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CALABASAS

LAND AND MINING CO.

Branch Office

F. B. WEBSTER,
24 Congress St.,
BOSTON.



PROSPECTUS AND REPORTS

OF THE

PROPERTY OF THE

CALABASAS

LAND AND MINING CO.

LOCATED IN

PIMA COUNTY, ARIZONA TERRITORY.

COMPANY'S OFFICES :

ROOM 32, MERCHANTS' EXCHANGE, CALIFORNIA STREET.

SAN FRANCISCO.

Francis & Valentine, Book and Job Printers, 517 Clay Street.

1878.



CALABASAS

LAND AND MINING CO.

DIRECTORS:

JOHN P. JONES,
JOHN CURREY,
E. L. SULLIVAN,
GEO. C. PERKINS,
C. P. SYKES.

OFFICERS:

JOHN CURREY,	- - - -	President
E. L. SULLIVAN,	- - - -	Vice-President
C. P. SYKES,	- - - -	Manager
FRANCIS A. McGEE,	- - - -	Secretary

TREASURER:

ANGLO-CALIFORNIA BANK.

OFFICES,

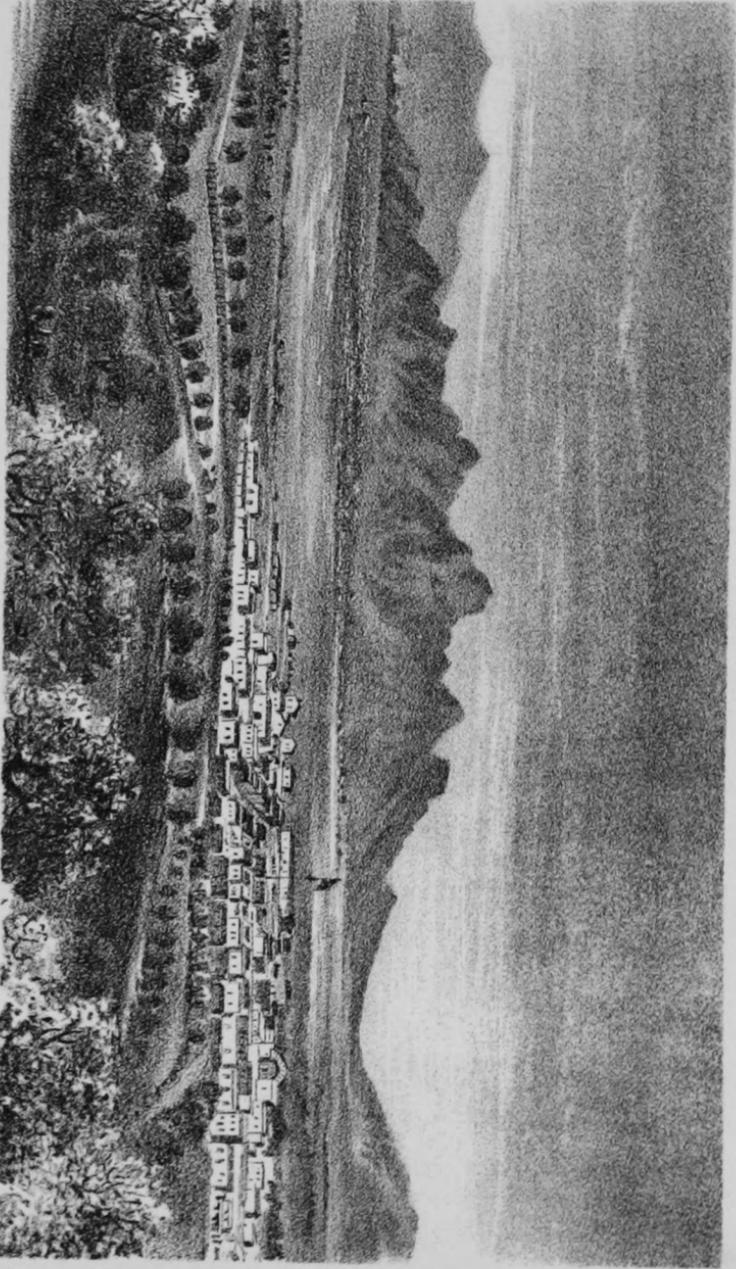
Room 32, Merchants' Exchange,

CALIFORNIA STREET,

SAN FRANCISCO.

83013

TUCSON



LITH. BRITTON, REVY & CO. S.F.

PROSPECTUS

OF THE

CALABASAS LAND AND MINING Co.

INCORPORATED UNDER THE LAWS OF CALIFORNIA

AUGUST 24, 1878.

CAPITAL STOCK: 100,000 Shares, of \$100 Each.

The property of the

CALABASAS LAND AND MINING COMPANY

Consists of the valuable mines of Buena Vista, San Xavier, Patterson, Arizona King, Arizona Queen and The Democrat, with the important town site of Calabasas. These are all situated in the county of Pima, Arizona Territory, and are admirably located as to accessibility and convenience of transportation to and from the mines, while the site of Calabasas has an historic record as an old trading rancho, and for its commercial significance and possibilities. It is situated in the valley of the Upper Santa Cruz River, within ten miles of the Mexican frontier, and on the direct line of travel between Tucson and Sonora. The company, comprising in its directory several of the best known citizens and most respected business men of San Francisco, was organized under the laws of California, August 24, 1878. The company's offices are located at 32 Merchant's Exchange, San Francisco, where all information can be obtained. The mining works are at the San Xavier lode, eighteen miles south of Tucson, and in the town of Calabasas, at the junction of the

SANTA CRUZ AND SONOITA RIVERS.

The town site is situated upon the Calabasas Rancho. The title to this grant was first made under a royal ordinance of the King of Spain, issued at Madrid on the 4th day of December, 1786, and

subsequently recognized by the Mexican Government, after her struggle and separation from the mother country, as shown by the records of Sonora; also by the treaty stipulation between the United States and Mexico, known as the "Guadalupe Hidalgo Treaty," ratified by the United States on the 16th day of March, 1848, and re-affirmed by both governments on the 29th day of June, 1854, by a subsequent stipulation, known as the "Gadsden Treaty." This tract was purchased of the Mexican Government in 1842, by Don Francisco Aguilar, and afterwards by him sold to Gov. Manuel M. Gandara. The title is indisputable, and as good as any ever issued by the Mexican Government.

The title to these important properties rests under the mining laws of the United States, as well as, in the case of the Calabasas town site, under Spanish grants confirmed by Mexican laws, the validity of which are approved after full investigation by able lawyers accustomed to the examination and prosecution of Mexican land grant claims and mining titles. The region in which these properties are located is now justly attracting great attention, not in California alone, but throughout the United States. Arizona is without question, as to mining possibilities,

THE COMING COUNTRY.

Within the past twelve months a wide spread and growing interest has been aroused. This is especially true of the southern portion of the Territory, lying between the Gila river and the Mexican frontier from north to south, and the 110° and 112° of longitude, east and west. The area thus defined, and which is in large part embraced by the map attached hereto, contains the most important town in Arizona, TUCSON; and, also, valleys of the Santa Cruz, Sonoita, Arivaca, San Pedro, and Babocomora; streams, which in an Eastern State, would perhaps be regarded as insignificant, but which in their value as sources of irrigation and consequent fertility, are in Arizona of the utmost importance. The section embraced by our map lies within a remarkable rain belt, which covers an area of about forty miles in width, and takes in the whole of the Santa Cruz valley, the Sierras Atascosa and Santa Rita, to the east and west of the stream, as well as the region for some distance to the east of the valley named. The *Hand Book to Arizona* thus describes the country and the extent and effect of this rain belt:*

*See advertisement on third page of the Cover.



VALLEY of SANTACRUZ
From Santa Rita's.

J. W. BRITTON & CO. S. F.

"The valley of the Santa Cruz is formed by an extensive marine deposit of the quarternary age. The archæan sea which once covered it has vanished, and the valley now receives only the drainage of Central Southern Arizona. Owing to the loose character of the soil, the water soon disappears from the surface. The Santa Cruz, up to Tubac, marks the western limit of a rain belt, which extends eastwardly from that point about one and a half degrees, and to the south about sixty miles. North of Tubac, striking as it does the western spur of the Sierra Santa Rita, its breadth sensibly lessens, and it runs northwesterly, narrowing as it bends, until it fades out at Prescott. This rain belt, or current, evidently comes up from the Pacific through the Gulf of California, pushing inland until it strikes the outlying spurs of the Sierra Madre, by which it is conducted, and falls as rain at the southern extremity of the belt. It again diverges, and moves northward, until it finally disappears at the point already mentioned. The rains are semi-annual, summer and winter, and the chart indicates the total annual fall to be from twenty to twenty-four inches across the entire belt."

The town of Calabasas, as well as the mines on the San Xavier lode are both located on the western line of this important rainfall.

The valley of the Santa Cruz River, in which Calabasas and the San Xavier mines are located, is the natural pathway to and from

ARIZONA TO NORTHERN MEXICO.

It offers the only open valley road to be found on the southern frontier of Arizona, from its termini on the Colorado River below Yuma, eastward to the western slopes of the Chiricahua Mountains. Along it traveled the ancient Toltecs and Aztecs, for it is evident that there must have been for centuries before the Spanish occupation of Mexico, a considerable traffic and intercourse between the communities who built and inhabited the great towns and settlements on the Gila, Salt, Little Colorado, Verde, White, and other valleys in Central Arizona, as well as the Moqui towns on the great Colorado Plateau, the Zuni and other Pueblos on the Rio Grande, and elsewhere in New Mexico and Southern Colorado with the races who created empires and built great cities in Southern Mexico and Central America.

The crumbling ruins of the

CASA GRANDE,

The Gila River near Florence, and of the mounds at La Tempe and elsewhere on the Salt River, as well as the many other evidences of

an extensive town building and agricultural life which are found in Arizona, prove the correctness of this supposition. We know beyond question that the first Spanish invader of Arizona and New Mexico marched from Central Mexico with his forces, through the Valley of the Santa Cruz, camping doubtless on the present site of the town of Calabasas. That expedition under command of Vasquez de Coronado, passed down the Valley of the Santa Cruz in the early Spring of 1540, on the search for the "Seven Cities of Cibola." Father Marco de Niza had entered Arizona by the same route the year previous. This expedition settled the fate of the valley for the next two centuries. Its beauty and fertility attracted the attention of the Spaniards. It became a favorite field for missionary endeavor, and was early occupied and retained by the Jesuit Fathers, who held possession, not undisturbed however, until the early part of the present century. The missions of

CALABASAS, HUABABI, TUMACACORI AND SAN XAVIER,

With those at Tubac and Tucson, mark the northern limit of Catholic endeavor and Spanish enterprise in this direction. The Colonial authorities established military posts at Calabasas, Tubac, and Tuquulson (Tucson), and the latter town still exists, a flourishing frontier city of at least 5000 inhabitants. Under the direction of the good Jesuit Padres, the upper Santa Cruz Valley was extensively cultivated, for at least two-thirds of a century, and many rich mines were opened and worked in the Santa Rita, Atascosa, Arizona, and other neighboring mountain ranges. Early in the present century, the Apaches destroyed the missions and devastated the lands, closing the mines to labor and enterprise; and have, for nearly half a century, until within two years past, made all habitation and exertion in this region—so wondrously fertile, so attractive in scenery, and so

MARVELOUSLY RICH IN THE PRECIOUS MINERALS

—extremely dangerous and more than hazardous.

Old Spanish writers and missionary records are full of references to this region.

HUBERT H. BANCROFT,

The well-known historian of the *Native Races of the Pacific Coast*, discusses the discovery of Southern Arizona by the Spaniards, in the fourth volume of that work. The first reports reached them in Mexico through natives, in 1530. Cabaza de Vaca, shipwrecked in

the Gulf of California, wandered into the central regions, and, returning in 1535, fired the missionary zeal of Padre Marco de Niza, who, with the Negro, Estevan, as a companion, started to find the mythical "Seven Cities." It was his report of (in all probability) the Zuni towns, and those of the Rios de Chelly and Chamas, in New Mexico, which started the expedition of Coronado. For two or three generations, at infrequent intervals, Spanish expeditions, both of war and religion, passed into the wilderness. Missionary settlement begun about the last quarter of the seventeenth century, so far as can be ascertained. There was at one time at least a dozen important missions in the section embraced by the map. Those of St. Gertrude, at Tubac; of St. Joseph, Tumacacori (both in ruins); of St. Xavier del Bac, still in use on the Papago Reservation, and that of

HUABABI MISSION CHURCH,

Founded by Padre Emilia, in December 1690, are located (with the exception of San Xavier Church) within the limits of the grants named in these pages. The Huababi Mission was among the earliest established within what is now the Territory of Arizona. It continued in existence until the first expulsion of the Jesuits, in 1767, and was not re-occupied by them when those at Tubac and Tumacacori were again opened. The history of this mission is recorded in Padre Pfefferhorn's book on Sonora, which states that the missionaries worked

A NUMBER OF MINES

In the neighborhood. There were no less than twelve shafts open, and twenty-two arrastas kept employed. The quartz is spoken of as soft and gold-bearing. The ruins of old walls, crumbling almost to the ground, plainly showing the form of a small church, built of adobe and soft brick, are still to be seen. About two hundred yards from the Santa Cruz, and not over two and a half miles from the town site of Calabasas, there are still to be traced ruins of acequias, arrastas and other rude works, which, with the church, were constructed by Indian labor, under Jesuit direction. The old author named speaks of the ore taken from the mines worked under the mission, as yielding from \$50 to \$210 per ton of 2,000 lbs.

The importance of the Calabasas Rancho is made apparent even by a cursory examination of Spanish records and Mexican history. In an old map, prepared, as appears on the original, by P. F. Petus, Font Tubatano (Tubac), 1770, and first published in Hinton's

Hand-Book to Arizona, Calabasas is marked as "*Pueblo y Real de Uinas y demas poblaciones.*" At the date of this map, the Hand-Book says: "Calabasas was a ranch and mining camp of importance." Spanish records show two hundred silver mines as being worked in that section. Professor Thomas Davis, a well-known mining expert employed in developing the Santa Rita interests, passed up this valley to Mexico in 1830. The San Xavier Church was at the time occupied by a Mexican, and the ranches at Calabasas, Cañon Reventon, Sopori and Arivaca were under cultivation to a limited extent. Mr. Bartlett, of the U. S. Boundary Commission, who passed through the Santa Cruz Valley and encamped at Calabasas in 1851, wrote as follows:

"This Calabasas, I was told by Leroux, was a thriving establishment when he visited it twenty years ago. A large tract of land was then under cultivation, and herds of cattle were reared on the adjacent hills."

Leroux was a famous New Mexican guide of that day. Ross Browne adds his testimony to the value of this region, and especially of Calabasas, in the following: "Proceeding on our journey, we reached the fine old ranch of Calabasas.

THIS SPLENDID TRACT OF COUNTRY

Belongs, I believe, to Señor Gandara (whose titles are now the property of the Calabasas Land and Mining Company), formerly Governor of Sonora. * * This ranch is one of the finest in the country. It consists of rich bottom lands and rolling hills * * embracing excellent pasturage and rich arable lands. Situated as it is at the junction of the

TWO MAIN ROADS FROM SONORA,

the Santa Cruz and Magdalena; it might be made a very valuable piece of property in the hands of some enterprising American. * * * Calabasas (old buildings) presents something of a Mexican military post, which I believe it was in former years. * * Major Stein had his head-quarters here in 1856-57. It was occupied for nearly a year by the First Regiment of Dragoons under his command. It was also temporarily occupied by Col. Ewell—later, a General of the Confederate army.

Ross Browne, the well-known author and artist, thus describes in his interesting *Apache Country*, his entry into this region:

"I had supposed that previous to our entrance into this region, that

Arizona was nearly a continuous desert, as indeed it is from Fort Yuma to Tucson ; but nothing can be a greater mistake than to form a general opinion of the country from a journey up the Gila. The valley of the Santa Cruz is one of the richest and most beautiful grazing and agricultural regions I have ever seen. Occasionally the river sinks, but even at these points the grass is abundant and luxuriant. We traveled league after league through waving fields of grass from two to four feet high, and this at a season when cattle were dying of starvation all over the middle and southern part of California. All along we passed through the richest ranges of pasture and farming lands we had yet seen. Abundance of mesquit, cottonwood, willow, and walnut are found in the river-bottom, and the grass is so luxuriant, that in many places it is difficult to travel out of the beaten track."

Describing a journey into the Santa Rita, the same writer says :

"It was a matter of surprise to most of us how luxuriant the grass was on the mesa, and what an inexhaustible support it affords for innumerable herds of cattle.

Again he writes : As a grazing country for cattle and sheep, the valleys and foothills of the Santa Rita can not be surpassed. Grass of every variety known in Arizona covers the ground all the year, and there is practically no winter for live stock."

THE CLIMATE IS SO MILD,

even in the months of January and February, it is a positive luxury to sleep in the open air. Of wood "the valley of the Santa Cruz furnishes an inexhaustible supply."

Col. C. D. Poston, now U. S. Register at the Florence Land Office wrote of this region from 1856 to 1860 ; that it "is a very rich body of land, and with irrigation produces two crops annually—corn in the spring and wheat in the autumn. Wild game in abundance could be procured in the immediate vicinity."

Of the valley of Sonoita, also, Mr. Browne wrote that it "abounds in very promising gold and silver ledges. Some of the finest farming land in the territory lies along the borders of this stream. * * I have been told that the wheat and corn crops were absolutely wonderful."

In striking proof of this fertility may be adduced the following letter from ex-governor Safford, which with the accompanying engraving of the ear of corn it refers too, speaks for itself: (This ear of corn was grown upon the present town site of Calabasas.)

"EXECUTIVE OFFICE,
Territory of Arizona, Tucson, April 21, 1877.

To COL. C. P. SYKES,

DEAR SIR :—Learning that you are interested in the Calabasas ranch, and about leaving for San Francisco, I desire to present to you an ear of corn that was raised by George Allison on said ranch, without irrigation. I took the ear from a pile of corn where he was harvesting, without any effort to select.

Very Respectfully,

A. P. K. SAFFORD."

Evidence can be added almost to surfeit of the fertility of these valleys, and of the beauty of the landscape, with all its bold and striking adjuncts. From Mr. Bartlett's "Personal Narrative," the following gives a description of the Valley of the Santa Cruz, as seen from the Santa Rita, when crossing them from the east, as is shown in the illustration found elsewhere:

"A few miles brought us to a *puerta*, or gate, in the mountains; passing which, we emerged to a very broad and open plain of remarkable beauty. From the elevation where we first saw this valley, the prospect was exceedingly picturesque. Around us grew the maguey, the yucca, and various kinds of *cacti*, together with small oaks; while beneath us, the valley spread out from six to eight miles in width and some twelve or fifteen in length. Unlike the desolate and barren plains between the mountain ridges, which we had crossed between the Rio Grande and the San Pedro, this valley was covered with the most luxuriant herbage, and thickly studded with live oaks; not like a forest, but rather like a cultivated park."

The author of the *Hand Book to Arizona* has devoted one of his most attractive chapters to the Santa Cruz Valley, the Sonoita, and the Sierra Santa Rita, which form the principal topographical and striking features in the landscape. He says of the superb landscape on which a traveler gazes as he looks up the Santa Cruz, that :—

"From Tubac, the view is a striking one; grandly picturesque, and though rugged yet bold; and having, from the abundance of trees, and the regular outlines presented, elements of exquisite beauty to gratify the eye and appeal to the imagination. From the outpost mount the jutting spur trends easterly, rising boldly into the three great peaks, which mark their range with a more striking grandeur than any other south of the San Francisco Mountain.



*Ear of Corn grown on Calabasas Rancho in 1876, without irrigation.
12 inches long, 8 inches in circumference and 1010 kernels.*

“The Valley of the Santa Cruz at Tubac is at least 3,000 feet above sea level, while

THE ATASCOSA RANGE,

To the west, that—brown, bald and bare—looks down upon the old and dilapidated town, and the lovely valley in which, like some huge daub on a fair picture, it sets—a very rugged specimen of an Arizona range—has an altitude of about 6,000 feet. The Santa Rita rises, not precipitously, like the western wall of the valley, but with a bold, grand, regular swell, until the serrated-ridge attains an altitude of 8,000 feet. The elevations are only approximate, never having been accurately ascertained. Tubac sets at one end of what may be termed a semi-amphitheatre of valley and mountain—the Sierra Atascosa ranging for some twenty miles almost due north and south, until near Calabasas it trends slightly to the east, while the Santa Rita sweeps boldly back in a south-easterly line, from the point where the jutting spur, with its conspicuous advanced peak, impinges just above Tubac, on the Santa Cruz Valley. Near the Sonoita is a small range, the San Cayetano, which flanks the Santa Rita's southern wing, and somewhat narrows the valley. Beyond is the Potrero, through which the Santa Cruz flows northward. Back from Tubac, direct as an eagle flies, the eye of the observant traveler will rest upon Mount Wrightson, or ‘Old Baldy,’ as it has been called by the Arizonian. This distinct and strongly defined peak, covered with the brown grasses of the region almost to its bold summit, towers over the valley at an altitude of 10,500 feet above sea level. Its general direction is north-west and south-east. To the north and west is a bold but lesser cone, which it is proposed to call Hopkins' Peak, in honor of Gilbert Hopkins, a mining engineer, slain within the shadows of these mountains by the murderous Apaches. To the east and south of Mount Wrightson, rises another and smaller peak, which has been called Grosvenor, in honor of another bold pioneer, who, in 1861, was slain near the old Hacienda del Santa Rita.

* * * Professor Raphael Pumpelly (now of Harvard College), who was then engineer of the works and mines, gives a spirited account of what life in Southern Arizona, and with the Apaches on the war-path was at the time, in his valuable work, *Across America and Asia*, which should be read by all who desire the testimony of an accomplished *savant* and mineralogist as to the vast mineral wealth embedded in this range. Bold as are the sides and

summits of this range, cut as it is by deep gorges and cañons, whose depths make sombre shadows in massively marked purple hues as the sunset falls, there is nothing gloomy or even wild in

THE GREAT FREE SWEEP OF LANDSCAPE

Unrolled before one at Tubac, or, better still, at the ruins of the Tumacacori Mission, three miles below. The Santa Cruz flows very near the Sierra Atascosa, at whose base this evidence of Jesuit endeavor and sacrifice is seen—a strange spectacle, indeed, in so wild a land. Looking eastwardly, the eye takes in, for some miles, a bold reach of rising mesa, whose rugged lines are made picturesque by the abundant oaks and mesquites, and are softened by the greyish-brown gramma grass, which is here so abundant. During the rainy season, the Santa Rita is verdant to the summit of the ridge, and the scenery is altogether striking and beautiful. The narrow valley, at this point about two miles wide, has an abundant fringe of ash, mesquite and cottonwood trees, the latter being of the largest size. There is a sufficiency of water for all purposes, and with careful engineering, irrigation will always find ample supply,”

“Of the general appearance of the mountains that border the Santa Cruz is not,” says Col. Hinton, “unlike the Colorado Park system, except that one misses the towering snowy ranges. Nature has nowhere in the North American Cordilleras brought together as many attractions for the hardy pioneer, explorer, miner and *savant*. Looking east at the range from Calabasas, the observer would take in the gorge in which the Toltec intervalle, with its busy camp, is enclosed. Mount Wrightson is here, as elsewhere, the great feature of the superb landscape.

“Coming from the direction of

THE SAN PEDRO

To the east and south, through the cienaga, a wide, beautiful view opens before the traveler. For miles, south, east and west, the magnificent rolling plain is outspread. Every foot of the surface is covered with grass. Clumps of Emory's oak are found growing among the foot-hills. They are just dense enough to afford a shade and yet do not interfere with the growth of the grass. There is no undergrowth of bushes, so that the scene fairly bears comparison with a park. Streams with water, warm but pure, from the mountain, flow down almost every ravine. Springs are abundant, and furnish a large volume of water. Higher up on the mountain side



MOUNT WRIGHTSON
From Calabaza, Santa Cruz Valley.

LITH. BRITTON, RYAN CO. S.F.

pinus and scrub oaks grow abundantly. Tucson and the country about is supplied with lumber from this region. This is the character of the country from the cienega south to the Santa Rita, past Camp Crittenden, which is now abandoned. The valley of the Sonoita proper begins at this old post, and extends therefrom south and west. In fertility of soil it is unsurpassed. The corn grown there would be unequalled on the Missouri bottom lands, and will average ten feet in height, being well eared also. The sunflower (indicator of fertility) grows to an enormous size. All the vegetables are produced in abundance. The river rises and sinks several times within twelve miles south of Camp Crittenden, but there would be no engineering difficulty in preventing this by the construction of a new channel. The cost would not be large. There is a good supply of timber also—ash, walnut and other hard woods being available. The hills are covered by a growth of dwarf oaks, enough for years to come. It is worthy of note at this point that

THE VALLEYS OF THE SONOITA,

Babocomori and of the Santa Cruz give two luxuriant crops annually. Barley and wheat are sown in November and harvested in May, and corn may be planted in June and gathered in October. This sort of cultivation has been done for generations past on the same land, and without returning aught to the soil by the Mexican and Indian rancheros. The portulacca and chenopodium, which grow on the lower grounds, have been resorted to as anti-scorbutics when other food of proper character could not be obtained. The giant cacti almost disappear on the grassy plains and in the valleys east of the Santa Rita, but grow more abundantly on the southern slopes of the Catalina, to the north, than in any other portion of the region.

“The vicinity of the Santa Rita is also full of interest to the naturalist. Valuable additions to science have been made there by members of different U. S. exploring expeditions. Among the rare animals is the dwarf deer, no specimens of which have been found in the United States, except in this vicinity and that of the region south of Mount Graham. They are very handsome and attractive, and not especially shy. In the neighboring State of Sonora, also, they may be found, but except in some portions of Northern India, none are known to exist elsewhere. The variety of birds is quite large, some being peculiar to the region. The larger degree of moisture has its effect in the variety of coloring in both birds and plants. Among the

feathered fauna are several varieties of humming birds, and a number of finches. The ground squirrels are numerous. Black antelope are also seen. Wild horses are still not uncommon on the cienaga, and in the grassy intervalles of the Babacomori. The long-eared owl is also peculiar to this section, and another member of this family has the curious habit of going abroad only in the early morning, and of associating in groups. Grouse of a dusky hue are found on the southern ridge of the mountain range. Eagles, "soaring high on pinions wide," are not uncommon. A rare specimen of the falcon has been seen, and the American vulture is a denizen of these valleys.

DR. ROTHROCK,

of the Wheeler Exploring Expeditions, in the report for 1875, who traversed Eastern Arizona during that year, from Fort Wingate, New Mexico, to the Santa Rita mountains, speaking of the climatic conditions, writes: "Sun-stroke is almost, if not entirely, unknown." The excessive heat indisposes to active exertion, but, adds the Doctor, "this feeling is not akin to exhaustion, and it is common to all tropical and sub-tropical regions alike." The Sonoita Valley is regarded by him as liable to malaria, which however, he adds, would be greatly overcome by "drainage, and the removal of the exuberant living and decaying vegetation" which is now so marked a feature of the place. He recommends a judicious use of quinine, combined with iron, which will often prevent and usually cure. "There is," he adds, "in reality no obstacle to settlement," these diseases "being in fact," those "with which we are most familiar east of the Mississippi River." Dr. Rothrock's general conclusions, though summarizing his observations of a wider area than the one under consideration, apply with great force to that section, and are worthy of re-production at this point:

- "First, that the soil, particularly that resulting from decomposition of the volcanic and sedimentary rocks, possesses the elements requisite for vegetable growth, and will produce crops when water sufficient for irrigating purposes can be had; second, that almost all points accessible to water enough for herds can be utilized as grazing ground; third, that the forests, though localized, contain timber enough for the wants of these regions for many years; fourth, that large areas, now abandoned for want of water, can be cultivated by a system of tanks which, during times of plenty, shall store the surplus water for future use during the critical growing times of the crops; fifth, that under the conjoined influence of agriculture and forest culture,

the excessive waste of water in surface drainage, and in rapid evaporation, will be lessened, thus procuring from the same rainfall more lasting benefit; sixth, that the prevailing diseases are of less than usual fatality, and can, in many cases, be absolutely prevented or readily cured, and that these diseases will diminish in frequency and severity as the country is brought under cultivation.

“The immigrant must not anticipate seeing an immense stretch of country, everywhere alternating in beauty, between greenswards, heavy forests, and abundance of water, like the familiar spots of the east. He must expect at present to find sterility and aridity impressing their hard lines on every feature of the landscape; but he must also remember that Utah, so large a portion of which is now covered with fertile farms, with vineyards and orchards laden with fruit, was only a few years ago almost as most unpromising as Arizona now is; that it is still within the memory of man that prophets of ill-omen predicted that California, now one of the granaries of the Union, could never furnish flour enough for her own use. We may fairly expect, under the demands of our increasing population, that these waste places will be redeemed, and made tributary to our civilization. Labor, here as elsewhere, will bring its reward; but acres of waving, maturing crops will not come unearned.”

A VIVID PICTURE OF AMERICA'S ITALY,

“Besides the material results, the strangeness of forms, and the marvelous atmospheric effects of the climate, holds the senses of all whose imagination is alive to natural beauty. Among the most attractive results of the rarefied atmosphere, the deep, clear sky and the rich, strange colors which are seen and felt on every hand, is that witnessed at midnight; it will not soon be forgotten, even by the most unimpressive and matter-of-fact of observers. The nights grow cool, no matter how heated the day has been; and, sleeping out of doors, the unaccustomed traveler will seek fresh covering in the high noon of night. He will indeed be very dull and very tired if he turns to sleep at once. Above, the deep arch glows, intensely blue and clear, as deep and azure-hued as the fairest Italian skies. The stars look marvelously large and bright, and present a far more countless host, it would seem, than is observed in other latitudes. Lying on the rude earth and looking up to the wild dome above, it appears as if the glittering planets were coming down to crush and destroy. The feeling evoked is one of awe, intense and hushed. The deep interstices grow deeper

and grander as the eyes are strained in solemn wonder. There is above the horizon edge a warm, gray tint, plainly fretted where it fades out and is absorbed in the intense azure above. The whole horizon is aglow with a rich hue of faint rose, shooting up "libidinous prongs" (as Walt. Whitman says), and fading and passing, as the early dawn comes apace, into a pale golden tinge. These skies are translucent in depth; wondrously varied in tone; a constant delight to the imagination, and continually playing fantastic tricks with the observer.

NO POET OR ARTIST

Need ask a finer inspiration than the marvellous glory of an early sunrise on the slopes of the Santa Rita, watching the bold brow of Mount Wrightson, as it is unveiled by the rising sun from the gray mists that have gathered around the peak during the night. The great bars of crimson, the brilliant masses of gold, the deep purple hues that rest on the ridges and wrap the abrupt gorges of the range in wondrous beauty, with the rich tints of pale amber and soft aqua-marine out in the dazzling blue of the fading atmosphere—these tend to make a picture that, once seen, will long be remembered, enhanced as it is by the striking features of the physical formation, and the strange aspects of the vegetation that rises all about one. Gray grass, weird-looking cacti, brown mountain sides, rocks painted in dazzling colors by the erosion of wind and rain; a broad stretch of landscape; strange-shaped peaks, all combine with the spur to adventure which follows the presence of unworked mineral wealth, to make this region one of the most attractive within the borders of the Union."

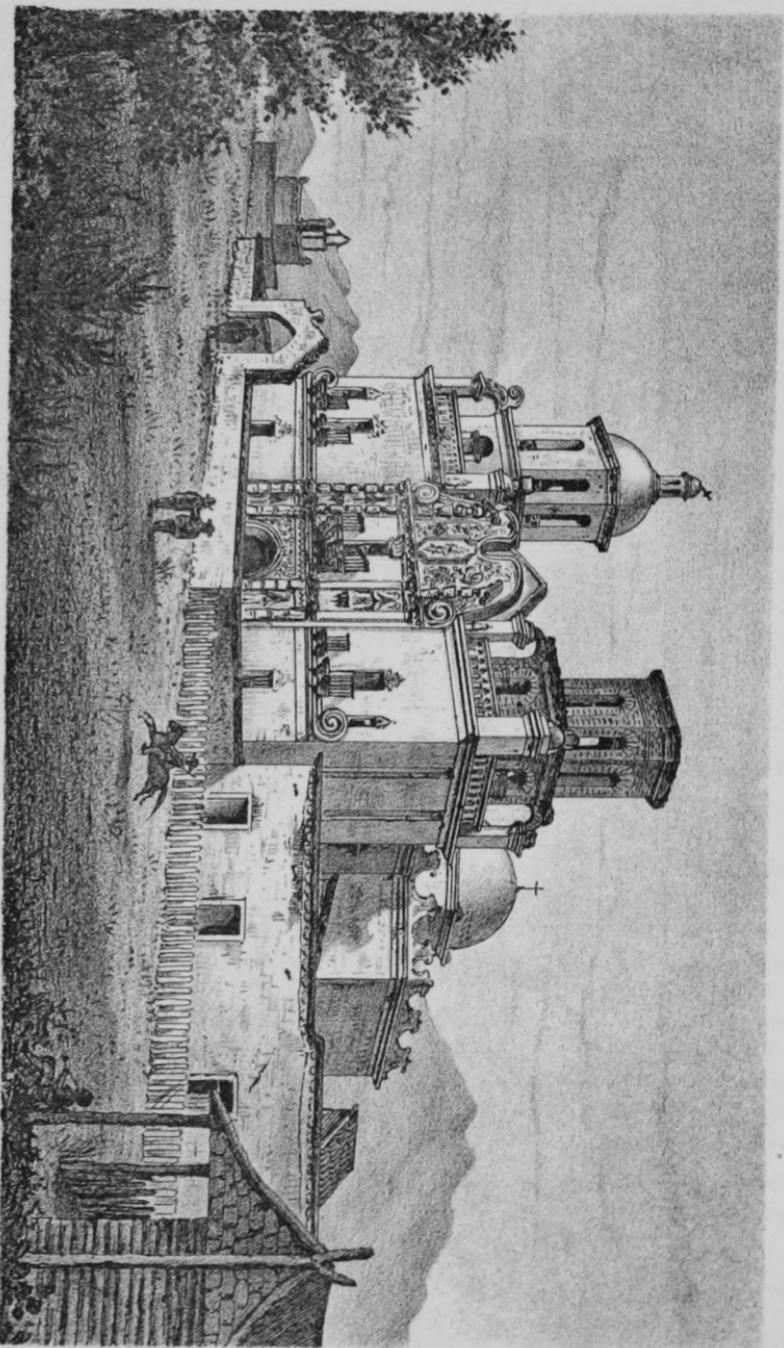
The coolness of the nights is due to the rapid radiation of solar heat absorbed by earth during day. It is always rapid when air and sky are clear, hence frost on starry nights, and none when cloudy.

THE PAPAGO INDIANS,

A branch of the Pima nation, whose principal home for centuries past has been and still is on the Gila River, about 100 miles north-west of Tucson, and near the thriving town of Florence, have long lived about the famous structure known as the Mission Church of San Xavier del Bac, a fine view of which is given, drawn from photographs recently taken by Mr. Conkling.

SAN XAVIER CHURCH

is situated about eleven miles north-north-east of the San Xavier



SAN XAVIER DEL BAC

lode, on which are located all the mines of this company, but that known as the Buena Vista, of which mention will be made hereafter.

A visit to the Mission Church would repay a long journey, for it possesses architectural merits, as well as a striking charm from its age and singular loneliness of situation, standing as it does a bold and solitary feature in a broad landscape of wild and almost weird beauty of clear sky, broad plain and sweeping mountain ranges. Sylvester Mowry wrote in his interesting pamphlet on Arizona that "incredible as it may seem, the Church of San Xavier, with its elaborate facade, its dome and towers, would to-day be an ornament to the architecture of New York." It occupies the site of a rude structure, erected in 1860. The present one remains unfinished to this day, though erected in 1768, and completed, as now seen, thirty years later. In all probability it was left so in order to avoid paying the impost or tax the Roman church levies on all finished structures. It is still used for religious services, and its interior is lavishly decorated. The existence of this structure and the presence of the Papago Indians, for whom it was constructed and with whom it remains connected, is an element of great commercial value for all interests in the region, and to all who may become investors therein.

THE PAPAGO INDIANS

Afford an excellent class of labor, being noted as an industrious, chaste and temperate people. Their reservation embraces 70,400 acres; they number 5,800 souls, about one-half of whom are permanently settled. They raise considerable grain, have large herds of horses, mules and cattle, are always ready to labor, and are very friendly to American influences.

J. Ross Browne gives an account of these people, from which an extract is made:

"As far back as our knowledge of the Papagoes extends, they have been a peaceable, industrious, and friendly race. They live here, as they lived two centuries ago, by cultivating the low grounds in the vicinity, which they make wonderfully productive by a system of irrigation; wheat, corn, pumpkins, and pomegranates are the principle articles of subsistence raised by these Indians; and they enjoy an abundance of everything necessary to health and comfort."—Chap. XIII, pp. 140-1. With the Mexican population they will afford an abundance of labor for some time to come. The scale of wages now paid range as follows: miners

(Americans) get from \$2 to \$3 per day ; Mexicans and Indians, from 75c. to \$1.50. Some miners pay by the month ; \$20 to \$30, with rations, such as sixty pounds of Sonora flour, eight of beans (mesquit), and four of salt. Blacksmiths and other mechanics will get from \$3.50 to \$5.00 per day. Sonora affords an abundance of laborers of all kinds.

THE TOWN OF TUBAC

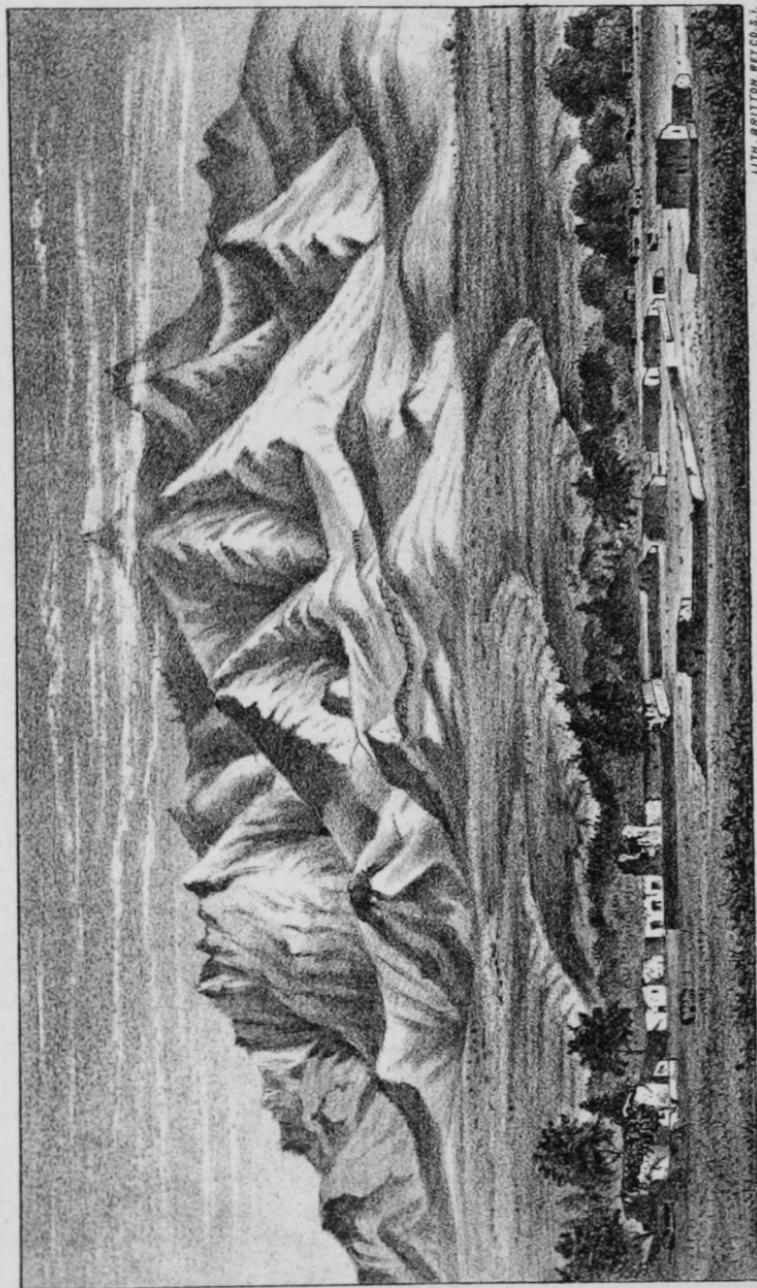
was once a Spanish Presidio and Mission of considerable importance. Its adobe buildings, nearly all in ruins, and containing but a few inhabitants, attached thereto by the increasing mining activity now seen in the Santa Rita and neighboring sierras, form a picturesque adjunct to the striking landscape in which it is situated. The Mission of San Gertrude, the church walls of which may still be seen here, was located in 1751. The following most interesting narrative, found in the old archives of Tucson, about twenty-five years since, and here translated from the Spanish, is in proof of the trials to which, by the

MERCILESS INROADS OF THE APACHES

the settlers of that remote period were subjected. It is strange to read this pitiful appeal, and then to carry the imagination across the wild wilderness to the eastern verge of a great continent, where a nascent nationality was engaged in the severest and harshest scenes of its earliest struggle. But to return to the Spanish petition :

SAN AUGUSTIN DE TUCSON, November 24, 1777.

SEÑOR CAPITAN DON PEDRO ALLANDEY SAVEDRA.—Respected Capitan :—In virtue of your order, dated the 20th of the current month, to the effect that I and two citizens of the most eminence, well known in the country and reliable, should appear in your presence to give you information concerning this locality as to watering places, lands for corn-fields, pastures for horses, and also as to points of ingress and egress of the inimical Apaches, and where they make their abodes, I, Don Manuel Barrague and Antonio Romero and Francisco Castro (who are the two individuals who possess the requisites which you demanded), most respectfully obey, and affirm that the town of Tubac is situated between two mountains, which are distant from each other six leagues. In the valley there is much land, fertile and suitable for corn-fields. There is sufficient water for wheat growing, but scarcely enough each year for corn ; but if that which is at Tumacacori be distributed one week to the Indian



TUBAC & THE SANTA RITA MTS
from the S. E. side.

LITH. BRITTON, DET. CO. S. I.

laborers and another for Tubac, it will sufficiently benefit the said laborers, and there will be an abundance of water ; in this manner was it disposed of by our former Capitan, Don Juan Bapt. Angua, and recently this same disposition has been sanctioned by your honor. There is much pasture, with an abundance of sustenance for horses and cattle as well on the hills and dales as on the mountainless plains. In the same valley there is a great deal of cotton-wood and willow, and in the Santa Rita mountain there is an abundance of

EXCELLENT PINE OF EASY ACCESS,

six leagues distant. Of provisions alone there is raised every year by the inhabitants six hundred or more fanegas of wheat and corn, not one-third part of the land being occupied. There are many mines of very rich metals to the west, in the vicinity of Aribac, at a distance of seven leagues ; there are three, particularly, in the aforesaid vicinity, one of which yields, according to rule (de sopotable ley), a silver mark for one arroba (twenty-five pounds) of ore, the other yields six marks from a load (100 pounds) of ore and the third yields a little less. Three leagues beyond this vicinity, in the valley of Babocomori, there are fine gold placers, examined by Don José de Toro and this whole population. After three visits which these people made with Don José at great risks, and by remaining there over three days each trip, it was verified, and by their having brought away and spent with two traders, who at this time have it, as much as \$200 in gold. In Santa Rita mountain and its environs, which is distant from Tubac four leagues, there have been examined five silver mines, two have been tried with fire and three with quicksilver, with tolerable yield. All of this is notorious among this entire population, and they do not work them because there are Apaches in all these places ; they live and have their pastures there, and pass continually by this mountain to a place a little more than four leagues off, called Hot Springs (Aqua Caliente). Daily experiencing more violence from the enemy, because he is aware of the few troops that we possess, we have desired

TO BREAK UP OUR HOMES

and sell our effects ; and you being aware of it, we received the order which you were pleased to send us, imposing heavy penalties upon us if we should remove or sell our goods, and we have punctually obeyed it, and now finally, the last month, the Apaches finished with the entire herd of horses and cattle which we had guarded ; and at the

same time with boldness destroyed the fields and carried away as much corn as they were able. Since the fort was removed to Tucson these towns and missions have experienced some casualties, so much so that they have been obliged

TO BURN THE TOWN OF CALABASAS,

a calamity it never before experienced. Also, but a few days ago, the cavalcade which the Apaches brought from the west was grazing for three days in the vicinity, falling every day upon the fields to load with corn and to run away with those whom they found there; and, lastly, their not leaving the neighborhood, we momentarily expect that they may serve us and our families as they served our property, there being nothing else left for them to do. We trust in God that by the numerous petitions of the poor people this fort may be restored to its ancient site, and if necessity requires it, there shall be more troops to protect the herds, by remaining at the several points of ingress and egress, which the enemy have established throughout this entire region, and that they may be continually watching from the hills and adjacent mountains. We humbly beseech you, in the name of the whole community, that you will pity our misfortunes and listen to our petitions, that you repair the continual misfortunes that we have suffered, being in continual expectation of our total destruction.

We live in great confidence, from the knowledge that some of us have of you, that by your exertions and by your conduct, and by that of the military commandant, we shall receive the benefit to which we are entitled, since no one is better known than Senor Savedra, and he knows that we exaggerate nothing, considering the many years we have been under his orders. Your humble and obedient servant,

MANUEL BARAGUE.

In the name of the entire community of Tubac,

FRANCISCO CASTRO,

ANTONIO ROMERO.

The following proof of the importance and character of the region under consideration is translated from a work by Jose Velasquez, published in Mexico in 1850, and will be read with interest:

PRESIDIO OF TUBAC.

"This Presidio is eighteen miles distant from Santa Cruz. The company is denominated "Pimas de Tubac," and numbers about

thirty men. The Pueblo San Jose de Tumacacori and the mission of the same name belonging to it, was very rich in cattle during the reign of the Spanish Government over it, and is one league distant from the Presidio. The topographical position is a low hill of small dimensions, with a very spacious valley of excellent lands, susceptible of producing all kinds of fruit, etc. It possesses fine pasture and water for the raising of cattle.

"The temperature is superior at all seasons of the year, and the water is of the most excellent quality. The number of inhabitants in 1850 was about 400. In this district there is a rancho called "La Calabasas," in which there are very rich gold mines, which are abandoned, also the rancho, for fear of the Apaches.

The river running through it is the Santa Cruz, and the land produces all kinds of grain, etc."

The first mission church of San Xavier was erected in 1690; that now seen nearly a century later; the Mission of San Dominick, at or near Tucson, in 1650. The first Mission Church of St. Joseph Tumacacori was built in 1752, and one whose ruins now exist in 1802. It was destroyed by the Apaches in 1820. Tubac is located on the high road to Sonora, where, diverging west and south, roads to such points as Sopori, the Baboquivari, Fresnal in the old Papago country, the Arivaca Valley and the Cerro Colorado mines, necessarily enter the main line of travel. Mr. Bartlett found it occupied by Mexican troops when, in 1850-51, he was engaged in fixing the new boundary line between Mexico and the United States. At that time it was the principal place in the

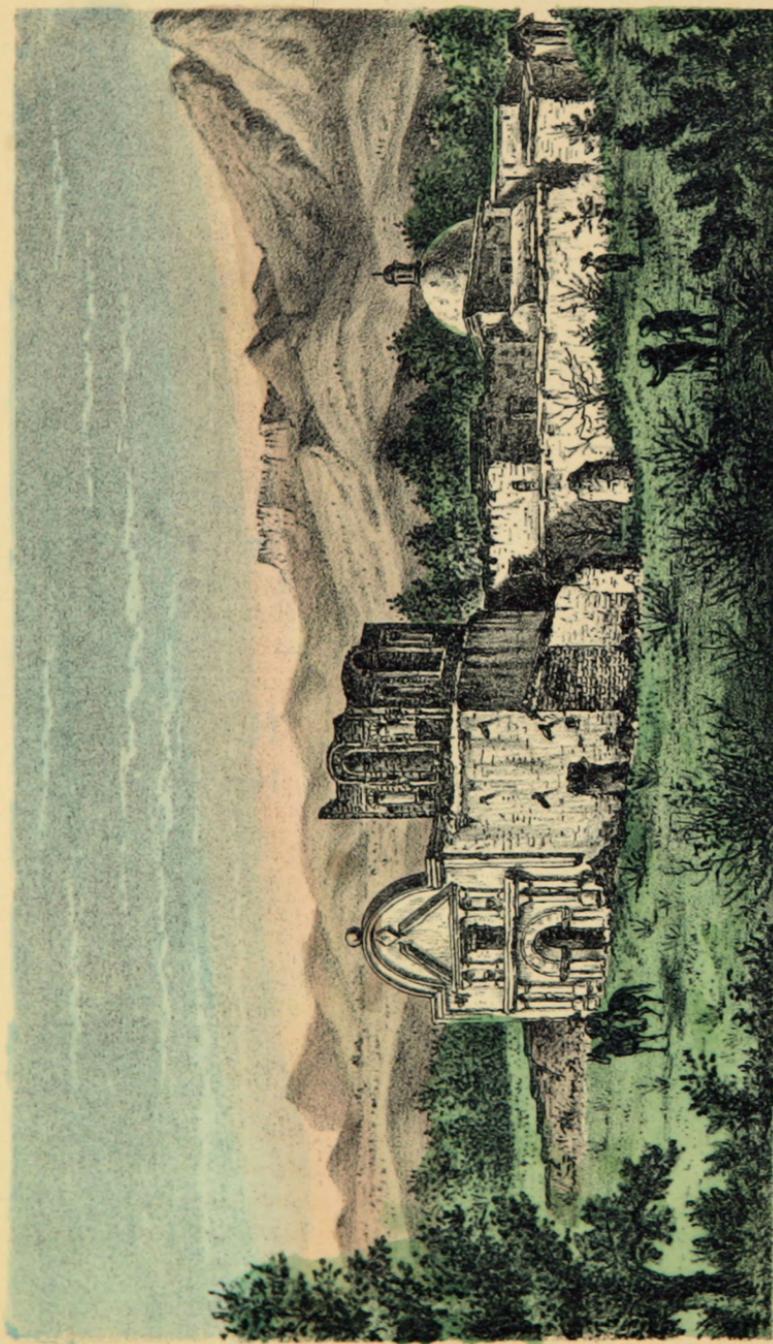
PIMERIA ALTA,

As the territory south of the Gila River, below the 33d' parallel from the line of New Mexico to the Colorado River, was termed. In 1853, Col. Charles D. Poston and Herman Ehrenberg arrived there coming from San Francisco, *via* the Gulf of California and Guaymas, across the northwest portion of Sonora, and through the Papago country. These gentlemen were the first Americans of any position to penetrate this region, except those who were with Bartlett and his expedition. Col. Poston, in a narrative, embodied by Ross Browne in his attractive book, *The Apache Country*, says of this town and locality, under date of 1853:

"Arriving in the valley of the Santa Cruz, we found the old town of Tubac, abandoned by its Mexican garrison, and the population,

which had been dependent upon them for protection against the Apache Indians, the most fierce and barbarous tribe of which we have any account. As the houses in Tubac were in a good state of preservation, we occupied them for headquarters during the ensuing winter, and passed the time in exploring the surrounding country for silver mines. The winter season here proved very mild, and our animals were subsisted upon the nutritious grasses which abounded upon the hill sides. * * The Valley of the Santa Cruz is a very rich body of land, and with irrigation produces two crops annually—corn in the Spring and wheat in the Autumn. Wild game could be procured in abundance in the immediate vicinity, and by Christmas we had such a store of bear meat, deer, antelope, and fat wild turkeys, that no apprehensions of short rations disturbed our enjoyment. * * In the course of a few months several hundred people had gathered around Tubac, and engaged in planting; the mines developed a wonderful richness, and traders from Sonora, New Mexico and California came to supply all our wants with the productions of foreign lands, in exchange for the silver bars which we made 'current with the merchant.'" The same gentleman, in a report made to the Sonora Exploring and Mining Company, published in 1856, says: "The old town of Tubac was formerly occupied by a numerous and thrifty population, engaged in agriculture and mining. It is the very centre of the mining region in our territory, and has probably 150 silver mines within sixteen miles. Many of them were worked by the Spaniards and Mexicans in a primitive manner, but not opened to any extent, because they had not sufficient machinery or mining tools. * * Under the Mexican rule a garrison was kept at Tubac for the protection of the inhabitants, but only of sufficient force to enable them to work their fields; the mines had not been worked for (1855) fifty years."

In the same volume, Mr. Browne thus describes Tubac: "The old Plaza was knee-deep with weeds and grasses. All around were adobe houses, with roofs fallen in and the walls crumbling to ruins. Doors and windows were all gone, having been carried away by the Mexicans three years ago. In 1858-59 and '60, during which the mines were in progress of development, Tubac might well be regarded as the headquarters of civilization in the Territory. The gardens afforded a pleasant place of retreat in summer, with their shady groves of acacias and peach trees; and deep pools in the river, overhung by willows, were cleared out and made into bathing places."



LITH. BRITTON & REED, N. Y.

RUINS OF THE MISSION OF TUMACACORI
Destroyed by Apache Indians.

Mr. Browne added: "The mines are proverbially rich; and rich mines will sooner or later secure the necessary protection for working them." He gives some interesting facts relating to its history. In 1840, according to Velasquez,

THE MEXICANS

had a garrison here of thirty men, the town containing a population of four hundred. In 1853, after it was transferred to the United States, the whole Mexican population retired to Sonora. When the Federal troops abandoned it in 1861, only twenty-five or thirty persons remained. These soon left, after considerable fighting with Apaches and Mexican robbers. In 1875, fresh impetus was given to prospecting by the Howard treaty with Cochise, and by the fact that under an Act of Congress, the mining claims that had been protected during the Indian and southern troubles for their original holders, were liable to lapse if not then re-occupied. The town of Tubac and the Mission of

ST. JOSEPH TUMACACORI,

the ruins of which are shown in the accompanying lithograph, are both embraced by the Spanish grants, known as the Tumacacori and Calabasas.

THE RUINS OF ST. JOSEPH MISSION

Tumacacori, are located on the west side of the Santa Cruz, about a quarter of a mile from the dwelling of Mr. King. There is abundant evidence of long continued cultivation in the vicinity. The first church building was constructed in 1752; and the one whose ruins are shown in the accompanying engraving was built in 1802. It was destroyed by the Apaches in 1820. The mission buildings were of large extent, and their ruins cover a considerable area. The church itself is almost unroofed, the chancel with its dome still remaining in fair preservation, while the nave is open to the sky and the weather. The main structure is about one hundred feet long by forty-five or fifty wide. Its form is that of a plain Greek cross with a basilica. Two towers remain in fair preservation. On the west side an unroofed chapel stands, while on the other the sacristy is quite dilapidated. Professor Thomas Davis states, that when he passed up the Santa Cruz valley in 1840, the church roof was nearly intact, and much of the interior was in good preservation. There were then many fruit trees, pomegranates, peaches, etc., bearing profusely; and the walls that enclosed the home, orchard and garden

were still to be traced ; they are now almost obliterated. The church ruins set square with the compass, the principal front facing the south. At the rear end there is a high wall in good preservation, enclosing a circular mortuary, still perfect. To the west of the church is a large enclosure, the walls of which are readily traced. It is evident that this was the work-yard of the mission, as there are the remains of arrastras, rude smelting vases or furnaces, a few heaps of debris, etc., to show the once active working of ores. On the east ruins can be traced. Part of the front wall, with gateway, still remains. Beyond can be followed the lines of a small orchard and field, once enclosed ; while in front of the church itself are the remains of another enclosure, in the south-west corner of which there are crumbling adobe walls that suggest out-offices, stables, etc. The church and mission buildings proper, appear to have been enclosed and walled in the form of a cross, of which the east and west, especially the first, were the longest, while the north and south wings formed the transverse portion.

The general appearance of the ruins has not materially changed in the last twenty years. The former residences of the priests and the peons' houses are now almost destroyed, but the Campo Seante and the church remain very nearly the same.

No better region for colonizing can be found on our Southern Pacific frontier. Its fertility, salubrity, and charms of scenery and climate are amply proven. Anderson, in his *Silver Country*, says of this whole region :

“Those who understand the agricultural capacity of other portions of the south-west, and who think that gold and silver comprise the sum total of its riches, have only to wait

THE ADVANCE OF RAILWAYS,

and a suitable development of Old and New Mexico and Arizona for further surprises, and statistical proofs of their delusion. * * * Those keen observers of nature—the civilized native races—selected the table lands of Mexico as their favorite part of North America for founding an empire. They were entirely dependent upon the resources of their own land for the necessities of life, and could we have maintained a civilization celebrated for luxury, unless the agricultural capacities were equal to their requirements, nor would the table lands of New Mexico and Arizona have supported the numerous cities and dense population of their semi-civilized inhabitants,

unless the products of the soil were great." The dry lands produced wheat, and as is well established, the Aztecs cultivated cotton, wool, coffee, sugar, silk, cochineal, all semi-tropical fruits; raised cattle and made wines. The grape of the Messila Valley, New Mexico, and of Taos, is well adapted to wine making. The Santa Cruz is in the same latitude and a little south. A writer in *Lippincott's Magazine* has recently written that this is

"THE SANITARIO OF THE UNION,"

where the atmosphere is more dry than in Colorado, the sky brighter, the nights sufficiently cool for refreshing sleep, and free from damp night air; while the elevations "are such as to suit each case."

As practical evidence of the importance of this valley, letters from competent persons, long resident in the section, are here inserted. The first in order is from the

WELL-KNOWN ENGINEERS AND SURVEYORS, MESSRS. EDWARDS AND
ROSKRUGE.

TUCSON, A. T., April 20, 1877.

COL. C. P. SYKES, Tucson, A. T.—Sir:—Herewith we hand you a map compiled from the latest government surveys, showing the lands covered by the Spanish Land Grants of Tumacacori, Calabasas, and Huababi, situated in Pima County, Territory of Arizona.

These grants embrace about twelve thousand acres of the finest agricultural land in the territory; lying along the Santa Cruz River, the Potrero Creek, and covering the large valley at the mouth of the Sonoita.

We have examined this section (the large valley at the junction of the Sonoita and the Santa Cruz Valley is the valley of the latter, and the lands along the Potrero Creek), and its water supply, and believe that with proper care and management a sufficient quantity of water can be obtained to bring nearly the whole of this section under cultivation. The river bottom and adjoining foot-hills afford an abundant supply of good oak and mesquite timber, while the mountain ranges in the immediate vicinity contain extensive pineries. Some very rich mines of gold, silver and copper are now being worked, and others discovered, only waiting capital to develop them. The whole country is covered with nutritious grasses. Gold has been found in the foot-hills and gulches, but to what extent we cannot state.

This section has an elevation of 3,500 to 4,000 feet, thus escaping the heat of summer, so disagreeable at the mouth of the Colorado River, and at the same time not being subject to the severe snow storms common to a more northern climate.

There are several ranches in different parts of the valley, under a very high state of cultivation, producing two crops a year, among which may be mentioned, wheat, corn, barley, fruits and vegetables of all kinds, which find a ready sale and command high prices at the different towns, mining camps and military posts in the southern portions of the Territory. The Valley of the Santa Cruz above Tubac has one of the most delightful climates in the world, and is capable of sustaining a very large population.

Yours very respectfully,

WM. EDWARDS.

GEO. S. ROSKRUGE.

LETTER FROM EX-GOVERNOR SAFFORD,

Eight years Executive of the Territory, and now a resident of Tucson.

SAN FRANCISCO, August 10, 1878.

COL. C. P. SYKES.—Dear Sir:—In answer to your verbal request for my opinion of the San Xavier mines and the Upper Santa Cruz Valley, Pima County, Arizona, in connection with your contemplated enterprise, I will state that I have several times been at the San Xavier mines, at an early stage of their development, and consider that the immense outcrop for several thousand feet, together with all the indications, are of the most promising kind to warrant the belief in the existence of a very large and permanent body of ore, of an average grade in richness, and easy to work. The mines are admirably situated for cheap and profitable working.

The Santa Cruz Valley is one of the most beautiful and picturesque in the Territory of Arizona, and the valley proper from Tubac to Calabasas will average three-quarters of a mile in width, of very rich, arable land, and is watered by the Santa Cruz, a small stream running through it. A considerable portion of the valley is covered with mesquit timber, and the stream is lined on either side with large cottonwood trees. The land is covered with nutritious grasses, and there are several small farms in the valley, some of which are under a high state of cultivation. Three miles above Tubac the Tumacacori church is located, and was once the center of an important mission.

On either side of the valley the lands rise from 50 to 75 feet, and are composed of rolling hills, covered with a variety of nutritious grasses, mesquite and oak trees, and from twelve to fifteen miles distant in the Santa Rita mountains there are plenty of pines suitable for lumber, from which a steam saw-mill now in operation is supplied. I consider very few countries superior to this section for grazing, fruit raising, mining and agricultural purposes.

The climate is excellent ; for three months during the Summer the warmth is about the same as at Sacramento, Cal. ; the balance of the year is delightful ; occasionally a little frost, but never snow.

The location you have selected for the town-site of Calabasas is central for all the mining and agricultural districts of the Upper Santa Cruz region, embracing the Santa Rita, Patagonia, Sierra Pajarite, and Atascosa mountains, and is one of the most beautiful and picturesque locations of the valley or Southern Arizona, and situated as it is upon the great natural highway from Tucson to Sonora, and being sixty-five miles south of the former place, is admirably located as a business rival, seeking the trade of Sonora and the rich mining districts of which it is the center.

You are justified in holding your property in high esteem for the legitimate investment of capital, and properly managed cannot fail to prove a profitable investment.

Respectfully, yours,

A. P. K. SAFFORD.

MR. D. H. BENTLEY

Testifies as follows :

COL. C. P. SYKES.—Dear Sir :—I visited the southern portion of this Territory early in the present month, and during my trip passed down the Sonoita valley to its junction with the Santa Cruz valley ; up the latter to Kitchen's ranch, then down the Santa Cruz valley to Tubac and Tucson, I consider this valley, from Tubac up to Kitchen's ranch, and especially the large valley lying at the junction of the Sonoita and the Santa Cruz, to be the best land in Arizona. My conclusions are based upon talks with several farmers who are living in the valley ; and upon personal observations ; I saw fine barley and wheat fields, and nearly all the choice vegetables, such as cabbages, onions, sweet potatoes, etc. Many old fruit trees are still bearing fruit, and the peaches are well advanced. These trees, it is supposed, were set out by the Jesuit Fathers, but owing to Indian depredations, none have been planted of late years. There is plenty of water to

irrigate all the arable land, and the best wooded section, also, I have seen in the Territory. This tract of land must be very valuable to any party desirous of forming a colony, as it contains fine farming, grazing and mineral lands, and the climate is not to be excelled.

Yours very truly,

Tucson, A. T., April 16, 1877.

D. H. BENTLEY.

THE MOST PROMINENT MERCHANTS

and other citizens of Tucson, unite in the following card :

To COL. C. P. SYKES, San Francisco, Cal. :—We, the undersigned citizens of Tucson, are well acquainted and familiar with the Valley of the Santa Cruz above Tubac, and consider that the lands of the valley are quite as good, if not more than equal in richness, with that of any other lands in this Territory, and that with a proper system of irrigation, there is plenty of water for the uses of all the arable lands of the valley.

The lands are susceptible of the highest state of cultivation, and will produce all kinds of grain, vegetables and fruits produced in any other portion of the Territory, or in the State of California. There is now in the valley some of the best cultivated farms in the county. There is plenty of wood for practical purposes. The *mesa* is covered with nutritious grasses, and numerous veins of gold and silver have been discovered in the mountains and foothills bordering on the valley. We consider this section well adapted for a colony of people that wish to follow either, or combine the pursuits of agriculture, stock raising, or mining.

P. R. TULLY,

S. R. DELONG,

ESTEYAN OCHOA,

J. SAM'L HUGHES,

JAS. H. TOOLE,

F. H. GOODWIN,

J. H. ARCHIBALD,

LIONEL M. JACOBS,

B. M. JACOBS,

C. H. MEYER,

W. W. WILLIAMS,

JOHN V. ALLEN,

C. H. LORD,

U. S. Depository.

Tucson, A. T., April 16, 1877.

To these statements of well-known residents, the following from Col. Hinton, of the *San Francisco Evening Post*, whose graphic pen has made Arizona widely known to the country, and from whose valuable work interesting extracts have already been made, will be of

value, summing up as it does, the practical observations of one trained to see, and thoroughly competent to note and state.

COL. R. J. HINTON

writes as follows :

SAN FRANCISCO, Cal., August 1, 1878.

COL. C. P. SYKES, San Francisco.—My Dear Sir :

In accordance with your wish, I give you such fresh impressions as my knowledge of Southern Arizona enables me to offer. The Valley of the Santa Cruz south of Tucson, which I have thoroughly examined, is admirably adapted both to cultivation and grazing. It would sustain a considerable population, and that portion of it which lies from Tubac to Calabasas is especially well suited for the location of a large colony. Moderate use and good engineering would supply all the water needed for purposes of irrigation. My impression is very decided, that under cultivation the whole valley would need but little from artificial sources. Water must of necessity be found very near the surface. Wells, comparatively shallow in depth, would not be costly. Windmills, as in California, would come into use for raising and distributing it. With a liberal policy, a colony composed of persons of moderate means would find home-making a reasonable task. The climate is healthy and pleasant. The scenery is picturesque, and even grand. Cloudless skies lend a charm that is indescribable. All the cereals and roots of the temperate zone, and those of the semi-tropics will grow abundantly. None of the fruits of either latitudes can fail to flourish. There are peculiar products, too, associated with the cacti, the mesquite and other plants and trees belonging to this region, which will ere long be recognized as valuable articles of commerce. Among other things, there is very little doubt but that the mesquit furnishes gum arabic equal to that of commerce. It has been used for many years by the Mexicans and Indians for all the uses to which the commercial drug is applied. Many valuable medicinal plants are also known to be found in this region. The *mesa* and even the mountain sides to their very summits are clothed at all seasons with nutritious grasses. Cattle can always feed and fatten here, and shelter would never be required. On the east side of the valley, the western slopes of the Sierras are well supplied with the low-branched emory oak. Beyond and on the eastern slopes up to the summit there is an

abundance of yellow pine. I know no portion of our frontier better adapted for homes and farms than the Upper Santa Cruz Valley.

Besides this, it is the natural highway to Mexico. There is a large traffic, and has been for two generations past, interrupted only by Apache warfare, now terminated, I believe, forever. Tucson has been in the main built upon the Sonora trade. When I was first there, some fifteen months since, I gathered statistics, showing an annual business of at least \$5,000,000. Two-thirds of that was done with Sonora. Tucson cannot, in the nature of things, retain this Mexican trade, though it will, without doubt, more than replace it by the business which must come from mining, so long arrested and now rapidly developing, as well as by the speedy growth of a population sure to be largely dependent upon it as a railroad and commercial center. The Sonora trade will, however, concentrate at some point in the Upper Santa Cruz. Tubac cannot, it seems to me, be resuscitated. Calabasas, the town site you have selected, is in every way suitable for an important local and commercial station. Admirably situated on a slightly elevated plateau or bench formed by the junction of the Santa Cruz and Sonoita rivers, it commands both valleys, and must obtain the trade of the region. Within a few miles of the Sonora line, the Mexican trade that now passes to Tucson must, it seems, if stores and warehouses are provided, halt and permanently remain at Calabasas.

There is another point of great importance for the future of such an enterprise as your project—Calabasas is the best point in the whole region for custom mills, furnaces and reduction works. It must draw a great business from the Atacosa, Arizona, Coyeante, Oro Blanco, Patagonia and Santa Rita mountains. It is easy of access from all these ranges; wonderfully rich in metalliferous deposits. Besides Northern Sonora is unsupplied with aught but the rudest processes in the rudest of patio and arasta methods and constructions. The works, which it is more than probable will at an early day be constructed by the several syndicates who have control of large interests at the old Cerro Colorado mines, in the Arivac Valley and District, and in the Aztec, Tucson and Tyndall Districts of the Santa Rita and Coyeanto Sierras, are sure to be fully occupied with their own ores. Custom works can be sure to find all they can do. Calabasas is the most accessible source for their construction. There is no better place in this region for trade and milling. Another fact must be considered—the Santa Cruz Valley

is sure to be traversed at no distant day by the Guaymas and Tucson Railroad, and in my judgment the Southern Pacific will seek that route for its possible trunk line to the City of Mexico. Its eastern line will pass up the Sonoita Valley, bending east at the very point where you have located Calabasas. Beyond, it will emerge into the cienaga or grassy plain, which extends to the San Pedro, and then find the old route laid out by Col. Phillip St. George Cooke, and followed by other old army officers, through the Mule Pass of the Dragoon Mountains, east to and through the Chiricahuas on to Texas. I am sure that energetically managed, and judiciously directed, your enterprise must prove a large success, and so wishing your anticipations may all be met favorably.

I remain yours truly,

RICHARD J. HINTON,
Editor of Hand-Book to Arizona.

REDUCTION WORKS.

SAN FRANCISCO, Cal., July 31, 1878.

COL. C. P. SYKES, San Francisco, Cal.—Dear Sir:

Your favor of the 27th inst. received. In reply to your inquiry as to what my opinion is relative to the establishment of a complete system of reduction works in the Santa Cruz Valley, at a point near Calabasas, in Southern Arizona, for the manipulating the ores produced in the surrounding districts, I would state that the location is a very favorable one. The erection of such works at Calabasas, with all its requirements, for the treatment of the different characters of ore produced, would be of invaluable benefit to those districts, and if properly managed ought to prove remunerative, much more so than if erected at Tucson, the former being more central and nearer the many districts, as a glance at the map will show you.

Yours respectfully,

LEWIS WILLIAMS.

Add to all these advantages

THE ENORMOUS MINERAL WEALTH

which awaits the brawny blow of labor, the skilled direction of fine nerved enterprise, and the sharp, keen brain of vigorous capital. The historical proofs of the mineralogical value of the region in which the property now being presented is located are beyond question. From old Jesuit records relating to the "Apostolic Labors"

of their missionaries, and other Spanish works, from which, translated and quoted in the *Hand-Book to Arizona*, the following extracts are given :

“ In the year 1769 a region of virgin silver was discovered on the frontier of the Apaches, a tribe exceedingly valiant and warlike, at the place called Arizona, on a mountain ridge which hath been named by its discoverers Santa Rita. The discovery was unfolded by a Yaqui Indian, who revealed it to a trader of Durango, and the latter made it public ; when news of such surprising wealth attracted a vast multitude to the spot. At a depth of a few varas masses of pure silver were found of a globular form, and of one or two arrobas in weight. Several pieces were taken out weighing upward of twenty arrobas ; and one found by an inferior person attached to

THE GOVERNMENT OF GUADALAJARA

weighed 140 arrobas.* Many persons amassed large sums, whilst others, though diligent and persevering, found little or nothing. For the security of this mass of treasure the commander of the Presidio of Altar sent troops, who escorted the greater bulk of the silver to his headquarters, whereupon this officer seized the treasure as being the property of the Crown. In vain the finders protested against this treatment, and appealed to the audience chamber at Guadalajara ; but for answer the authorities referred the matter to the Court at Madrid. At the end of seven years the king made the decision, which was that the silver pertained to his royal patrimony, and ordered that thenceforth the mines should be worked for his benefit. This decree, together with the incessant attacks of the hostile Indians, so discouraged the treasure hunters that the mines were abandoned, as needs must be until these savages are exterminated.”

Not all the priestly historians write so smoothly of this transaction, which, by the way, is commented on in every work upon Mexican mines since written and published. The reader, who should desire to see how deep in gall a Castilian may dip his pen on the same subject, should peruse a work entitled “ *Los Ochos Españoles*,” or the documents yet existing in the archives of Pimeria Alta, written by Jesuit Fathers, who were despoiled by this act of the King.

“ In 1817, Dionisio Robles, a courageous inhabitant of the town of Rayon, fitted up an expedition of over 200 men, and proceeded to the Santa Ritas to discover these rich spots. They fought their way

* An arroba is a Spanish weight of 25 lbs, of 16 ounces each.

for seventy leagues, found what they believed to be the old workings, but which were only the marks of the first prospectings; and as the quaint old chronicles say that 'although throughout all their seeking they did find virgin silver, more or less, yet were not these large masses of treasure so readily obtained during the eight days of their stay; so that finally, after much loss of life, being daily and nightly beset with the savages, they did turn their steps homeward, being exceedingly harassed all the way; bringing home, indeed, good store of treasure, but yet no single piece of pure silver weighing in excess of four arrobas. Yet,' remarks the chronicler, 'will it again and again be adventured until the savages become extinct, and

THE SUPERIOR RACE POSSESS

the untold wealth imbedded in these mountains of Santa Rita.' These old gold hunters simply shared the fate allotted to all pioneers. But they have cleared the way for the coming man—for the race of to-day. The members of the Robles expedition unanimously agreed that the entire region was wondrously rich in minerals, and that to the east of the scene of their explorations 'the range was filled with veins of gold and silver crossing each other in all directions, and upon this portion of the country did the savages most terribly assail our forces.' The Jesuit Fathers, who built the Mission of Tumacacori, found at last how little real power they had; for when most they believed in their security and strength, after they had amassed unbounded wealth, on one fine day the red man encircled them with fire and knife, and not one Padre escaped to tell the story. So ended the old Mission."

There is other and better evidence, because more authentic and scientific, of the wealth of this region. Humboldt's well-known theory in respect to deposits of silver in Northern Mexico, "that the proportion of silver in the ore would be found to increase as you advance to the north," has without doubt been verified by all subsequent scientists who have looked into the subject or practically examined this region. The result is accounted for geologically by the dip of the veins. The richest portions are nearest the surface, in the latitudes we are considering. The famous

BOLAS DE PLATA

are within the region embraced on our map, and their locality—recently re-discovered—is indicated. The British Charge d'Affaires to Mexico in 1827, H. G. Ward, author of a valuable work on that

country, which is still standard, gives much important information as to the mineral wealth of the "Primeria Alta." He declares that there is great "richness of ores and veins, productive almost at the surface." Judge Wilson, also, in his work on Mexico, published in 1855-6, writes as follows: "In the part of Muchachos, situated in the Sierra Madre, between Tucson and Tubac, in those of Papaguercia, are found great masses of virgin iron and abundant veins of the same metal." He speaks also of copper and lead, as well as the precious metals. From a valuable mineralogical table in the *Hand-Book to Arizona*, the geologists, explorers and prospectors have reported, it appears, that there have been found native copper; sulphides in the form of pyrites, Sphalerite (zinc-blende), Galenite, Chalcocite (copper glance), Bovolite (blue glance), Argentine (silver glance), Steinbergite (iron and silver), Pyraegerite (ruby silver), Metallic oxides, in the form of Pyrolusite (peroxyd of manganese), Massicot, Minimum, Caprite (red-oxyd of copper), Stetefeldidite (chloride of silver) and Embolite (bromo-chloride of silver.) Carbonates are found at

THE SAN XAVIER LODGE

in the form of Cerusite and Azurite (carbonate of copper), sulphates of copper and iron. Silicates are also found, as agate, jasper, flint, chalcedony and quartz crystals. Silicate, in the form of Talc and Amphibol abound, while the rocks of the region are granite, gneiss, syenite, sandstone and paleozoic limestone. In this region we have passed beyond the range of eruptive rocks; no evidence of volcanic action is anywhere visible. In fact, it would appear from the outer physical aspect and geology combined, as if the mountains that fence in this valley are also the land-marks that indicate the shore-line of

THE ARCHLEAN OCEAN

which once swept over the larger portion of the south-west and west of this Territory. There can be no question whatever as to the richness of the mineral deposits of this whole region. Gold has been found in vein and flood. There are extensive placers in the Finiajas and Santa Rita mountains. Within an area of thirty miles north and south, and not over, as a rule, twelve miles east and west, may be found concentrated what has already been proven to be one of, if not the richest mineral regions in North America. J. Ross Browne, formerly U. S. Commissioner of Mining, offers the following estimate, made in 1871, and based on personal inspection, of the

results likely to attend mining in the Santa Rita range, as compared with those of

THE COMSTOCK.

The calculation is based on the labor of 4,000 men :

330,000 tons of Comstock ore, at \$45 per ton.....	\$14,850,000
Cost of reduction, at \$30 per ton.....	9,900,000
	<hr/>
Net yield, \$15 per ton.....	\$4,950,000
165,000 tons of Santa Rita ore, at \$100 per ton.....	\$16,500,000
Cost of labor and treatment, at \$7.50 per ton.....	1,237,500
	<hr/>
Net yield, \$92.50 per ton.....	\$15,262,500

The difference in cost of reduction is accounted for by reason of the greater facility for obtaining wood, forage, timber and water. In the Salero and other old mines, Mexican traditions put the yield at \$340 to \$680. These remarks are largely applicable to the other mines and districts lying between Tucson and the Mexican line, and embraced by the Santa Cruz Valley system. The major portion of this region can be made tributary to the proposed

CALABASAS REDUCTION WORKS.

A milling town is always a prosperous one, and the speedy erection of such works, which is now insured, will at once tend to make prosperous homes and settled life. The Arivaca District contains a large number of valuable lodes and mines, among them being twenty old silver mines. The veins therein were described in 1859 by Frederick Brunckow, as containing tetrahedrite, the German fahlen and lead ore, yielding from \$80 to \$100 per ton. There is also an abundance of argentiferous galena. The Oro Blanco District must also be tributary in trade and milling to Calabasas. The famous Ostrich gold mine is located herein. The ore assays from \$40 to \$100 in gold, besides a considerable per cent. in silver. The famous Cerro Colorado mines, with others in the district west of Calabasas, must largely help to bring renewed prosperity to the Santa Cruz Valley. Over \$2,000,000 in ore have been taken from the wonderful Heintzelman mine. Silver, copper, glance and gray copper are found here. The average yield is \$120 per ton, while Herman Ehrenberg and General Heintzelman have rated it much higher. To the south of Calabasas are seen

THE PATAGONIA MOUNTAINS,

containing the famous Mowry, Trench, Washington, and other mines. In all these districts there are several hundred miners at work. Capital

is now going in, though slowly. Thousands of claims have been taken, and as many more, equally as valuable, remain to become the prizes of enterprise and industry. With the first steps to the erection of reduction works, a great impetus will be given to prospecting and working. The Calabasas Land and Mining Company fully comprehend the importance of the enterprise. Every exertion is being and will continue to be made. The following description of the land belonging to the Calabasas town site, and the facilities for obtaining water, from the pen of the

COMPANY'S SURVEYOR,

Mr. Edwards, of Tucson, will prove its value :

TUCSON, A. T., May 22, 1878.

To COL. C. P. SYKES.—Dear Sir :—

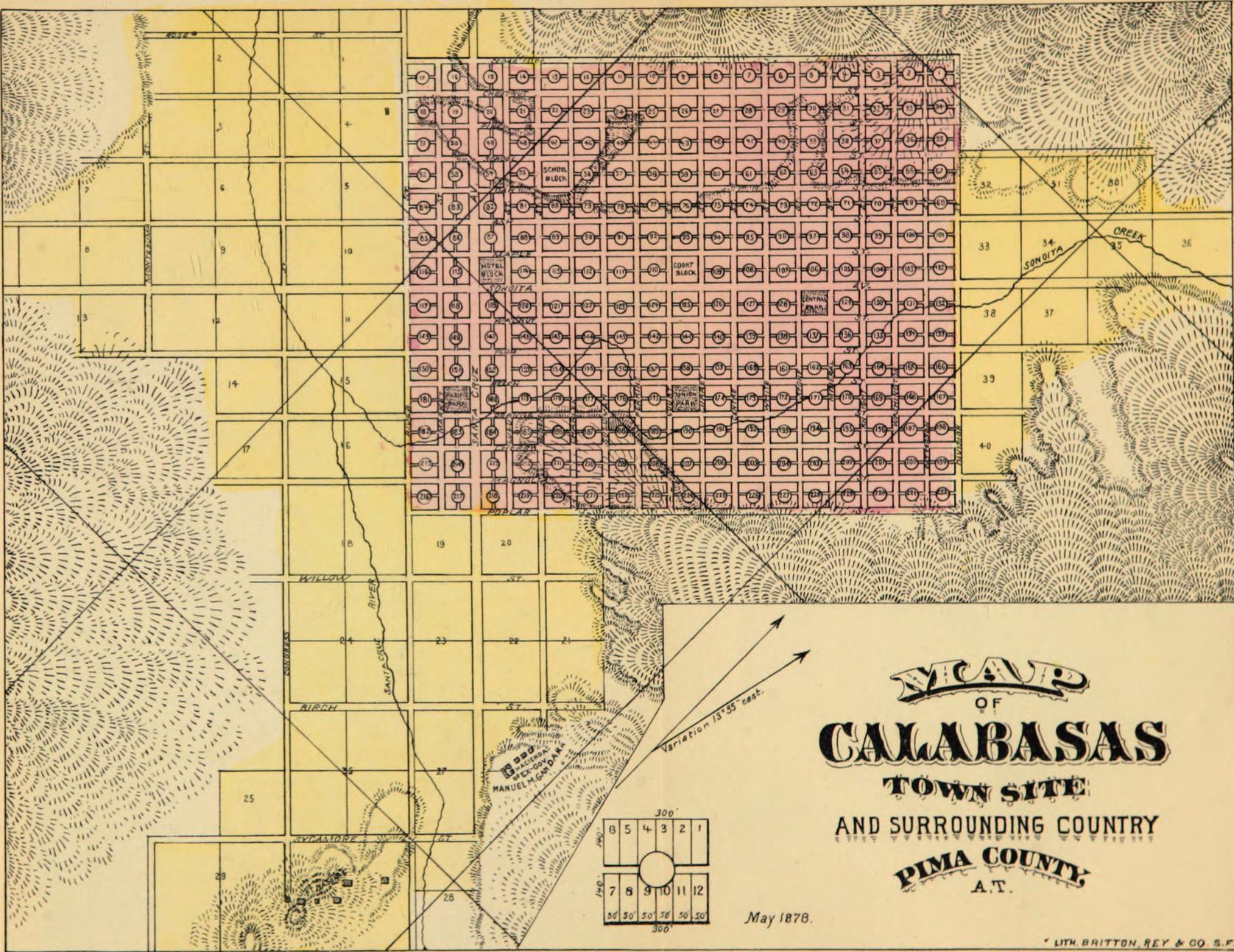
In company with yourself I visited the Calabasas Land Grant, situated in the Santa Cruz Valley, about seventy miles southerly from Tucson, A. T. ; gave the lands a very thorough examination, and afterwards made a topographical survey of that portion lying on the Sonoita Creek, where it joins the Santa Cruz River.

Accompanying this letter, I submit my map with the plan of the proposed town of Calabasas and a system of farming lots adjoining the same, marked thereon.

This section of the grant is perfectly smooth—as indeed is the whole of the valley included in it—with a gentle fall or slope to the northwest, and is all susceptible of cultivation by a proper system of irrigation. Both streams sink in dry seasons above this point, and run for some distance underneath the surface. That there is a large supply of water underground cannot be doubted, there being an abundance in both streams above their point of junction, and indeed it is proved by the fact, that plenty of good water can and has been found in many places in both valleys, by sinking eight or ten feet.

In the Sonoita there is an unfailling supply of water of between 200 and 250 inches, which is largely increased during the rainy season. The Sonoita flows for about twenty-five miles, running for some two miles just before sinking through a rocky cañon, which averages from 60 to 150 feet wide, with perpendicular sides from 20 to 100 feet in height.

By building a dam of masonry across this cañon, about two miles above the Town of Calabasas, a large reservoir would be formed, capable of storing a sufficient amount of water, which, by a proper system of piping, would by itself supply the town.



MAP
 OF
CALABASAS
 TOWN SITE
 AND SURROUNDING COUNTRY
PIMA COUNTY,
 A.T.

May 1878.

LITH. BRITTON, REY & CO. S.F.

The Santa Cruz River sinks about two and a half miles above the town and runs for some distance before sinking through a comparatively narrow valley hemmed in by low hills. Here it would be necessary to build a bed-rock dam, and bring the water down in pipes.

Although there is a good supply of water in both streams, it will be necessary to use the greatest economy in its storing and distribution and use. Many of the smaller garden spots can be irrigated by wells and wind-mills, as there is always a good, fresh breeze in the valley. The cost of bringing in a supply of water from the Sonoita to the town will depend greatly on the material used and the cost of freight from the railroad. For a rough estimate I think a dam could be built and the water brought into town for about \$12,000.

The land in these valleys, with proper irrigation, will prove very fruitful. The climate is all that can be asked for. There is an abundance of fire wood on the adjacent hills; good pine wood and steam saw-mill within thirty miles; good mines in the immediate vicinity; a market both in Sonora and at the mines for everything that can be produced, while it is the natural commercial point to supply Sonora with all she now imports from the United States.

Yours very respectfully,

WM. S. EDWARDS.

The accompanying lithograph of Calabasas presents an accurate and graphic picture of the scene. The town site is on a gentle plateau formed by the junction of the Sonoita and Santa Cruz. It has for a distant back ground the

SUPERB SANTA RITA RANGE,

Mount Wrightson being visible at every point. Close by the bold and striking Sierra San Orgeante impinges to the north and east, while opposite to the west, the Santa Cruz Valley broadens, and a lovely landscape is formed. Looking southward the Sonora ranges are outlined against the sky, while turning down the valley the eyes rest on the wild lines of the rugged Atascoso. Yet none of the Southern Arizona ranges are bleak or barren to the observer; all are grass-clad to their serrated summits. It will be seen that

A COMFORTABLE HOTEL

is in process of construction, contracts being already let for the brick. It will be a fine two-story structure of brick, with open verandahs, as befits climate; wide halls running through the building, and all modern appliances to insure comfort and coolness. It will be located

on the most elevated portion of the small plateau, the hotel square having already been laid out.

A feature of this enterprise will be the sinking of

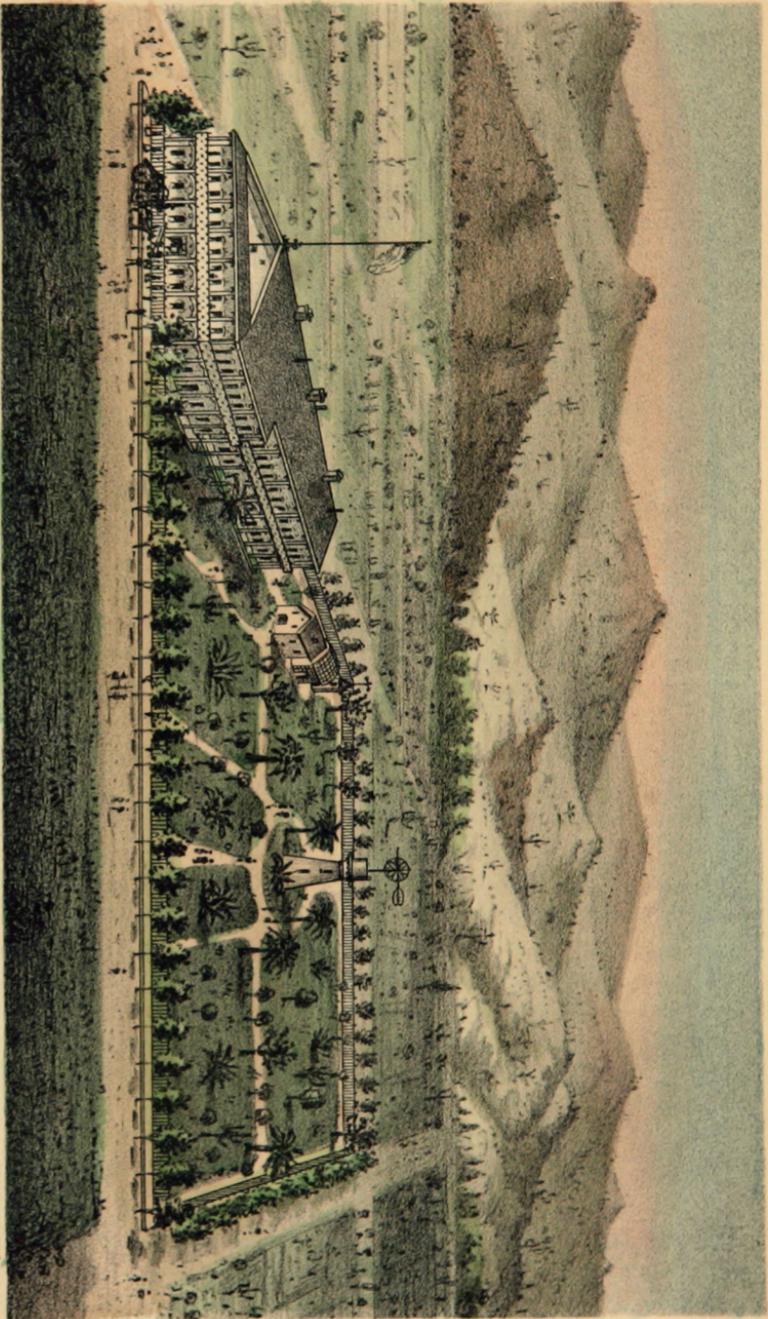
AN ARTESIAN WELL,

as Mr. Edwards has already indicated, water can readily be supplied by the forming of a dam, as well as by means of shallow wells sunk to tap the subteranean river; but the company, indisposed to trusting to these sources, have determined to spare no expense until artesian water is reached and the supply is placed beyond question. Windmills will be erected on the public square, in order to secure a distribution of the water. The town is handsomely laid out with broad streets as indicated by the annexed plan. Three finely located blocks have been set aside for parks, another block for school purposes, one for future county buildings, and one as an hotel block. Outside of the town-plat proper there will be laid out a large number of garden lots, bordering mainly on the Santa Cruz, of ample dimensions.

Turning from the town of Calabasas, attention is invited to the valuable

MINING PROPERTY OF THIS COMPANY.

That situated on the famous San Xavier Lode is the most valuable. This lode is now being worked by the San Xavier Mining and Smelting Company, whose shafts on the western extension, are in rich ore, and turning out large quantities daily. This property of the Calabasas Land and Mining Company consists, as per annexed map, of the SAN XAVIER, ARIZONA KING, ARIZONA QUEEN, PATTERSON and DEMOCRAT. The lode is near the Papago Indian Reservation, in the Santa Cruz Valley, and almost immediately on the 32d parallel of latitude, and the 111th degree of west longitude. The situation is most accessible, being but eighteen miles south by west of Tucson, at which point the road rises from the valley gradually across a gravelly *mesa*, or secondary mountain bench, covered by *cacti* and mesquite trees, and having a wide outlook in every direction. The small sierra, upon the southern face of which these mines are found, rises abruptly for three or four hundred feet from the table land or bench referred to already. It is a bold formation, singularly rugged in outline, not over two miles in either direction, being nearly as broad one way as the other, with each main front almost due east and west. Each location occupies 1500 feet along the well-defined lode, and



PLAN OF

"THE HOTEL & PLAZA AT CALABASAS,"

AS IT WILL APPEAR WHEN COMPLETED.

Construction now in progress will cost \$20,000.

BRITTON & GREY, LITH. S. F.

has a uniform width of 600 feet. The shafts now sunk on the western extension are near a well-traveled road from the Pima Mining District to Tucson, and a good road connects the district with the Upper Santa Cruz Valley, Tubac and the entire mining region described herein. The reports herewith annexed will define with sufficient accuracy the character of the ore, and it is sufficient to add at this point the assays which have been made thereof for

THE SAN XAVIER MINING AND SMELTING COMPANY.

The ores on the whole lode are of the same character, and thorough examination indicates equal richness.

Among the experts who have reported on this lode is a well-known practical miner, Thomas Davis, now superintendent of the Bushell and St. Louis mines, in the Santa Rita. Under date of April 20th, 1877, Mr. Davis reported to Mr. Sykes that he had found a small shaft near the eastern end, "showing metal on all sides." Tracing the vein west, he found croppings which show "the same character of ore in abundance. From here on to the main shaft on the old San Xavier mine, a distance of perhaps 6,000 feet, the vein shows in many places a heavy outcrop. The lode lies on a hill, isolated and running by itself; ore is found at the ends, on either side and all over it crops out in many places. Its situation makes it easily accessible. I have no hesitation in saying I can take ore enough out of this vein that is in sight to keep works running steadily for twenty-four months, at the rate of thirty-six tons daily, with but two weeks start. Examining this ore, I find yellow and some green chloride of silver and red hematite of iron, containing perhaps some gold. From tests that have been made I am certain this whole body of ore will yield, by proper working, \$60 per ton. For cheap working and immediate results with works properly handled I know of no property more desirable in this portion of Arizona."

W. W. THORNTON, MINING ENGINEER,

made in 1873 the following brief report to the former owner of the location :

"The San Xavier consists of argentiferous galena-carbonates. * * The result from reducing in Mexican furnace is 54 ounces of silver per ton, and 45 per cent. lead. From surface rock, assays made show gold, \$9 to \$19; silver, \$62.78 to \$400 per ton. Wood plentiful at from \$2 to \$3 per cord, with plenty of water available. * *

I have stepped the ledge at ninety-seven yards. It is a perfect mountain of ore."

The altitude of the San Xavier Lode is about 3,000 feet. The Santa Cruz Valley, or that portion of it lying between the mines and Tucson, contains one of the heaviest bodies of mesquite timber to be found in the Territory. This is a fact of great importance, as the charcoal made from this timber is admirably adapted for smelting purposes. The cost of this process is much below that of ores requiring milling and reduction works. Besides, that fact is one of still more value. The amount saved by smelting is from 92 to 95 per cent., while by reduction the result is seldom more than from 60 to 65 per cent. In the Santa Cruz Valley region the whole output of the San Xavier Lode will become profitable to the owners, as in addition to the silver obtained, the lead will be in demand for use as a flux in the treatment of the rich, but rebellious ores found in other mines and mining districts of this region. The location is a good one both for present and future purposes. The nearest railroad point is now 318 miles distant, being Yuma, on the Colorado River, the present terminus of the Southern (California) Pacific. The San Xavier lode is within eighteen miles of Tucson, nine of the Mission Church, thirty from Tubac,

FORTY FROM CALABASAS,

fifty of the Mexican lines, and 220 miles from La Libertad, the nearest port on the Gulf of California. Guaymas, an important port, is 335 miles distant. It is in connection by Mexican steamers with San Francisco, *via* Mazatlan, and the Pacific Mail Steamship line, which connect regularly at that port. The nearest Eastern railway point is on the line of Colorado and New Mexico, is distant about 625 miles by stage from Tucson to Mesilla, and thence to Santa Fé and the terminus of the Denver and Rio Grande Railroad. The location of this property is most advantageous on account of the quality of the ores, their easy working, the accessibility to the mines; facilities for timber and reduction operations generally; cheapness of labor, and the neighborhood of an industrious people.

REPORT OF WM. S. EDWARDS, SURVEYOR.

Tucson, A. T., April 20th, 1877.

Col. C. P. Sykes, Tucson, A. T.—SIR: On the 18th inst. I established the boundaries and made a general survey of three mining

claims, viz, "The San Xavier," "The Western Extension of the San Xavier," and "The Patterson," owned by yourself and others, and commonly known in Tucson as "The San Xavier Mines."

These claims are all on the same vein, adjoin each other, and were located in conformity to the U. S. Mining Law of May 10th, 1872.

As will be seen by the sketch accompanying this letter, each claim is fifteen hundred feet long by six hundred feet wide, and forms a continuous piece of ground for four thousand five hundred feet by six hundred feet wide. The bearing of the vein and side lines of the claims is N 79° E, and S 79° W true meridian; the end lines are at right angles to the side lines, and bear N 11° W, and S 11° E, true meridian.

This vein is situated in a small range of hills about two miles long by one-half mile wide, and having an elevation of about three hundred and fifty to four hundred feet above the surrounding country. That portion covered by the ground of the San Xavier and Patterson Mines is very rough and broken, being one succession of rugged bluffs and precipices; the western portion is of a more rolling character.

The vein is well defined by heavy croppings for the whole length of the three claims, and has been prospected by several small shafts, for a distance of nearly three thousand feet. One shaft on the San Xavier has reached a depth of eighty feet and has good ore in the bottom, one shaft on the Patterson has been sunk twenty-five feet with the same result. There is neither wood nor water on the mine itself. There are a few Palo Verde and mesquite trees on the hills, and a good spring of water about two miles west of the camp, and the Santa Cruz River lies about six miles east.

The road from Tucson is a natural one, never having cost a dollar; it runs up the Santa Cruz River bottom to San Xavier Mission, and thence out on the Mesa, winding around to escape some small arroyas and hills, making the distance from Tucson by the road about twenty miles. This road, like most in Arizona, is most excellent, there is a steady and easy grade, and the character of the soil (a closely packed gravel) makes the road for the best part of the way equal to the Cliff House Road of San Francisco. With little expense a direct road could be laid-out and built either to Tucson, San Xavier, or any other point on the river.

The country is covered with good grass; there is an abundance of water for all milling purposes in the Santa Cruz, while a heavy

growth of mesquite timber of the largest class, which cannot be surpassed for timbering mines and milling or smelting purposes, is found all along the river bottom and adjoining mesa.

Yours very respectfully,

WM. S. EDWARDS, Surveyor,
Tucson, A. T.

REPORT OF LEWIS WILLIAMS, ENGINEER AND MINING EXPERT.

OFFICE OF BISBEE, WILLIAMS & CO.

SAN FRANCISCO, Cal., Nov. 1877.

C. P. Sykes, Esq.—Dear Sir: At your request, I visited and examined the mining property which is situated in the San Xavier Mining District, Arizona, about eighteen miles almost due South of Tucson. The ride from the latter place to the mine is a very pleasant and picturesque one, over a hard, beautiful road, with a gradual grade all the way. I regret very much that so little has been done on the property in the way of development, but there is sufficient to demonstrate it to be a very fine prospect, and to give the strongest evidence of the existence of a large chimney or pipe of ore in the "C" shaft, indicated in the accompanying map. The character of the ore is argentiferous carbonates and sulphates of lead of varied grades. The formation in which the ore body is found is lime, encased within granite. It is a belt of limestone, running in a north-easterly and southwesterly direction, of from 150 to 200 feet in width. On the surface the ore is capped with limestone of a rather hard character. The belt is very prominent, traversing the country, and traceable a considerable distance. This may be called the outcrop of the ledge.

The accompanying certificate of assay made by George Darwin, assayer of the Melrose Smelting and Refining Works, will show you the grade and quality of the ore taken out as sample from the "B" and "C" shafts.

The "B" shaft is down only ten feet, the ore being found in pockets, but looking well. It is sunk in ore of varied richness; the yellow carbonate which occurs only in pockets being the richest. The "C" shaft is sunk the depth of eighteen feet. The entire width of this shaft is in ore, yielding a product of different grades, for value of which also see certificate of assays. This ore is a very fine quality, of smelting character and requiring very little iron as

flux. Of this latter mineral there is sufficient in proximity to the San Xavier mines, which can be had very cheaply.

The distance from the mines to where the furnaces should be located is from seven to eight miles, with a gradual and easy grade the entire distance. Wood can be delivered at the furnace location at a cost not to exceed \$2.50 per cord. Charcoal in unlimited quantity and good quality, made from the mesquite, can be bought at a cost of 20c per bushel. In all probability it can soon be had for 15c. Timber for building purposes can be purchased and delivered at the mine or furnace location at \$100 per thousand feet. There is every probability of this price being lowered, as mills are to be erected to cut the pine timber found on the eastern slopes of the Santa Rita.

In conclusion I would state that the mines are so located as to be cheaply worked. You are justified in holding them in high esteem, and the property offers a promising field for the legitimate investment of capital.

Yours respectfully,

LEWIS WILLIAMS.

Assays.

MELROSE SMELTING AND REFINING COMPANY.

MELROSE, Cal., Nov. 6, 1877.

Return of silver and gold ore samples, deposited for assay by C. P. Sykes, Esq.:

ASSAY NO.	DEPOSITORS' MARK.	LEAD.	SILVER.	GOLD.	VALUE PER TON OF 2,000 lbs.
1	Selected from main ore body in "C" shaft	72 pr ct.	\$180.96	traces	\$180.96
3	From average ore body (7ft wide) do	58 pr ct.	48.09	"	48.09
7	Selected sample yellow carbonate, in "B" shaft		150.80	"	150.80
8	Average ore in do.	55 pr ct.	64.09	"	64.09

GEO. W. DARVIN, Assayer.

NEVADA METALLURGICAL WORKS.

SAN FRANCISCO, May 7th, 1877.

C. P. SYKES, Esq., 240 Montgomery St., San Francisco :

Lot No. 1243. 1 box of ore marked "C" shaft, total weight, 121½ lbs; San Xavier Mine.

The whole was crushed, etc., and carefully sampled, and the average samples proved the ore to contain by assays (No. 6253) :

Gold traces.

Silver, 55.89 ounces = \$72.26 per ton of 2,000 lbs.

Lead, 50 3-10 per cent.

120 lbs of this ore was smelted with lime and iron, and the result was 732.64 ounces (Troy) of lead bullion, which carries 95 per cent. of lead, and is 004.4 fine in silver.

This shows that a ton of ore yields \$68.40 in silver, and that the ore yielded 42.2 per cent., in lead.

The lead bullion produced is worth per ton of 2,000 lbs :

In silver.....\$162.16

In lead..... 95.00 @ 5c. per lb

Total value of the bullion is\$257.16 per ton.

It takes 2 tons 743 lbs of this class of ore to produce 1 ton of bullion of the above value (of \$257.16 per ton).

HUHN & LUCKHARDT.

ESTIMATES AND PROFITS OF WORKING THE ORE.

The following are Mr. Williams' estimates for mining, smelting, and separating the silver from the galena of the San Xavier mine :

Cost of mining (including timber)	\$5.00	per ton
" hauling.....	3.00	"
" charcoal (30 bushels), at 20c.....	6.00	"
" smelting labor.....	2.50	"
" fluxes.....	2.00	"
" of separating, per ton of ore.....	2.50	"
" superintendent and incidental expenses.....	1.00	"
	<u>\$22.00</u>	"

Cost of mining and smelting 100 tons of ore at \$22 per ton	\$2,200.00
The present average value of ore found in shafts, per ton in silver.....	56.00
Value of silver recovered in smelting 90 per cent. of assay value.....	5,040.00

Resume:—\$5,040—\$2,200=\$2,840 profit per day, leaving the lead clear as a flux for rebellious ores.

Later reports have been received by the San Xavier Mining and Smelting Company, which, as they bear directly upon mining property of the Calabasas Land and Mining Company, are inserted here:

TUCSON, A. T., June 22, 1878.

D. W. F. BISBEE, ESQ., Pres. San Xavier Mining and Smelting Co., San Francisco, Cal.—Dear Sir:—Have visited the San Xavier Mine, and find that your superintendent, Mr. White, has done remarkably well in the prosecution of the work assigned him. "B" shaft, at the present working in the drift at incline, gives indications that the ore body which was left in sinking vertically, will be reached in a few days. "C" shaft is down about 60 feet, it has an inclination of 50 deg. to the south and east.

IT IS ALL IN ORE AND LOOKS VERY FINE.

The ore in the bottom of "C" shaft has materially changed in character; sulpherites having taken the place of the oxide and carbonates which predominated on and near the surface. You must not in the future compare the San Xavier ore with the Eureka Consolidated. It is not, but is a fac-simile to the ore produced at the

WHITE AND SHILO MINES

in Nevada, possessing the requisite climate to work it *very* cheaply by the Lixivation process. This process had been adopted by the White and Shilo Mining Company, and by many mines through Sonora, Mexico, where it gives the very best of satisfaction. *It pays well.* The ores of this class, when properly worked, is done at 25 to 50 per cent. less cost in the production of the precious metals than by smelting. In this process all the base metals are eliminated, and nothing but the silver and gold saved.

I do not consider the change in the character of the ore unfavorable to the mine, but to the contrary, it enhances the value. As greater depth is attained, and the water level approached, we may expect other changes in the character of the ore, and a much richer product in silver gained. I have suggested to Mr. White, in his future operations at the mine, to adopt the system of following the ore wherever it may happen to lead. This course in the opening of the mine will keep him constantly in the ore body, and cost less to work. When

the company are satisfied that they have a big mine, they can then more intelligently direct the sinking of vertical working shafts.

Yours, very truly,

LEWIS WILLIAMS.

From Mr. Edwards comes a later and closer survey

OF THE WHOLE PROPERTY.

TUCSON, A. T., June 26, 1878.

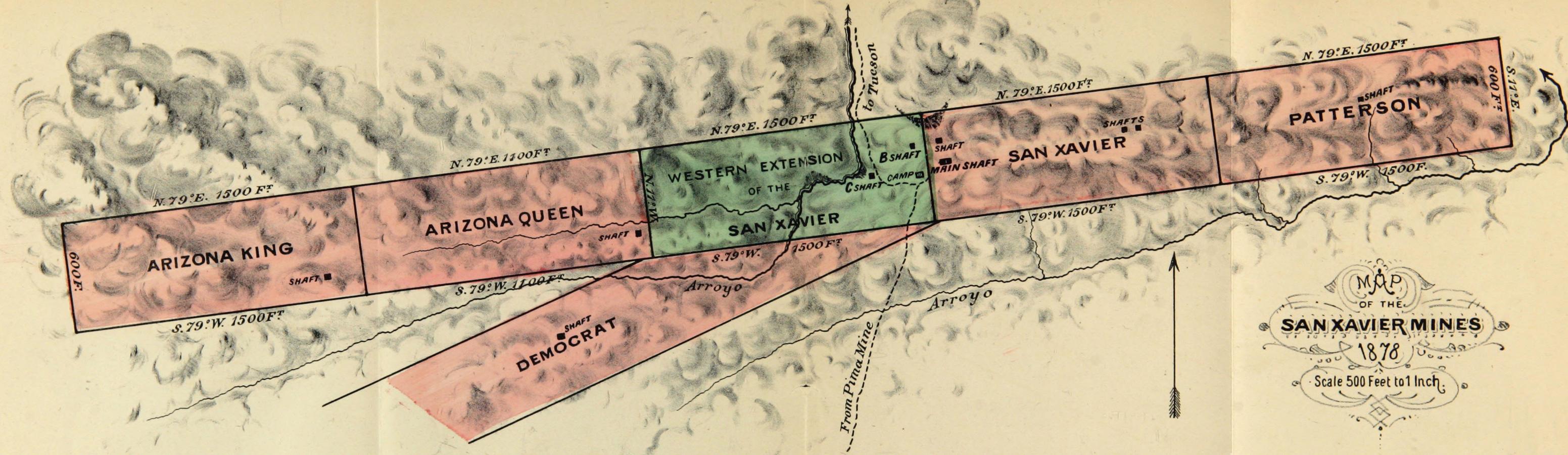
COL. C. P. SYKES, 32 Merchant's Exchange, San Francisco, Cal.
Dear Sir :—In April, 1877, I made a general survey of the San Xavier Mines, distant about eighteen miles in a south-westerly direction from the city of Tucson, Pima County, Arizona Territory. The mines included in that survey were the Patterson, (sometimes called the Knoxville,) the San Xavier, the Western Extension of the San Xavier, the Arizona King, and the Arizona Queen. At that time I was very much taken with the prospects and value of the property, and have ever since watched with great interest the progress of work and developments, and have made several visits to the mines; the last, on the 21st of the present month, in company with Mr. Lewis Williams, of the firm of Bisbee, Williams & Co., Mining Engineers, San Francisco. We found everything working nicely and the mine much improved. Some time since a spur vein making from the western extension of the San Xavier to the southwest was located, and may now be considered as belonging to the same mineral deposit; this location is called the Democrat and shows well.

The country rock or formation is granite, although the body is accompanied by a well-defined belt of limestone some two or three hundred feet wide, and the vein is in places capped with this lime, though not sufficient to cause any material break in the croppings, which are traceable nearly the whole length of the claims, a distance of over one mile.

The principal workings are on the western end of the San Xavier and the eastern end of the "Western Extension;" but

THE HEAVIEST OUTCROP

is, in my opinion, about the junction of the Patterson and the San Xavier Mines. The developments of these mines are as follows: on the Patterson, one shaft toward the eastern end about twenty-five feet deep; one shaft toward the western end about ten feet deep. On the



MAP
 OF THE
SAN XAVIER MINES
 1878
 Scale 500 Feet to 1 Inch.

San Xavier, one shaft near the western end, about eighty feet deep ; a couple of small holes about the center of the claim ; one on the eastern end of the claim, and one on the western end. On the "Western Extension" there are three shafts on the eastern end of the claim, which have attained a depth of seventy-one, fifty-seven and twenty-three feet respectively. I mention this mine and its developments, as it is the centre of the group, and its developments virtually determine the value of the other locations.

On the Arizona Queen there is one shaft about the center of the claim thirteen feet deep. On the Arizona King there are two shafts, each about ten feet deep. On the Democrat there are two shafts, the eastern one eleven feet deep ; the western one, ten feet deep, and one cut about twelve feet long and ten feet deep. The openings on all the mines show more or less ore, and the deep shafts on the Patterson, San Xavier, and the Western Extension

HAVE PRODUCED ALL ORE,

with no waste material. Like all mines in Southern Arizona, the ore on the surface of the San Xavier Mines was more or less decomposed on the surface, and changed immediately with depth for the better, both in quantity and quality, and every indication of permanency. The developments on the San Xavier and Western Extension have demonstrated, beyond a reasonable doubt, the existence of a very large permanent body of ore of more than average richness, and a class that can be worked at a reasonable cost. It would be hard indeed to find a group of mines so favorably situated as the San Xavier are for economical working.

The accompanying sketch will serve to show the relative positions of these mines.

Yours very respectfully,

WM. S. EDWARDS.

Concurrent testimony is added from the San Francisco *Evening Post* :

ARIZONA.

A BIG THING AT THE SAN XAVIER MINES.

Special Dispatch to the Post.

TUCSON, A. T., May 25th.—Mayor Toole, Surveyor-General Wasson, William W. Williams, of the firm of Lord & Williams, and others, accompanied by C. P. Sykes, of San Francisco, visited the San Xavier Mines, twenty miles south-east of Tucson to-day, and returned this evening. They report about 200 tons of ore on the

dumps, which will run \$75 to \$100 to the ton in silver, and brought home specimens taken by themselves from the bottom of the shaft that will go upwards of \$200. One shaft is now thirty-seven and the other thirty-five feet deep. The gentlemen are experienced miners, well acquainted with Arizona ore, and express themselves surprised that so large a body of ore could have been taken out so quickly, and the immense body of mineral shown in the shafts and croppings surpasses anything they have ever seen in the Territory.

RICH ORE IN ARIZONA.

Special Dispatch to the Post.

TUCSON, June 3d.—Huge specimens of ore from San Xavier Mines were brought in on Saturday last, and are on exhibition at the *Star* newspaper office. They were taken from the bottom of the shaft, where is shown 254 feet of metal without a break in the walls. The immensity of the body is the great attraction among experts, and it grows richer. Specimens of the main body show \$200 a ton in silver, with gold traces. Other specimens show \$300 and \$400 in silver. Eastern parties are visiting the mines daily.

From the San Francisco *Stock Report*.

RICH ORE IN ARIZONA.

TUCSON, June 29th.—There is much excitement here over rock taken from C shaft, San Xavier Mine, brought in by Superintendent White yesterday. Gray carbonate, which is rich in silver, now shows in large quantities at the bottom of the shaft. The shaft is now seventy feet deep, and some of the finest ore we have yet seen in Arizona is being taken out. Hundreds of specimens are carried away for cabinet purposes daily.

There are also on exhibition at the office of the San Xavier Company, No. 32 Merchants' Exchange, some magnificent specimens taken from a point above that indicated in the above dispatch. Mr. Louis Williams, the well-known mining engineer, is now at the mine and has written a most flattering letter regarding its prospects. The ledge is fully 200 feet wide between the walls, and the ore is uniform in value. Mr. Williams says it can be worked cheaply and profitably by the same process now used so successfully at the White & Shiloh Mine in Nevada. One by one these Arizona properties

develop into valuable mines, and if all that is said be true, the San Xavier, near Tucson, is one of the best yet discovered.

From the *Star*, Tucson, A. T., May 30, 1878, we give the following:

SAN XAVIER MINES.

We visited, on Friday last, in company with C. P. Sykes, of San Francisco, and several of our citizens, the San Xavier mines, and all were agreeably surprised at the amount of work which has been done on two shafts, and the show of about two hundred tons of ore on the dumps. These mines are located twenty miles south of Tucson, in the vicinity, but beyond the old Mission Church, and the two shafts are down respectively 35 and 37 feet, and going deeper at the rate of two and three feet per day. The showing in the Western Extension Mine is of that character to at once interest visitors, as a distinct ledge of seven to eight feet is really discernable nearly from the top. As one descends, the ore body retains the width, carrying 50 per cent. lead, while average assays show \$95 in silver, still we took ore from the bottom of the shaft, which will go as high as \$200 in silver. It is an easy smelting ore, and the general appearance of the claim gives almost unmistakable evidence of an immense body of metal reaching far up the mountain, and along the foot hills, where the croppings seem to be continuous. It is the purpose of the company, we are informed by Mr. Sykes, to sink the two shafts a sufficient depth to ascertain beyond a doubt the quantity of ore, the quality being already more than satisfactory. The company will erect smelting works on the Santa Cruz River, about seven miles distant, for smelting their own ores. The facilities for hauling the ores are very favorable, there being a slight down grade from the mine to the river, and the wagons can be loaded at the shafts very readily, ingress and egress being unusually favorable. Mr. Sykes returned to San Francisco on Saturday last, well pleased with the prospect, and is prepared to make a favorable report. He is an experienced miner in California and Nevada, as is also Mr. White, the Superintendent, and they assert that in all their experience they never have seen a more flattering prospect as to the quantity, and as we said before, the quality is more than satisfactory. The parties who visited the mines with us, who are also experienced in mining, are also of the opinion the San Xavier mines will yield larger than any they have yet seen in the Territory. We hope this will prove true, as the company is com-

posed of solid men, and once they are satisfied, the work will develop into a large mining interest, such as Southern Arizona will profit largely from.

Col. C. P. Sykes is not only an experienced mining man, but a newspaper man of many years' experience, and of somewhat national fame.

THE BUENA VISTA MINE

is located about eighteen miles directly west of Tucson. The lode is one well known to the Mexicans, and has been worked more or less fitfully for many years past. Of the Nequilla mine, which adjoins the Buena Vista, the "Handbook to Arizona" says, it "is twelve miles west of Tucson, in the Amale mountains; it was discovered in 1865; the vein courses north-east and south-west; it is mostly amalgamating ore." The mine is tabulated in the same work as having "120 feet shaft with two tunnels" sunk thereon. The lode runs from 1 to 6 feet wide. As to the possible importance of this location, it is believed by many who have watched the course of the surveys, exploring and definite, made by the engineers of the Southern Pacific R. R., that if, as is deemed likely, the road shall debouche south from Maricopa Wells, on the Rio Gila, that it will follow a route some miles to the west of the present mail stage road to Tucson and pass directly between the two sierras of Tucson and De Amale, at no great distance from the Buena Vista mine.

THE COMPANY'S SURVEYOR

reports as follows of this valuable mine:

TUCSON, A. T., May 19, 1877.

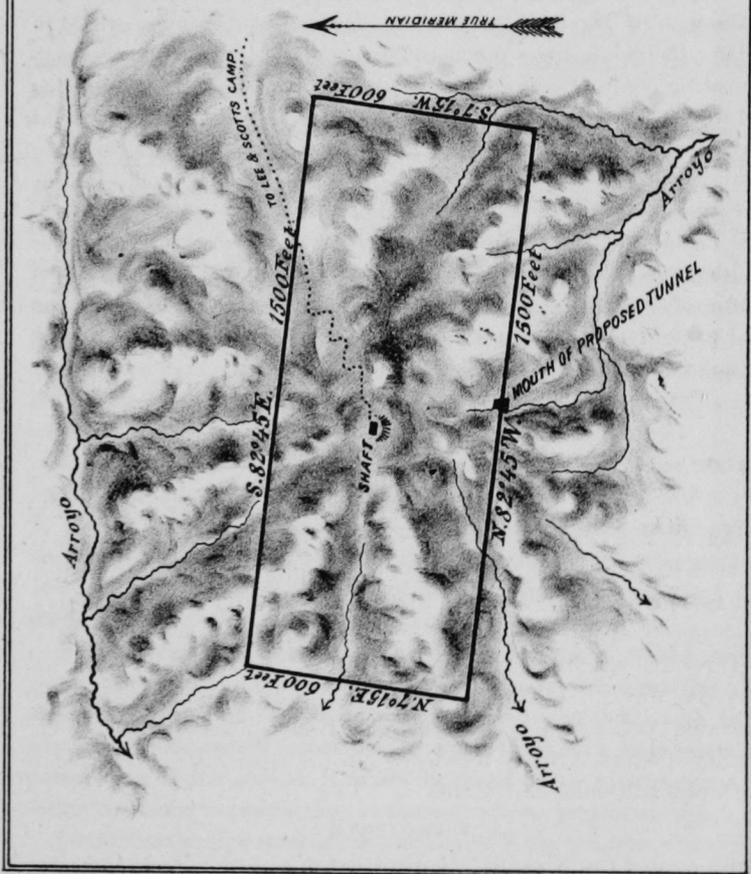
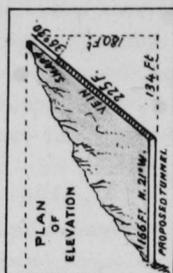
Col. C. P. SYKES, 17 New Montgomery St., San Francisco, Cal.—
Dear Sir:—According to your instructions of May 7, 1877, I made a general survey of the Buena Vista mine, a plat of which I this day send you by mail.

This mine was located in January, 1877, under the U. S. Mining Laws of May 10, 1872, and is situated in what is known as the Sierra de Amale Mining District, about twelve miles west of Tucson, County of Pima, Arizona Territory. In this same district, and about one and a half miles east of the

BUENA VISTA

is also located the Nequilla Mine, patented to Lee & Scott in 1872. Sufficient work has been done in the Nequilla to demonstrate the

PLAT.
OF THE
BUENAVISTA
MINE
1878



LITH. BRITTON & REY. S. F.

permanency of the vein, and fine results have been obtained from the ore by the rudest methods of working. There are three springs in the district, which yield a small but permanent supply of water sufficient for drinking purposes, but nothing more. The one nearest to the mine is situated in the cañon, about three-quarters of a mile west of the shaft. The hills are covered with Palo Verde and a few mesquite trees. A good wagon road is constructed from Tucson to Lee and Scott's camp, distant about one mile from the Buena Vista. The Tucson mountains lying between Tucson and the mines, causes the road to wind around their southern base, making the distance by the traveled road about eighteen miles from Tucson.

The Buena Vista mine is located N. 82 deg. 45 min. W., and S. 82 deg. 45 min. E. Though I find the vein (as indicated by the walls) running N. 86 deg. W., and S. 86 deg. E.

There is an incline sunk on the vein in the centre of the claim, to a depth of forty-five feet, from the bottom of which there is a drift, run in a westerly direction for sixteen feet, exposing a vein of

FINE ORE, FIVE FEET WIDE,

between well-defined walls. The mouth of the shaft is one thousand two hundred and twenty feet (1,220) above Tucson; seven hundred and fifty feet (750) above Lee & Scott's Camp, which bears S. 60 deg. E., and one hundred and eighty feet (180) above the southern boundary of the mine. By reference to the "Plan of Elevation," you will see the vein has a dip of 53 deg. 30 min. to the southward.

A tunnel commenced on the south boundary of the claim, at the head of the Arroyo, which runs to the southward, would have to run N. 21 deg. W., to connect with the present incline, and would strike the vein at a distance of 166 feet from its mouth, and at a depth of 180 feet, and an actual distance of 225 feet from the mouth of the incline.

If you determine on a tunnel in this direction, I would advise going off the ground of the Buena Vista claim, further down the hill, some three hundred feet, as a wagon road might then, with little expense, be constructed to its mouth. But I think, by a more thorough prospecting of the ground, it might be found more advantageous to locate the main works further to the east of the present incline.

I examined a ridge coming into the Buena Vista hill from the south-east, with a view to the construction of a wagon road between Lee & Scott's road and the Buena Vista mine. I find this ridge offers a

very good course for such a road. Its distance would be less than a mile, and with the outlay of a few hundred dollars, the mine could be placed in direct "wagon road" communication with Tucson.

Respectfully Yours,

W. S. EDWARDS.

The following certificate of assays was made at the well-known
NEVADA METALLURGICAL WORKS, OF SAN FRANCISCO.

SAN FRANCISCO, May 9, 1877.

C. P. SYKES, Esq., San Francisco.

Lot No. 1253, 1 small bag of ore; weight, $6\frac{1}{10}$ lbs, mark, "Buena Vista."

The whole was crushed and pulverized, and the average pulp samples proved the ore to contain by assays (6369)—Gold traces; silver, \$234.24 per ton; lead, $62\frac{1}{2}$ per cent.

There were $6\frac{1}{10}$ lbs. smelted with iron, little quartz and lime, and the result was 52.2 oz. of lead bullion, which was 97 per cent. in lead and 008·8 fine in silver.

This shows that the ore yielded at the rate of 59.37 per cent. in lead, and also \$213.11 per ton of 2,000 lbs in silver.

The lead bullion as produced is worth \$325.67 per ton (2,000 lbs) in silver, and do. \$97 in lead, at 5c. per lb.

Total value of the lead bullion, \$422.67 per ton.

In other words, it takes 1 ton and 1057 lbs of this class of ore to make 1 ton of bullion of the above value.

HUHN & LUCKHARDT.

As further proof of the value of the company's mining property it may be said, that

THE WESTERN EXTENTION

of the San Xavier mine—the claim now owned and worked by the San Xavier Mining and Smelting Company—at the time of its purchase, did not present any more favorable or promising indications than the other claims on this extensive lode, all of which belong to the Calabasas Land and Mining Company. The same bold outcrop and favorable surface indication for the entire distance of more than 7,000 feet was so prominent, that it was with great hesitancy the San Xavier Company decided to purchase the Western Extension, they having at the time the privilege of a choice of location on the lode. The development upon the Western Extension was only

commenced late in March, 1878, and from the starting in sinking two shafts, 254 feet apart, up to this date, August 10, 1878, to a depth of about 75 feet each from the surface, they have been in the ore body constantly, taking out over 500 tons of ore, the value of which is nearly, if not quite sufficient to pay for the erection of reduction works. This has been done by the company at an expense for mining, not exceeding the sum of \$4,000. With the present prospect, as per the workings of the Western Extension of the San Xavier, the company are fully warranted in expecting that, with the expenditure of from \$15,000 to \$20,000, to put their claims on the San Xavier Lode in a condition to take out

ONE HUNDRED TONS OF ORE PER DAY.

That will produce daily results as per the estimate of Mr. Lewis Williams, Mining Engineer, already included in these pages.

IN CONCLUSION.

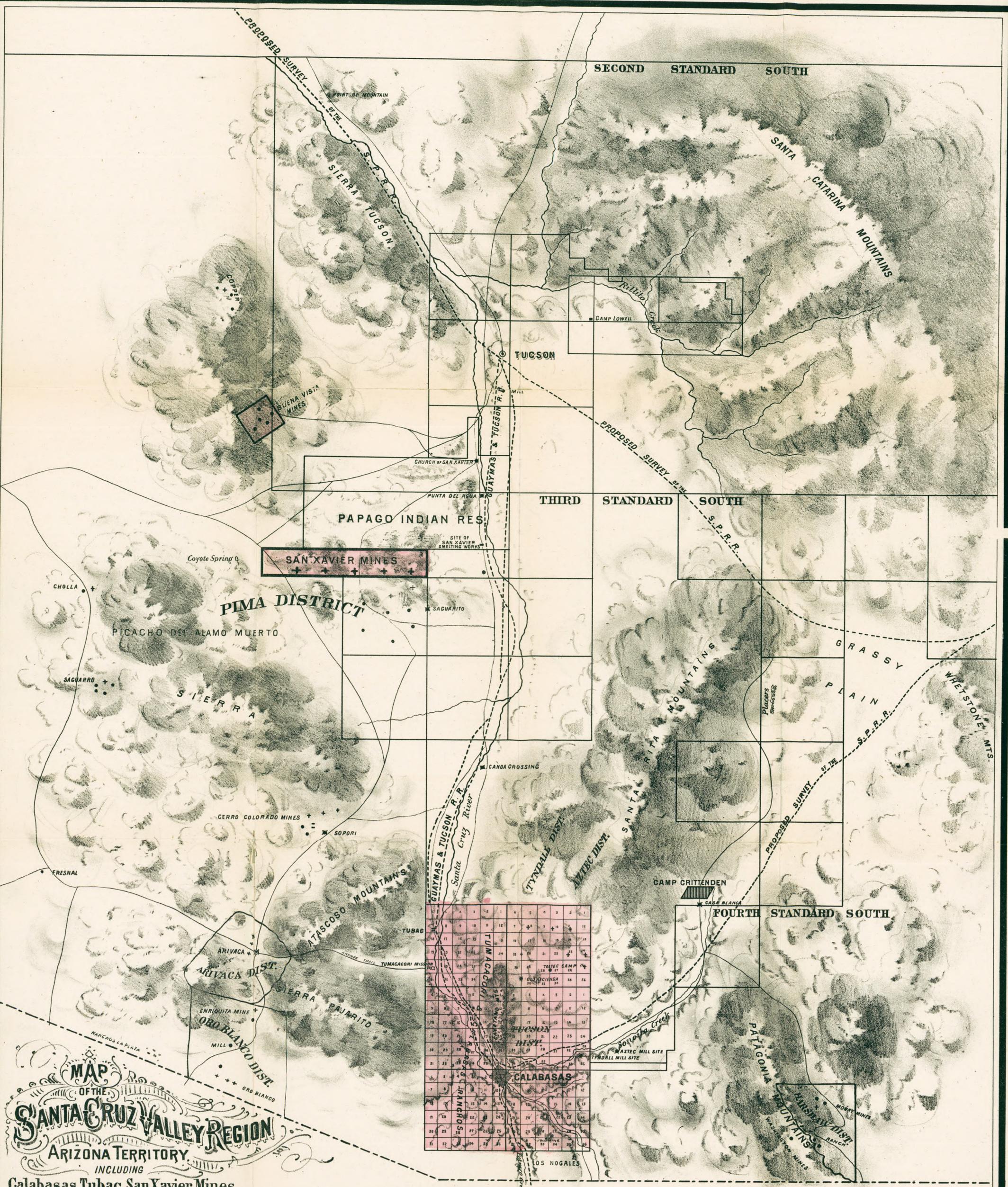
The Calabasas Land and Mining Company offer their valuable property to the public, in full knowledge of its importance. Investors will find in the market no more promising enterprise. The policy of the company will be of the most liberal character, as it is its deliberate design to induce settlement and promote development. The propositions of the company are in themselves sufficient to indicate a sound financial success. They present to the investor a new feature—a feature seldom connected with the formation of any mining enterprise. This is the

REAL ESTATE BASIS,

worth more than the cost of the stock purchased. The facts adduced as to the character of this section, are sufficient to establish the claim that there will be a steady increase in the value of this whole property. Each year will see a larger population and more extensive improvements, and therefore each year will see the stock and property of this company grow in value. Besides the town of Calabasas, there are six valuable mines, which wait only the combination of industry and capital to place their hidden treasures into the hands of stockholders. With this safe financial outlook, the company have no hesitancy in declaring that the public has never had a better prospect presented for a safe and remunerative investment. We therefore invite the most thorough examination, being confident of a favorable result. All information needed will be furnished, and all facilities will be extended by the company's officers in San Francisco and Arizona.

DISTANCES FROM CALABASAS.

	MILES.		MILES.
To Tubac, N.....	12	To Sonora Line, S.....	10
“ San Xavier Mines, N... 40		“ Santa Rita Placers, N.E. 25	
“ Tucson, N..... 65		“ Arivaca District, W..... 15	
“ Camp Crittenden, E.... 20		“ Oro Blanco District, W. 20	
“ Camp Bowie, E..... 110		“ Plancha la Plata, S.W.. 20	
“ Maricopa Wells, N.W.. 158		“ Cerro Colorada, W..... 16	
“ Yuma, W..... 360		“ Aztec District, N.E.... 10	
“ Florence, N..... 130		“ Washington District, S.E 15	
“ Phenix, N..... 185		“ Tombstone District, E.. 50	
“ Prescott, N..... 318		“ Mowry Mines, S.E. 14	
“ San Diego, W..... 527		“ Santa Cruz, SE..... 25	
“ Silver City, E..... 250		“ Magdalena, S..... 65	
“ Globe City, N..... 125		“ Altar, S..... 80	
“ El Paso, Texas, E..... 450		“ Lobos, S.W. 152	
“ Santa Fé, N.E..... 750		“ Port La Libertad, S.W. 165	
“ Mesillo, E..... 406		“ Hermosillo, S..... 195	
“ San Francisco, N.W.... 1080		“ Guaymas, S. 290	
“ St. Louis, Mo., N.E.... 1500			



MAP
 OF THE
SANTA CRUZ VALLEY REGION
 ARIZONA TERRITORY
 INCLUDING
 Calabasas, Tubac, San Xavier Mines
TUCSON & SANTA RITA MTS.

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The value of this work to our territory is incalculable, and, on account of its valuable information and unusually interesting matter, it can not fail to become very popular and command an exceptionally large circulation.—[Arizona Citizen, Florence, A. T.]

This book, with all its accompaniments, is, moreover, thoroughly practical, and could not have appeared at a more opportune moment.—[San Francisco Mining Press.]

The author has evidently made a careful study of his subject, and has produced a work that will not be superseded, and for many branches of information will not need to be superseded.—[Alta California, S. F.]

The work of Mr. Hinton, entitled "The Hand-Book of Arizona," is a book which is sure to find readers. It would be almost impossible in this short space to mention all the subjects elaborated upon in this work. But suffice it to say that the reader will find in it a highly entertaining and instructive history, past, present and future, of by far the richest district, naturally, in the United States of America.—[Mining Record, New York.]

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204 Sansome St., San Francisco.

AMERICAN NEWS COMPANY, New York City.

THE HAND-BOOK TO ARIZONA will be sent, postage paid, by Chas. Cranz, Jr., Room 14, 302 Montgomery Street, San Francisco, Cal., on receipt of Post Office Order for Two Dollars.