65 per cent of the silt in the waters of the Colorado is permitted to settle. The water delivered to the canals is thus relieved of that much solid matter carried by the river. When the basin fills up with silt the gates are raised and the accumulation is washed thru the spillway and sent on down the river.



The Colorado River—Chief Factor in Yuma's Prosperity.

Arteries of the System.

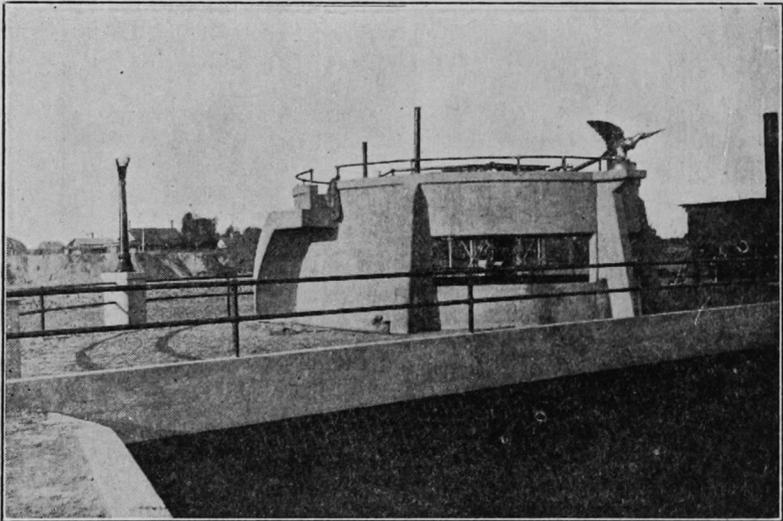
The Yuma Valley, lying down the Colorado River, south and west of Yuma, is the largest unit of the Yuma Project, containing approximately 53,000 acres of arable land. This unit of the project is practically completed. Water is available for all of its rich acres. Water is conveyed from the Yuma siphon in two main canals, one on the west and the other on the east side of the valley, diverted at intervals as necessity demands into laterals which carry it to every farm.

The valley is 24 miles long and from three to seven miles wide, and is practically level, sloping gently to the south and west to conform to the fall of the river.

About 40,000 acres of this land are now under water and in a state of cultivation. The remainder is raw land, some of which is being leveled and put into crops all of the time. It is expected that this entire acreage will be put in crops within the next year or two.

The valley is protected from the Colorado River and its flood waters by a levee constructed by the reclamation service, extending from Yuma to the international line. On top of this levee, for further protection, a Government-owned railroad has been built, twenty-three and one-half miles in length. The river side of this levee has been blanketed with rock to a good depth, and the valley has every assurance that the waters of the Colorado when at flood will give it no trouble.

The growing season is twelve months and the harvest is always in swing. Farmers in the Yuma Valley are prosperous and becoming more so with each passing season. For health, wealth and pleasure the Yuma Valley is in a class by itself.



The Yuma Project Siphon Conveying Water Under the River to the Yuma Valley.

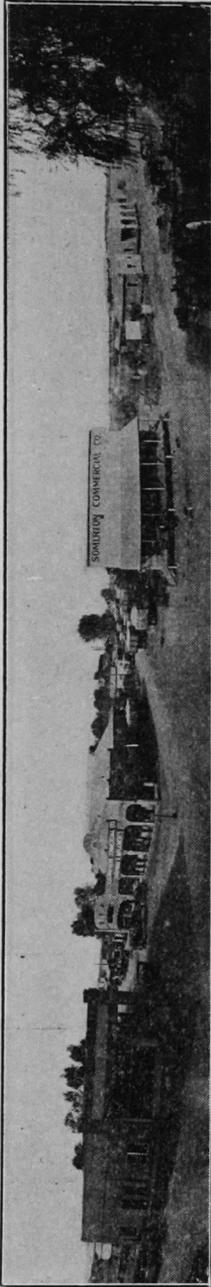
Towns in the Yuma Valley.

One of the most prosperous sections of the Yuma Project is that located some fifteen miles below Yuma, in the valley, whose center is known as the City of Somerton. A little over a year ago there were in this locality less than a dozen residences; today this little center can boast one of the liveliest business sections for its size in the Yuma Project. There are several stores, a newspaper, two moving picture theatres, a rooming house, a Woman's Club House, a church, two banks and a short staple cotton gin. The business men have recently organized the Somerton Civic League, which organization directs its attention to the furtherance of the welfare of the community. One of the great improvements now to be put forward, namely, that of paving the streets, was promoted by this organization. Somerton is now an incorporated city with a mayor and council. The city of Somerton derives its name after this manner: In the early days here, there lived a man named Captain Yokum, who had formerly lived in Ohio or Kentucky, and very much desired to have this place named after his native town, "Somerton," and it was so ordered and a postoffice established here. The naming of this city occurred in October, nineteen years ago.



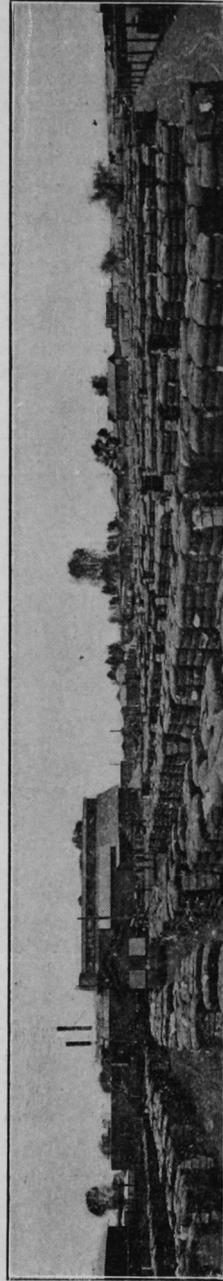
Business Center—City of Somerton, Yuma Valley.

With a rapidly developing agricultural country about it, Somerton offers many and very attractive inducements to the business man and the real estate investor. A proof of its tremendous progress comes through the recognition of this fact, that its school census has doubled within the past year. There is great need for more houses and there is much land available for home building. One of the most attractive features in the Yuma Valley is the splendid Warrenite road connecting the county seat with Somerton. When this road is continued on past Somerton it will place the city of Somerton in a unique position. To say that Somerton is destined to grow is to state a fact but mildly. For it may be reasonably stated that this community will have in the near future a population of not less than 1500 people.



The above picture gives a panoramic view of the City of Somerton. Too much can not be said of the opportunities which this city offers to the merchant or real estate investor. The rapid progress it has made in the past year is nothing more than the result of the concerted efforts of its aggressive citizens.

Below is a view of the short staple cotton ginned at the gin in the City of Somerton in the fall of 1917. Somerton has every facility to care for a much larger crop this season.



Gadsden is another new town in the Yuma Valley. It is located nineteen miles down the Colorado River from Yuma on the U. S. R. S. railroad. It has daily passenger, express and freight service by this road. Gadsden is located in the richest part of the Yuma Valley with a large territory tributary to it. It has a newspaper, lumberyard, restaurant, general store, postoffice, cotton gin, garage, blacksmith shop, schoolhouse, bank and churches, and a moving picture theatre. There is now being built a small modern hotel, and the town is growing rapidly. As that part of the valley develops and increases in population Gadsden will grow and become an important commercial center. It has everything around it to make it a good town.



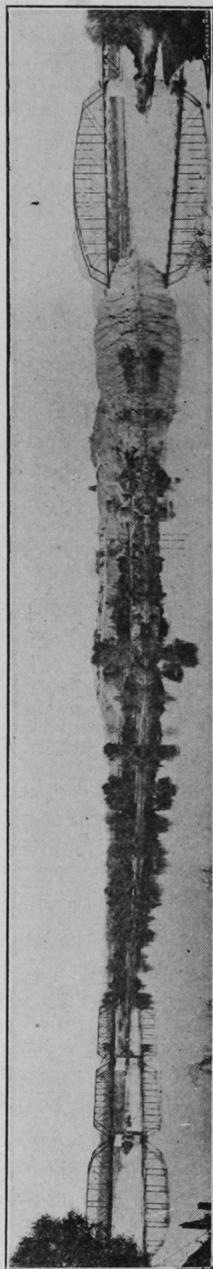
Gadsden, Arizona—A Valley Town With a Promising Future.

Somerton-Gadsden Roadway.

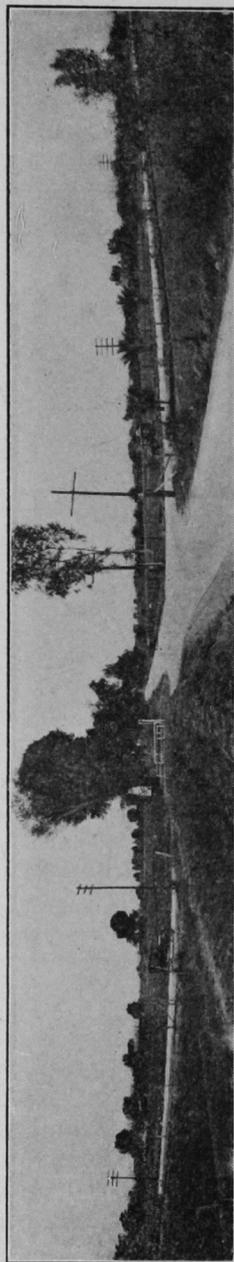
Somerton receives a good part of the trade from settlers living along the Somerton-Gedsden road clear to the boundary line. At the present time the Warrenite roadway does not extend from Somerton to Gadsden. The splendid roadway between Yuma and Somerton has contributed greatly toward the progress and growth of both these cities. The recognition of the need of the continuation of this road to Gadsden is now acknowledged by all, and the citizens of the town and the County Supervisors are bending their efforts to bring about a better condition of the Somerton-Gadsden highway.

Yuma County Leads State in Road Building

Yuma County is engaged in an ambitious program of building permanent highways. In the fall of 1915 an issue of half a million of dollars of Highway bonds, which had previously been voted by the people of the county, were sold at a good price. The money was expended by the Board of Supervisors in building an extensive mileage of permanent highways in the Yuma Valley and in other parts of the county. The roads radiate from the city of Yuma the county seat, to all parts of the county. The road now completed from



Panorama View of Colorado River and the Fort Yuma Indian School Opposite Yuma.



Four Corners, Yuma Valley—A Section Showing Good Roads Connecting Yuma and the Valley.

Yuma down thru the heart of the valley to Somerton, with some lateral roads leading off from this trunk line, is built in a most substantial manner and is as fine a piece of road as can be found in the Southwest, equaling anything to be seen in Southern California. The additional mileage which has been built of permanent but cheaper construction has given to Yuma Valley between 50 and 60 miles of improved highway. Yuma county is progressive and the people believe that the best roads are a good investment. The construction of this large mileage of good roads in Yuma Valley has not only given the people a splendid and easy road to Yuma and their market, but has tremendously increased the value of the valley lands. The entire valley is improving rapidly, because of highway improvements. Better homes are being built, new school houses are being erected, new land is being brought under cultivation and the building of these roads but accentuates the air of prosperity which prevails. The Yuma Valley is fast becoming one of the most beautiful valleys to be seen anywhere, where comfort, peace and plenty permanently abide.

An Abundance of Road Building Material.

Eighty miles of Ocean-to-Ocean Highway, the Borderland Highway and the Southern National Highway lie in Yuma County and is being completed by the board of supervisors out of the half million dollar bond fund. These three cross country highways use the same line of travel from Phoenix, the capitol of the state, to the coast. They enter the county of Yuma on its eastern border near Agua Caliente Springs, pass thru the village of Palomas, cross the Gila River on the new concrete and steel bridge at Antelope Hill, travels the rich Antelope Valley and follows the valley of the Gila by Dome into Yuma. This stretch of eighty miles of road is now completed and is one of the finest pieces of road on any of these national highways, east or west.

Near Dome, eighteen miles east of Yuma, the county has located a mountain of fine road building stone. Here an elaborate plant has been erected for crushing this stone and loading it into cars by which it can be transported to the nearest point to the construction work. There is an abundance of this road material to build every mile of road in the Southern part of Yuma County. This crusher plant is complete to the minutest detail. Roadbuilding experts say that this material is the best they have ever seen.

From Yuma, California has built the road west carrying it over the famous sand hills on a plank road into the Imperial Valley. From Imperial Valley the road is completed to San Diego and from there to Los Angeles. It is not too much to expect that during the next winter one hundred automobiles a day will pass through Yuma touring from one part of the country to the other.

A Link in the Ocean-to-Ocean Highway.

The new reinforced concrete bridge already constructed across the Gila river at Antelope Hill, is in Yuma County. Until this bridge was completed there was no highway bridge across this troublesome river from its junction with the Colorado at Yuma to Tempe, a distance by the meanders of the river of more than 300 miles.

This bridge was built at a point where solid bedrock was found for the concrete piers. Its southern end is anchored to Antelope Hill, a notable mountain of granite. The bridge is of the most substantial construction and is built to stand the stress of the mighty river for all time. The bridge was dedicated to public use in the Fall of 1915.

This bridge was built by the State of Arizona, jointly with the County of Yuma, and cost \$60,000. It is a link in the Ocean-to-Ocean Highway in Yuma County. The Gila river has ever been a terror to the motorist. That terror is no more. The bridge is fifty miles from Yuma and before reaching Antelope Hill the Ocean-to-Ocean Highway passes thru the beautiful and fertile Antelope Valley which is rapidly being brought under cultivation by a thrifty and industrious class of pioneers.

Yuma is well situated on the high banks of the Colorado. Its history is most interesting. When the Declaration of Independence was signed at Philadelphia, Father Garces, a Spanish priest, had already founded and partially erected the Mission La Purisima Concepcion on the bluff where, seventy years later, Fort Yuma was built, long after the massacre of Father Garces and his associate priests by the Indians. Not until 1851 did steamboating begin on the river. Later still Yuma became a station on the line of trans-continental stages between El Paso and Los Angeles. It was also a base of supplies for early prospectors who pushed into the Indian-infested but highly mineralized regions to the north.

Afterword.

So the story of the richest land in the Union is ended. It will seem but a fairy tale to those unacquainted with the Southwest—but Yuma people invite every investigation—and as has happened in the past, so will it continue to be, travelers come and go, but always will they leave with enlightened minds regarding the truths we have set forth.

