

# INFORMATION

RELATIVE TO THE

# City of San Diego,

CALIFORNIA.

ILLUSTRATED WITH TWENTY-TWO PHOTOGRAPHIC VIEWS.

CONTAINING, ALSO, A

## BUSINESS DIRECTORY

OF THE CITY.

SAN DIEGO:

OFFICE OF THE SAN DIEGO DAILY UNION.

1874.

# SAN DIEGO Water Company,

SAN DIEGO, CAL.

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Persons proposing to make their residence in San Diego very naturally ask in regard to the quality of water and the adequacy of its supply. No one will be disposed to build where their houses cannot be protected from fire, and the grounds round about them improved; or where wholesome water for drinking, and soft water for washing cannot be obtained. Can then good water for these purposes be furnished, sufficient to meet the demands of the population when San Diego has grown to be a large city? We answer authoritatively, Yes.

It is true that many of the wells heretofore sunk, the depth of which has been quite limited, have not yielded soft or pure water, and for a time the impression was prevalent that the city would be compelled to get its supply from the San Diego river or from the Sweetwater, by pipes from five to ten miles in length. But the SAN DIEGO WATER COMPANY, controlled by the good judgment and indomitable energy of its President, Henry M. Covert, have solved the problem satisfactorily. Their wells are now completed, and they are prepared to supply good artesian water in unlimited quantity.

This Company was incorporated February 13th, 1873, with a Capital Stock of \$90,000. Their place of business is San Diego. The water supply is obtained from artesian wells located a half mile from the Bay, in the south-west corner of the City Park. These wells, two in number, are three hundred feet deep, tapping a running stream eleven and one-third feet in depth, beneath a stratum of fifty feet of solid rock; they discharge fifty thousand gallons per hour. The first reservoir that receives this volume is a cylindrical shaft one hundred and seventy feet deep and twelve feet in diameter. Its bottom is laid in concrete, and it is curbed to the surface with hard brick and cement. The second reservoir, with an altitude above mean tide of one hundred and seventeen feet, has a capacity of about seventy thousand gallons. Water is forced from the first to the second reservoir, which is larger than is required to meet the present demand, by one of Hooker's double-acting suction and force pumps, worked by steam, with a capacity of forty thousand gallons per hour. From this reservoir the city is supplied by pipes running through all the principal streets, from which pipes water can be projected without the use of "cranes," to the tops of the highest buildings. The machine shops, apparatus and machinery of these extensive works are complete, on a massive scale, and finished in the most workmanlike manner. The water, also, is very pure, sweet and wholesome.

DESCRIPTIVE, HISTORICAL, COMMERCIAL, AGRICULTURAL,

AND OTHER

IMPORTANT INFORMATION

RELATIVE TO THE

CITY OF SAN DIEGO,

CALIFORNIA.

ILLUSTRATED WITH 22 PHOTOGRAPHIC VIEWS.

CONTAINING ALSO

A BUSINESS DIRECTORY

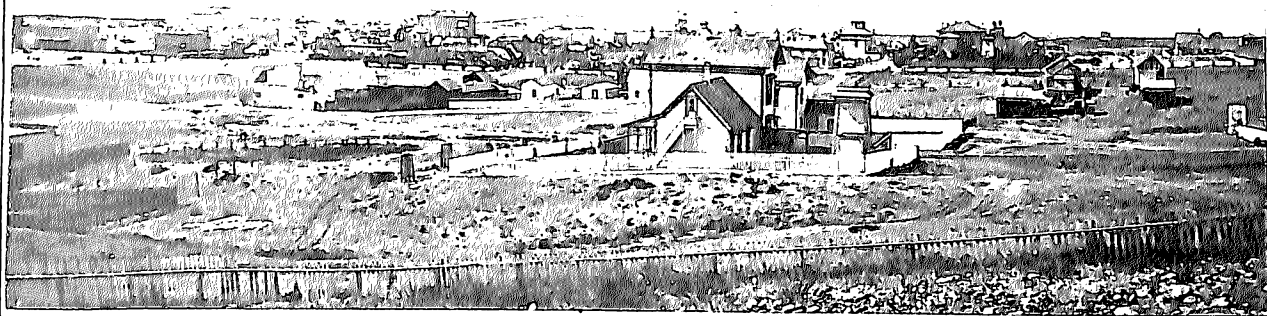
OF THE CITY.

San Diego (county)

Published by the Chamber of Commerce of the City of San Diego.

PRINTED AT THE OFFICE OF THE "SAN DIEGO DAILY UNION."

1874.



Sectional View of San Diego City and Harbor, looking towards Point Loma, from the N.E.  
By PARKER & PARKER.



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*To the Chamber of Commerce  
of San Diego, Cal.:*

The committee appointed by your honorable body, with instructions to publish, in a comprehensible form, information of a reliable character, setting forth the advantages of this city and surrounding country, as a desirable locality for persons seeking new homes and health, present to the public, through your honorable body, the following work, comprising:

First—An Essay on its Climate, Resources, and Commercial Importance.

Second—An Article entitled “Among the Wild Flowers of San Diego,” by James S. Lippincott.

Third—Meteorological Statistics for 1871, 1872, and 1873, from the records of the observer's office, signal service United States army, and from the Smithsonian records, kept by G. W. Barnes, M. D.

Fourth—Illustrated by twenty-two photographic views of of Business Houses, Residences, Gardens, and Historical Localities.

Fifth—The names of Schools, Academies, Churches, Religious and other Societies and Organizations.

Sixth—A Business Directory.

E. A. VEAZIE,  
A. PAULY,  
E. W. MORSE,  
JAMES S. GORDON,  
J. B. WELLS,

Committee.

SAN DIEGO, CAL., May, 1874.

## PREFATORY.

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The City of San Diego, California, is situated in the county of San Diego, in latitude 32° 41' North, and within fifteen miles of Mexican territory. Its magnificent Bay was discovered by Juan Rodriguez Cabrillo, September 28, 1542, and was by him named San Miguel. By act of Congress this favored location has been so far appreciated as to be proclaimed the terminus of the Texas and Pacific Railway in California.

Less than seven years ago the tract of land now occupied by about one thousand buildings, and known as San Diego, was covered with a heavy growth of cactus and bushes, where thousands of hare and quail enjoyed almost peaceful possession. The place is beautifully located east of the Bay. Nature in her most accommodating mood seems to have formed a site expressly for an attractive city, to extend for miles along the water's edge, as the land slopes gently to the shore of the Bay. From nearly every part a most charming view is presented of the placid harbor—the light-house promontory—the sparkling surf of the gently-waving waters of the Pacific—the distant Coronada islands—and the far-off mountains of our own and of a foreign land. Four miles northward stands the original and ancient-appearing "OLD SAN DIEGO." It was settled by the religious order of Franciscan Fathers in the year 1769, and has not yet wholly emerged from its clay walls and crumbling ruins into the light and life of American civilization.

The San Diego of future renown did not originate in the idea of a missionary station, but in that of a *railway station* and terminus. Mr. A. E. HORTON is its founder, as he was in 1867 the purchaser of about eight hundred acres of the city's most eligible lands adjacent to the water-front. Every impulse of his most sanguine nature, and every golden accumulation of his successful investment, have thus far been devoted with a lavish hand to the advancement of the new place. The enthusiasm, the enterprise, and the unwavering faith of this gentleman in the coming greatness of San Diego, have added largely to its growth. When a hall, a wharf, a hotel, or other public improvement was demanded, his purse responded. His example became contagious in a good degree, and the unexcelled natural city site rapidly developed in improvement and beauty under the irrepressible enterprise of himself and his co-laborers. The attractive young city,

in its infancy, is a monument of which all may justly feel proud. And when in future years the diversified hills and valleys around it shall become the seats of thousands of attractive homes, amid perpetual fruits and flowers, the visitor from other climes will wonder that a spot warmed by so genial a sun, and fanned by such health-laden breezes, should have remained so long unappreciated and unknown.

Here may be appropriately added a word respecting title to the ground on which the new city is thus far built. It is part of a domain of eleven leagues granted by the Mexican government to the City of San Diego, to be used, controlled and disposed of by the legally authorized representatives of the city. That grant has been confirmed at Washington, and the Patent and Seal of the United States not only settles the boundaries of the old Pueblo endowment, but warrants and defends its grantees. With the exception of some of the city lands earliest sold, whose owners have neglected to pay their taxes or protect their property from claimants by possession, the City's title may be pronounced PERFECT. Purchasers, now, to find where shadows upon title begin, have only to note where improvement stops.

#### ERRATA.

The article entitled "Among the Wild Flowers of San Diego," contains the following errors, which the reader is requested to correct. Justice requires the statement that the paper was printed from a manuscript copy by another hand, and the proofs read in the absence of the author.

- Page 27, 12th line from top, for stumps of *Lithraealaurina* read clumps of *Lithraea laurina*.
- Page 27, 13th line from top, for (*cucumis perennis*) read *Echinocystis*.
- Page 27, 26th line from top, for *maschatum* read *moschatum*.
- Page 27, 10th line from bottom, for should read would.
- Page 28, 1st and 8th line from top, for *Calandrina* read *Calandrinia*.
- Page 28, 13th line from top, for *Salsoda* read *Salsola*.
- Page 29, 12th line from top, for a *Gilia* or *dianthisflora* read *Gilia dianthisflora*.
- Page 29, 13th line from top, for *orthocarpus purpurascens* read *Orthocarpus purpurascens*.
- Page 29, 13th line from top, for *castilleja* read *Castilleja*.
- Page 29, 14th line from top, for *myosotis* read *Myosotis*.
- Page 29, 17th line from bottom, for hanging their pink read hanging out their pink.
- Page 29, 7th line from bottom, *mirabilis California* read *Mirabilis Californica*.
- Page 30, 11th line from top, for *A Clematis*, perhaps the *erecta*, *Anemone* of this region.
- Page 30, 13th line from top, for *dianthisflora* read *dianthisflora*.
- Page 30, 19th line from top, for *Calandrina menziesii* read *Calandrinia Menziesii*.
- Page 30, 16th line from bottom, for *missourituris* read *missouriensis*.
- Page 30, 15th line from bottom, for *Bylovii* read *Biglovii*.
- Page 30, 7th line from bottom, for *Arctostaphylos* read *Photinia*.
- Page 30, 2nd line from bottom, for *Athagalus* read *Astragalus*.
- Page 31, 3d line from top, for *lycopnides* read *lycopnoides*.
- Page 31, 6th line from top, for though not absent read though not abundant.
- Page 31, 14th line from bottom, for *Eschscholtzia California* read *Eschscholtzia Californica*.
- Page 32, 9th line from top, for *An Oceanica* tobacco tree read *A tobacco tree, Nicotiana*.

## SAN DIEGO,

### ITS CLIMATE, RESOURCES, AND COMMERCIAL IMPORTANCE.

THE public is often misled with regard to a new country, by accounts of the tourist, whose vision was dazzled by its beauties, or clouded by prevailing shadows, during a visit of only a few inauspicious days.

The picture drawn is seldom accurate, but is usually brightened and warmed by the glow of generous gratitude to its people, or is clouded and made cold and barren by unfavorable influences affecting the author's mind. Other false pictures are sometimes drawn by jealous and adversely interested parties, many of whom have never seen, and are profoundly ignorant of, the object of their jealousy.

These descriptions are read and heard with more or less faith in the integrity of their authors, but always with enough to enable them, in some degree, to impress the mind.

San Diego has not escaped detraction from these sources, but has been—is still—the subject of persistent misrepresentation—misrepresentation often so flagrant as to be suggestive of adverse interest.

To counteract these misrepresentations, the Chamber of Commerce of the city of San Diego publish this little pamphlet, by which they propose to represent to the public the real truth relative to the condition, and prospects, and the peculiar characteristics of their flourishing young city and the adjacent country, as fully as is practicable in a paper such as this. They are confident that investigation and the lapse of time will demonstrate that the representation is not overdrawn.

San Diego, occupying the most southwestern portion of the United States, has, at long intervals, attracted public attention; but not until within the last five years has it secured and held the attention of a large portion of the people of the United States.

Passing through our southern Golden Gate into the Bay of San Diego, on one of the Panama or coast steamers, the visitor is forcibly impressed with the safety of the entrance, and the perfect protection afforded the harbor by Nature's safe-guard thrown around its waters.

Stretching from the entrance to the head of the bay, a distance of about thirteen miles, is a peninsula from one fourth to one mile in width, which forms a perfect break-water; and, with a lofty range of hills on the opposite side, which serves as a windbreak, the waters of the bay defy the ocean winds to ruffle their mirror-like surface.

Prof. George Davidson, Assistant United States Coast Survey, in charge of Pacific Coast, thus speaks of San Diego Bay, from personal examination:

"There is a depth of twenty-two feet of water on the bar, at the mean of the lowest low-waters. The average size and fall of tides is three feet seven inches. The average rise and fall of spring tides is five feet. The average rise and fall of neap tides is two feet three inches. The width of the channel over the bar, carrying the foregoing depth, is about 600 yards; the distance across the bar, between 100 and 200 yards.

"The depth of water on San Diego bar compares favorably with the depth on the entrances to Atlantic harbors. Boston has about 18 feet; New York, 23½; Philadelphia, 18½; Charleston, Mobile and New Orleans, less than 18 feet.

"There is a noteworthy fact in relation to the depth of water on the bar of San Diego Bay; a comparison of the surveys of Dalrymple, in 1782, and Vancouver, in 1793, and the last United States Coast Survey examinations, shows no change to have taken place since the former date.

"The bottom is uniformly good. No rocks have been discovered in the bay or approaches. The position of San Diego Bay, with relation to the coast, and of the bar, with relation to Point Loma, is such that there is rarely much

swell on the bar; as a rule, there is less swell on this bar than on any other bar on the Pacific Coast.

"There is less rain, fog, and thick haze, and more clear weather in this vicinity, than at all points to the northward, and the entrance is less difficult to make and enter on that account."

Testimony from such authority is indisputable. There is scarcely a doubt remaining in the minds of those who are acquainted with this incomparable harbor, as to its availability for the demands of a large commerce. During the most violent winds ever experienced here, vessels may ride at anchor in safety in any portion of the harbor. The anchorage is good at all points of the bay.

These facts are becoming more generally known and recognized, and only time is needed to extend a knowledge of the advantages here given to every portion of the civilized world.

If, to the visitor, the harbor is a subject of admiration and surprise, equally so is the young city spread out like a picture on its northeastern margin.

The Franciscan Missionary Fathers, more than a hundred years ago, appreciated this location to an extent commensurate with their wants, and established the Pueblo of San Diego, and founded the ancient town, now known as Old Town. Its growth was naturally slow from lack of enterprise; and, although it possessed many advantages, it was not until Americans began to settle here, that it became a place of much life. Being too far from the harbor to become in itself an important commercial point, those who came later remedied the fault by building on the bay the beautiful new town, which is now recognized in common parlance as San Diego.

The nucleus of business has been transferred to the latter place, which, from constant accessions of business men, is making rapid strides in growth, and the infant city of only five years bids fair to surpass in importance many which have been building during the past two decades.

San Diego is the seat of the county government, and unlike most towns rapidly built in new countries, has substantial improvements, which betoken permanence and

prosperity. Her hotels, churches, banks, market house, elegant private residences, and fine gardens—photographic views of some of which accompany this pamphlet—would seem to indicate a growth of many years; and the most casual observer would at once, and rightly, conclude that men of means, foresight, and taste, had undertaken the task of building a city that should be beautiful and enduring.

As an index to the character of the people who have been attracted hither, it may be said to their praise that they support two daily and two weekly newspapers—the *World* and the *Union*—a surprising fact in the history of a town so young. Both papers are ably conducted, and form an important link in the chain that connects this remote corner of the Union with its more developed sections.

Those wishing to settle in this locality can be assured that to a remarkable degree people of refinement and intelligence are making this their home. Also that good schools and abundant facilities for improvement and enjoyment, socially, intellectually, and religiously, may be had here.

The city is now supplied with an abundance of excellent water, obtained from an artesian well. The proprietors are engaged in constructing reservoirs with a capacity of one million of gallons, and are confident that the supply of water is amply sufficient for the demands of a city of thirty thousand inhabitants.

The population of the city of San Diego is about three thousand, mostly Americans, who have sought this locality for its health-giving climate and the near prospect of a large commercial town. The population of the county may be safely set down at nine thousand.

Adjacent to the city, and adjoining its lands on the south, is the pleasant little town of National City. It is a portion of the Rancho de la Nacion, which has a frontage of six miles on the bay. The population is not numerous, but is steadily increasing. Here are an excellent wharf, stores, post-office, public school, fine residences, and a large number of vegetable and fruit gardens and nurseries.

The people are mostly engaged in agriculture and horticulture, and by their well-directed efforts in these branches

have proved that San Diego's soil is unsurpassed in fertility and adaptability to northern and semi-tropical productions.

All the travel *via* Fort Yuma from Arizona and New Mexico passes through National City.

It is confidently believed that in a few years hence one great city will extend for miles along the bay, including what is now National City and San Diego. From the entrance to the head of the bay there is presented unquestionably the finest site on which a city was ever built. For the whole distance of thirteen miles the rise is so gradual that the most perfect grade and drainage can be secured with trifling cost.

### COMMERCE.

As regards facilities for commerce, San Diego stands pre-eminent among the shipping points of the world, and must eventually take a position which will entitle it to the earnest attention of shippers of all countries. Lying as it does at the gateway of nations, and having already attracted the notice of commercial men, it is impossible that it can ever retrograde or be again neglected.

Hon. R. C. McCormick, of Arizona, than whom no one is better qualified for passing an opinion, in an able speech in the House of Representatives in 1871, said :

"San Diego, fixed by the bill (Texas & Pacific Railway) as the western terminus of the road, is situated upon a bay second only in size to San Francisco, and several hundred miles more directly in the track of vessels from China, Japan, and the Sandwich Islands, with a harbor, the grandeur, beauty, and excellence of which it would be difficult to exaggerate. The Texas & Pacific Railway is the shortest route over American soil, connecting the Atlantic, the Gulf of Mexico and the valley of the Mississippi with the Pacific."

In proof of this statement, we submit the following figures on the same authority :

New York to San Francisco, central route.....	3,283 miles.
New York to San Francisco, southern route.....	3,359 "
Difference in favor of central route.....	76 "

Charleston to San Francisco, by central route.....	3,227 miles.
Charleston to San Francisco, by southern route.....	2,974 "
Difference in favor of southern route.....	253 "
New Orleans to San Francisco, central route.....	3,107 miles.
New Orleans to San Francisco, southern route.....	2,426 "
Difference in favor of southern route.....	681 "

San Diego, as the great commercial center of the eastern and western continents, is nearer to New York than San Francisco by 423 miles; to Charleston by 750 miles; to New Orleans by 1,200 miles; and 500 miles nearer to China, Japan and the South Pacific Islands.

A road called the Southern Pacific of California is contemplated, running from San Francisco to Fort Yuma, to connect with the Texas & Pacific Railroad; the length of the proposed road being 750 miles.

The common average of freight per ton being four dollars per hundred miles, one ton of freight over this road, from San Francisco to Fort Yuma, would cost thirty dollars. The same amount shipped by water to San Diego costs four dollars per ton; thence over the Texas and Pacific road to Fort Yuma, a distance of 270 miles, at four dollars per ton per hundred miles, would amount to \$10.80, making \$14.80 by the way of San Diego, leaving a balance of \$15.20 per ton in favor of this as a shipping point.

Goods destined for the eastern cities, shipped to San Diego from China and Japan, would be conveyed by this route at the still further reduction of four dollars per ton.

Goods from China and Japan destined for Europe, now being shipped by way of San Francisco by rail, over the Central route, via New York, a distance of 3,400 miles, could, if shipped to San Diego, be landed at Galveston or New Orleans, over the Texas and Pacific road, saving fourteen hundred miles by rail; then shipped to Europe by steamer at about the same expense from Galveston or New Orleans, as from New York.

A glance at the map of our country will satisfy all that San Diego Bay is the natural outlet for Southern California, Arizona, Utah, Nevada, Southwestern Colorado, and Western New Mexico; and that the richest mineral region on the continent, New Mexico, Arizona, and the near Mexican

States of Lower California, Chihuahua, and Sonora will pay their tribute of gold and silver to San Diego's commerce. This traffic in ores, bullion, miners' supplies, and other merchandise will prove immense, when facilities shall have become available for shipment without the enormous expense now incurred.

In view of these statements, which are believed to be patent to an unprejudiced mind, together with the fact that the Texas and Pacific Railroad can never be obstructed by ice and snow to delay the delivery of goods, it is not the deduction of a visionary to suppose that San Diego will, in the lifetime of her middle-aged inhabitants, monopolize the trade, not only of the rich agricultural and mineral country tributary to her, but also of the great Asiatic nations, and the South Pacific Islands.

The following extract from the report, for 1873, of the President of the Chamber of Commerce, is but the dim foreshadowing of San Diego's future commercial importance:

"Notwithstanding the drought of last season, many farmers of this country raised sufficient grain to sow their own fields, and a surplus for the market; and to-day we have a larger number of acres under cultivation than ever before, with a better prospect of a large yield. Should the season continue favorable, we will have over one million dollar's worth of wheat alone for foreign markets.

"During the past year a superior quality of granite has been discovered within eleven miles of San Diego. Aside from what has been used in our own city, a large quantity has been shipped to San Francisco, on a contract for one thousand tons. Schooners arriving in our port in future will have no difficulty in obtaining back freight.

"There have arrived in our port the past year 187 vessels of all classes.

"The total number of tons of freight landed at San Diego, exclusive of lumber, is 16,025 tons; of lumber, 6,015,185 feet; railroad ties, 20,000; lath and shakes, 749,000; shingles, 1,403,750; split posts, 1,266. The Texas and Pacific Railway Company shipped 1,670,000 feet of lumber and 20,000 ties, included in the above amounts.

"The principal articles exported during the past year were wool, honey, hides, and whale oil, as follows: 599,756 pounds of wool; 116,000 pounds of honey; 5,344 hides; 40,200 gallons of whale oil."

### MINERAL RESOURCES.

The mineral resources of San Diego county alone bid fair to become a very important feature in her industries. The Julian mines, sixty miles from the bay, accessible by stage, or private conveyance, through a delightfully romantic section of country, were discovered five years ago. Already their yield has proved highly remunerative to their owners, given employment to a large number of laborers, and has built up a town of considerable importance, though owing to a question of title, comparatively little has yet been done. The locators of the mines have at length triumphed; the cloud which has hovered over them, and retarded the work, has been removed, and renewed energy and outside capital will give the work an impetus unknown in the past.

The shipment of bullion from the Julian mines in 1872 was \$488,670; from Lower California, \$50,775, making a total of \$539,445 shipped from San Diego.

The recently discovered and promising Japa and Bladen mines, with increased facilities for work at Julian and San Rafael, present a most gratifying outlook, and indicate golden harvest in the future.

### AGRICULTURE.

The eastern farmer, if wedded to the theories of his own latitude, or trained in the unprogressive school of one method for all places, will naturally make a failure here, where all the conditions are new to him. But to those who are ready to accept new theories, with new conditions, there are few places that promise greater returns from the soil, or a better prospect of a future independence.

This county, in common with the whole of Southern California, is, at long intervals, subject to drought; but there is no year when the rain-fall in the interior is not sufficient to

produce fair crops. The amount of rain at San Diego Bay is not a criterion for the whole county. The rain-fall at San Diego from December, 1872, to April, 1873, was 6.14 inches. During the same time at Julian it was 16.69 inches, and at Milquatay, sixty miles from the bay, it was 9.59 inches. From November, 1873, to April, 1874, the rain-fall at San Diego was 14.27 inches; during the same period it was at Milquatay 30.39 inches. At Julian the rain-gauge was abandoned, but a large quantity of rain fell.

Deep plowing and frequent stirring of the soil in winter cause the earth to retain its moisture much longer than when carelessly and sparingly plowed; consequently, with proper cultivation, less rain is required to secure a crop.

Plowing, sowing and planting are done from November to April. The early spring presents a most beautiful picture—the earth is covered with a carpet of luxuriant grasses, and profusely ornamented with flowers of every hue. Fields of waving grain and vegetables of every kind gladden the heart of the laborer, and repay him for his winter's toil.

Nor does the season of planting and harvesting end with the winter's rains. Almost every day during the entire year some fresh garden product may be found on our tables. During the summer months, however, irrigation must be resorted to, to produce vegetables successfully. This may be readily done; for however severe the drought, the underground streams have never been known to fail. The water is brought to the surface by pumps, worked by steam, or by windmills from wells from ten to one hundred feet in depth.

The temperature of the water is about the same as that of rain; hence it is admirably adapted to irrigation. One well, with a fair supply of water, will irrigate ten acres of fruit trees, and the labor may be easily performed by one man.

Irrigation has a questionable sound to those who live in countries where rain is abundant during the summer months; but a residence of a few years in a climate so delightful, and rendered healthful by its very dryness, will dispel all antipathy to artificial watering.

One important fact in favor of San Diego, and one not to be ignored, is, while we have, as a rule, less rain than any

other portion of the State, less is required to mature a crop. Ten inches of rain, if falling at the needed time, will carry crops of grain and potatoes as unfailingly through, as twenty inches in the upper counties.

Irrigation was in favor in eastern nations centuries ago, and is said to have been the first successful application of science to agriculture. It has continued in favor, since its adoption by the ancient Egyptians and Assyrians, to the present time, on the Mediterranean, in Italy, France, Spain, Germany, and other European countries where the finest varieties of fruit are grown.

We pay annually vast sums of money to foreign nations for fruits easily grown in San Diego, where the soil, climate and dry atmosphere are the principal requisites of success. More than half a million dollars each year are sent to Turkey for figs; one and a half million to Spain for raisins; our importation of wine amounts to several millions yearly. One million is sent abroad for oranges; a million for olive oil, besides large sums for table olives; while nuts of all kinds, limes, lemons, and other semi-tropical fruits involve no small outlay of expense, though all these fruits may be successfully grown in our own county.

We have arable land sufficient to warrant us in trying so magnificent an experiment as supplying the United States with fruits for which we send abroad. San Diego county contains eight million and five hundred thousand acres, of which two and one half million are adapted to farming and fruit growing; and two million and five hundred thousand acres of desert land, so called, rich in quality, which, with the application of water by some artificial process, by artesian wells or flooding from the Colorado river, may be made extremely productive.

California, so justly famed for its delicious grapes, has no county that produces them in greater perfection than San Diego. The finest varieties, raised in hot houses in other countries, produce here abundantly the most delicious and largest fruit in the shortest space of time. Our hill-sides may be converted into the finest vineyards on earth. The rich, virgin soil needs no dressing to render it productive. The soil and climate are perfectly adapted to vine

culture, and there is no reason why the manufacture of wine and raisins may not form an important branch of industry. Experience and energy will insure success.

Almonds and English walnuts are quite at home in this latitude; are rapid growers, and commence bearing, the former the third year from planting, and the latter the seventh or eighth. They command a high price, and bear transportation.

Oranges, lemons, limes, and citrons, bid fair to rival in growth those of our sister counties. Those planted some years ago produce equally as well as those of Los Angeles; and those planted during the past four years are making rapid and vigorous growth. The frost may touch their tender leaves in the valleys, but not to produce serious injury; while on the mesa or table land, they are quite safe.

The olive was a favorite tree with the far-seeing Missionary Fathers who founded the Missions in Southern California, and with good reason. Beautiful olive groves may be seen at all the Missions; that at San Diego Mission surpassing all the others in productiveness, and size, and quality, of the fruit. They were planted seventy-five years ago; are still thrifty and very prolific, yielding their owners a handsome yearly income. There is no portion of the United States so well adapted to the culture of this valuable fruit as this county, and it is gratifying to see so much attention already directed to the laudable enterprise of planting olive orchards. Several thousand cuttings have been planted this year in the immediate vicinity of the bay. A few hundred acres of olive trees scattered over San Diego's suburban hills would change the aspect of the country from barrenness to a perpetual verdure, as charming as the evergreen tropics. Declivities near the sea are the natural homes of the olive. The tree is a handsome evergreen, and affords the double purpose of ornament and profit. It commences bearing in three years, and in six years will yield from eight to ten gallons of olives yearly. A full grown tree will produce from fifty to seventy-five gallons. Olive oil sells readily at \$4.50 per gallon, the pickled fruit seventy-five cents per gallon. Visitors from Italy and France have eaten San Diego's olives, and tasted the oil,



and pronounce them at least equal to the best in those countries.

One planting suffices for generations; their fruitfulness is unfailing, and time increases their productiveness.

One tree near Nice is said to have been recorded in 1516, as one of the oldest trees in the neighborhood. Others have been known to live six or seven hundred years.

Another important fruit, one that requires less labor than any other to cultivate, is the fig. It gives a quicker return than the olive, the cuttings often bearing fruit the same year they are taken from the tree. In San Diego two crops, and sometimes three, are taken from the same tree in a season. The fruit is of a superior size and flavor. The expense of planting a fig orchard is very small, and the investment a profitable one.

No atmosphere could be better adapted to the curing of figs, grapes, and all other fruits; and whoever makes this a specialty, will be abundantly rewarded.

The smaller fruits, especially the strawberry, are marvelous bearers in our soil. Three crops of strawberries are taken in a year from the vines, the season continuing from March to December, and a few ripening through the winter. A small plat of ground devoted to this delicious fruit gives pleasant and profitable employment to those unable to engage in more laborious work. This fruit requires a large quantity of water, and can only be successfully grown where it can be applied when needed.

### OTHER BRANCHES OF INDUSTRY.

Probably as many branches of industry may be as advantageously pursued in San Diego as can be in any other place in America. From what has been accomplished in the last five years, we are sure of the possibilities of the future. Time, capital and energy, if wisely applied, will produce comforts and luxuries not excelled by any portion of the earth.

Sericulture, without doubt, might become a leading feature of our industries. The mulberry tree grows with little care, and the even temperature is precisely what the

silkworm must have to ensure its thrifty growth. Small experiments in silkworm raising have been made with good prospect of success.

When those who understand the business make a beginning in this important work, it will have a tendency to attract the attention and presence of the silk-growing population of Europe.

Diseases which during the last few years have infected the silkworm of France, should stimulate those who have a knowledge of the work to engage in it here. A writer on sericulture says: "The whole secret in raising the silkworm consists in securing for it warmth, dryness, plenty of proper food, and pure air. The mulberry tree, whose leaves constitute the food of the silkworm, requires for its perfect growth long continued, dry, and warm weather, and suffers in the rainy seasons of England and France. One mulberry tree, it is computed, will feed as many silkworms as would produce annually seven pounds of silk."

Europeans import their silkworm eggs from China and Japan. Cannot San Diego, at the generous figure paid for them in San Francisco, (four dollars per ounce,) contribute her part toward supplying the European market?

This county is already famous for its delicious honey. It commands the highest price in market, both in California and at the East. The increase in exportation was, in 1873, one hundred thousand pounds in excess of the preceding year. There is no limit in this land of flowers to the number of bees that may be made profitable. A large proportion of our farmers are engaging in this lucrative business, and others making it a specialty. San Diego is second, and will soon rank first, among the honey-producing counties of the State.

Sheep raising is beginning to command special attention. Large flocks of sheep range over the hills and through the valleys, kept in excellent condition during the year by fresh, green feed in winter, and dry, nutritious grasses in summer. Our winters are so mild that few young die from exposure, and with a shelter during the heaviest storms, the number would be greatly reduced.

The increasing business of wool growing creates a demand

for the home manufacture of woolen goods. Our wool is sent to the eastern markets, and woolen goods brought back in return, at the cost of shipping both ways, while we have the needed facilities for manufacturing in our own county. Our last year's export of wool was six hundred thousand pounds, which in the years to come will be greatly increased, the manufacture of which in our own county invites eastern capitalists hither.

The cost of running machinery is but little greater than at the East, while labor can be as cheaply obtained, and wool made cheaper.

The soil is congenial to the sugar beet, and with proper culture produces abundant crops, which might be converted into sugar, thus giving us another staple commodity for export.

Salt is somewhat extensively manufactured from the waters of the bay, and the business may be indefinitely extended.

Hides, which the county supplies in large quantities, may be profitably tanned here, and excellent leather, in lieu of raw hides, shipped to other markets.

In short, there seems no limit to our natural resources. New enterprises are constantly suggested, and whoever improves the golden opportunities here offered does himself and the public an immense benefit.

### HEALTH RESORT.

As a national sanitarium, San Diego is unsurpassed. Hundreds of invalids have been restored to health, or greatly benefitted, by our health-giving climate.

The most casual observer will perceive on the trip from San Francisco to San Diego by water, after passing Point Conception, a most agreeable change from cold and fog to a soft and balmy atmosphere. The change becomes more apparent as we pass down the coast, until we reach San Diego, where the perfection of climatic conditions is attained.

The remarkable equability of the temperature may be perceived by a reference to the tables prepared for publication by the observer of the U. S. Signal Service at San Diego. These tables may be found in the Appendix, to which the

reader is referred. The importance of these tables, especially to physicians and invalids, cannot be overestimated. A careful perusal and study of them cannot fail to convince the reader that the world cannot produce a country with a more even temperature, nor a place where the invalid is less liable to be chilled by wintry frosts, or debilitated by summer heat.

A daily sea breeze tempers the summer air, and the nights are always agreeably cool. It will be observed by reference to the annual table of temperature, etc., for 1873, found in the Appendix, that the prevailing winds in this locality blow from the west and northwest; but this information does not convey a true knowledge of the perfect law or system of our daily ocean and land breezes.

From early morning until 8 or 9 A. M. each day, the velocity of the wind does not exceed two miles per hour, and its direction is variable. As the sun's rays become more vertical, increasing the heat of the earth, which is communicated to the superincumbent atmosphere, gradually expanding it, the air over the water, (being much cooler than that over the land), obeying a familiar law of nature, flows to the heated land. As the temperature of the land increases so does the velocity of the wind from the ocean to the land increase, until the greatest heat of the day is attained. This occurs about 2 P. M. The mean of the wind's velocity at this time is about ten miles per hour.

The same law in an inverse order is observed as the sun declines. The regularity of this interchange can be relied upon with nearly the same confidence as the motion of the earth in her daily revolution. This regular ocean breeze each day is the prime cause of our even temperature and equable climate. After sunset the earth soon radiates much of the heat received from the sun during the day, and by 9 P. M. the atmosphere over the land is cooler than the air over the ocean; so that during the night the system of winds is reversed. There are not a dozen days in the year that fog can be seen on land after 9 o'clock in the morning; and it is rarely seen previous to that hour.

The late Prof. Agassiz, whose testimony is worthy of the highest consideration, after spending some weeks in San

Diego, thus expressed his opinion with regard to the climate, at a public meeting:

"There is one advantage that I, as a scientific man, may lay more stress upon than is necessary; but I hardly think it possible. It is the question of latitude. You are here upon the thirty-second parallel, beyond the reach of the severe winters of the higher latitudes. This is your capital, and it is worth millions to you."

A *Herald of Health* of a year ago contains an article entitled "California as a Residence for Invalids," from the graceful pen of C. M. Plumb, a gentleman of culture and extensive travel.

The summing up of his essay, in which he gives San Diego the preference to all other places as a health resort, is so truthful and suggestive that it is worthy of a place here. He says:

"*A Dry, Healthful Atmosphere.*—San Diego has ten inches less rain-fall than Marseilles, fourteen less than Genoa, thirty-three less than New York. Although upon the coast, the relative moisture in the atmosphere is small, and the occasional fogs are dry, like those of Newport.

"*An Equal Temperature.*—The sudden changes so common elsewhere, and so trying to sensitive organizations, are here absolutely unknown. The record of an entire month, June, has given a range of only twelve degrees. Between the mean of January and July, there is at San Diego a range of twenty-one degrees, at Mentone thirty-three, Marseilles thirty-two, and New York forty-two degrees.

"*Absence of Extremes.*—Neither winter's cold nor summer's heat prevail in this peerless clime. The entire range of the thermometer is but fifty degrees; from thirty-eight to eighty-eight; instead of a variation of one hundred and fourteen degrees, as in New York. A similar degree of heat is also far less oppressively felt than at the East.

"*Salubrious Sea-breezes.*—South of Point Conception, the winds of the Pacific are mild and genial. They prevail from nine in the morning to four in the evening, rendering the air delightfully cool.

"*Freedom from Damp Fogs and Chilly Winds.*—The cold,

penetrating fogs of the northern coast do not visit this region; and the sea-breezes are rarely chilling in their effect upon the most delicate.

"*A Sunny Sky—few Cloudy Days.*—The 'sun cure' is open to patients nearly every day in the year; and one can hardly over estimate the healthful, electrical influence of this upon residents.

"*Invariably Cool Nights.*—This delicious feature is a sure preventive of epidemics.

"*Absolute Freedom from Miasma.*—The dry atmosphere cures meat before decomposition sets in, and quickly dries up decaying vegetables, and there are no swamps.

"*A Deep Fertile Soil with no Mud.*—Roots have been known to descend in this unfathomable soil thirty feet. Either surface or sub-soil hardens quickly, making roads equal to the macadamized.

"*Luxuriant Semi-tropical Fruitage,* affording abundant provision of health-giving food."

A most laudable enterprise, and one that must insure a revenue to those who engage in it, is the erection of a Hygienic Home. If handsomely built, furnished and surrounded with the beauties and embellishments this place so lavishly offers; if skilled physicians and nurses are secured, such a home would, in a few years, become famous throughout the civilized world.

Florida, which affords a winter retreat for so many northern invalids, lacks our uniform temperature, and her summers are hot and unhealthy. Here we have no debilitating summer heat to counteract by winter frosts. The days, from January to December, are so uniform, one feels a constant invigoration. While Eastern friends search in vain for a cool apartment in which to repose during the nights of the hot summer months, we here sleep under a warm blanket, and awake refreshed to inhale the delightfully cool morning air.

While Eastern invalids, exhausted by the day's heat, are fanned through the sultry night to furnish a meagre supply of fresh air, San Diego's sick acquire new life by inhaling the cooling atmosphere of a summer night.

The proportion of deaths to the population is much less.

in San Diego than any other city in the Union; while a large percentage of those who have died here in the past four years, are those who came in advanced stages of consumption, when too late to rally from the effects of long journeys, anxiety and weakness. (See Mortuary Table in appendix.)

### MISCELLANEOUS.

An objectionable feature of new countries, from which San Diego is happily exempt, is the high cost of provisions and other articles of general use. Breadstuffs and meat are cheaper than at the east, and groceries quite as cheap. Fuel is higher than in wooded countries, but this is more than balanced by the small quantity necessary to be used. Very little, except for cooking, is required. Fire, mornings and evenings, is often agreeable in the winter, but seldom needed during the day at any season of the year.

Merchants may now ship their goods direct from New York via Panama, thus saving the extra expense of reshipment from San Francisco, saving the profits made by San Francisco wholesale dealers, and thereby materially reducing the cost of living.

Fare between San Diego and San Francisco is very low, owing to an opposition line of steamers. From four to ten dollars for first class fare, a distance of 456 miles. Freight is \$2.50 per ton.

Lumber for building purposes can be laid down here from Puget Sound and Humboldt Bay, for from twenty-five to forty dollars per thousand.

Vegetables may be had at all seasons of the year, by irrigating during the summer months.

The bay and ocean, immediately outside, abound in fish of large size and most delicate flavor.

Wild geese and ducks are plentiful in winter; deer, rabbits and quail are found in the foot-hills.

Our natural roads are unsurpassed. Those which have been longest traveled by the old Spanish population are so solid and smooth that a horse's hoof leaves no impression upon them.

Tornadoes or other violent or destructive storms never

visit this place, and earthquakes are of very rare occurrence. Scarcely a tremor has been felt for many years.

An erroneous opinion has prevailed abroad that "going to California" was the end of labor; that when that western goal was reached, golden eagles were waiting for empty purses, and the almost spontaneous fruits of the earth were to be had for the gathering. This is a mistake as regards this section, as well as all other portions of the State. It requires energy, skill, and wisely applied means to obtain a livelihood and secure wealth, here as elsewhere. Those who possess most of these will ultimately prove most successful.

We do not advise healthful persons, who are comfortably settled in other homes, to dispose of them, with a view of making new ones here, without having previously visited this country and formed their own opinions of it, based on personal knowledge. But we will be pleased with the advent of all good people who shall be attracted to this delightful summer land of sunshine and flowers, and will heartily extend to them the welcoming hand of friendship and good will.

[From the "San Diego Union."]

The idea appears to be generally prevalent at the East that San Diego, lying so far south, must necessarily be an excessively hot place in the summer months. Our Eastern visitors are invariably astonished when we refer them to the official records of our temperature made by the United States Signal Service Observer at this station. These records show that only once during the year 1873, the thermometer reached 85°, and that was in November, and only once it went as low as 37°, which was in February. The maximum and minimum heat in each of the twelve months is shown by the following figures, which represent degrees: In January, 74-43; February, 77-37; March, 72-40; April, 82-42; May, 75-52; June, 75-58; July, 77-60; August, 78-63; September, 82-55; October, 76-49; November, 85-49; December, 68-44. If a less variable and more completely temperate climate can be found on the face of the earth, we know not where it is. It is certainly not in the

United States. The entire number of degrees range of the thermometer in the several months, commencing with January, was only 32, 40, 32, 40, 23, 17, 17, 15, 27, 27, 36, and 24.

But the uniformity of temperature in San Diego, unparalleled elsewhere, is more fully shown by the observations taken at three different hours each day. By those taken at five minutes before five o'clock in the morning, the mean number of degrees for each month was as follows: for January, 51; February, 48; March, 52; April, 52; May, 56; June, 59; July, 63; August, 65; September, 67; October, 57; November, 56; December, 49. It thus appears that, at this hour of the day, the difference between the heat of one month and that of the month following was once, nothing; once, only one degree; twice, two degrees; twice three degrees; three times, four degrees; only once, seven degrees; and only once, ten degrees.

The second time of observation was in the early part of the afternoon—at five minutes before two o'clock. It is then when we look for the mercury to reach its greatest height. The sun is nearly over us, and he has been imparting heat to the earth during all the morning and noon. Now what do the official records show in regard to this hottest portion of the day? The mean of the daily observations in January was 64; in February, 59; March, 62; April, 65; May, 65; June, 67; July, 74; August, 74; September, 70; October, 68; November, 66; December, 60. The monthly means of the daily observations taken at twenty minutes after eight o'clock in the evening were, for the several months respectively, beginning with January, 55, 53, 56, 57, 50, 62, 64, 68, 66, 61, 59, 54.

In addition to these monthly means, we might present the daily observations themselves, which show that not only the *mean* temperature of any one month at a given hour is very nearly the same as that of every other month at the same hour, but also that the several days during each month scarcely differ in temperature one from the other. But such an exhibit for the whole year would make the present article too long; so we give only the afternoon observations, during June and December, these months being fair samples

of all the others. The June records show the degrees of heat, at five minutes before two o'clock, to be 72, 66, 65, 65, 68, 66, 66, 67, 67, 66, 67, 64, 67, 67, 65, 69, 70, 67, 67, 70, 68, 67, 67, 67, 68, 70, 75, 73, 71, 67. The December records show 62, 57, 59, 58, 61, 58, 59, 60, 58, 56, 56, 57, 60, 61, 61, 59, 59, 64, 61, 60, 59, 58, 62, 67, 67, 68, 68, 66, 63, 61, 59.

Such are our summers and such our winters. The same clothing is worn throughout the year. No thin suit is required on account of excessive heat; and no heavy overcoat because of excessive cold. The sweltering nights of June and July in New York and Philadelphia are unknown here. The sleeper always needs a blanket to cover him, and he awakens the next morning refreshed by a whole night's sleep. In December and January the contrast between here and New York is equally great. A fire in the sitting-room is seldom required for comfort; and, at night, a feather bed and a heavy padded covering would be positively uncomfortable.

With the fullest confidence we place San Diego, for climate, before the rest of the world. The record of temperature given in this article accounts for the very favorable showing in regard to health furnished by the mortuary statistics for the county during the last year. Only fifty-three deaths from a population of nine thousand, or a trifle *less than six for one thousand!* and thirteen of the fifty-three were consumptives from abroad who came here diseased beyond recovery. In 1872, the number of deaths per thousand inhabitants in other places was as follows: In New York, 32.64; Philadelphia, 26.28; Brooklyn, 30; St. Louis, 23.02; Chicago, 27.60; Baltimore, 25.94; Boston, 30.53; Cincinnati, 20.46; New Orleans, 30.61; San Francisco, 17.50. With these San Diego stands out in marvelous contrast, at 5.88. To this wonderful natural sanitarium we specially invite such as have a predisposition to pulmonary disease, not yet fully developed.

## AMONG THE WILD FLOWERS OF SAN DIEGO.

BY JAMES S. LIPPINCOTT.

The vegetation of San Diego presents an extraordinary appearance to the visitor from the Northern and Eastern States, and, if he be possessed of scientific proclivities, will prove exceedingly interesting. Should he arrive in December, his attention will be early arrested by the peculiar mildness and the even range of temperature, which permits the continued blooming of many plants, and the appearance of flowers, whose congeners he is accustomed to find greeting the early spring in his Eastern home. The equable character of the temperature through December, January and February is strikingly expressed in the stagnant condition of sundry incipient flowers, which, having advanced to the condition of colored buds, await through the three months named for a few warmer days in which to evolve their colors. One of the most remarkable of these is a caper-like plant (*Isomeris arborescens*), which early in December exhibits a sparse bloom, and continues to labor under the difficulties of its condition, making no advance until March, when a few degrees of additional heat open its fine, yellow flowers, and soon its large inflated brown seed-vessels appear at the extremity of the long protruded pistils.

The earliest plant which appears upon the lower bench, or mesa, is a saxifrage. This, like its Eastern sisters, leads the floral throng, and blooms in December; but, unlike them, enjoys the advantage of a bulbous root—a necessary aid for preserving its life during the long droughts of summer. Drawing sustenance from a depth of from four to six inches, it sends up its long, slender scape, develops one simple leaf, and a pale, diminutive flower, but, anchored below, resists the unfavorable agencies that would destroy

every Eastern saxifrage, though accustomed to meagre fare, and taking fast hold in "the clefts of the rocks." In the sunny exposure in the arroyos occurs a shrub, apparently an *Eriogonum*, which, in December, adorns its fine cut foliage with heads of small, white flowers. For many weeks no others, except the above named, are conspicuous in uncultivated grounds. Soon a bright yellow flower, probably a *Gaura*, hugs the soil, which it adorns with its bright stars, and a yellow violet, its petals shaded on the back with a rich brown, and its throat marked with dark lines, throws up its long peduncles from its leafy prostrate stem. Over the stumps of laurel (*Lithraealaurina*) soon begin to trail the long green stems of the mandrake (*Cucumis perennis*), and to hang out its racemes of white flowers. This extraordinary plant is possessed of a vast storehouse of supplies, and appears to be capable of enduring a siege through years of drought. Its corm is a solid fleshy mass, often exceeding the size of a bushel measure, and to the taste, intensely bitter. From this mass the long stems arise annually, and adorn large clumps of shrubbery with their green palmate leafage, and on the pistillate plant are developed, in March, the green spring cucumbers.

A few days bringing increase of heat appear, and life leaps upward, bloom and beauty increase around us, and the purple blossoms of the *Alfilerilla* (pronounced Elfillaree), Spanish *Alfiler* (a pin), the clover of this region (*Erodium maschatum*) appear. This plant presents the aspect of a flattened tuft of fine cut leaves pressed to the ground; but where the soil is good, and it can obtain an undisturbed growth, it produces a heavy crop of leafage, which probably should prove as valuable for hay as it does for pasturage. It appears to endure the drought with extraordinary persistence, and to flourish on hill-sides where the true clovers would assuredly fail for want of moisture.

It will probably surprise our Eastern friends to learn that the horses, cattle and sheep of Southern California are pastured upon geraniums; for to this order the *Erodium* belongs, being placed indeed between the geraniums and the *pelargoniums*. Intermixed with the *Alfilerilla* appear the slender succulent stems and narrow spatulate leaves of the

*Calandrina menziesii*, allied to the spring beauty of the Eastern States. This plant often spreads over wide areas, adorned by its small magenta blooms peeping from amid the bright green of its leaves, and, in favorable situations, after heavy rains, it puts on a magnificent aspect, standing a foot or more in height, and, massing its brilliant coloring, rivals the glory of a bed of portulacca, to which genus the *Calandrina* is closely allied.

As the vegetation of this region is influenced by the elevation and exposure, it may be described more clearly by watching the changes as we rise from the bay shore to the distant heights. At the lowest levels, over which the highest tides flow, *Salsola* and salt grasses appear, and on the clay soil, elevated but little above the reach of tides, the ice-plant (*Mesembryanthemum*) abounds. The leaves of this species, though rather small, are brilliant with a rich setting of gem-like vesicles filled to the utmost with saline juices, and cover the surface of the ground with their varied curving masses of green and purple, and bright with starry flowers. Many acres of fallow ground, and also gardens, are covered by this *Mesembryanthemum*, accompanied at times by another species of much more robust growth, whose leaves, twice the size of one's hand, resemble bunches of luxuriant lettuce, almost tempting the observer to gather for his palate's delectation this green herb, which certainly would need no salt in its dressing. A walk over acres of these singular plants saturates one's boot-soles, and the sportive pedestrian, with but moderate effort, may slide upon the slippery surface. Another ice-plant, producing leaves of the shape, thickness and length of one's finger, but triangular in section, abounds on the sand dunes of the neighboring isthmus of San Diego, where its long trailing stems, beset at short intervals with its unique leaves and large red-fringed radiant flowers, are interesting to the most casual and least informed observer. On the bay sides of these dunes occurs also a fine *anacardiaceous* plant, the *Styphonia integrifolia*, which, with its head of white and roseate small daphne-like, but inodorous flavor, thick coriaceous leaves and strong growth, form a highly ornamental shrub. This plant again occurs on the high mesa, near the

city, and in Paradise Valley, it becomes a tree of respectable size, as does also, to the surprise of the Northern botanists, a species of Elder (*Sambucus*), or a close ally to that genus. An ericaceous heath-like shrub is abundant on the lower levels, and has put on the thick succulent character of saline plants, though generally possessed of a dry and coriaceous leaf. This plant delights to grow upon the extreme borders of the bluffs, and to hang its stiff branches over the low clay banks that bound the bay shore.

More remote, but still not distant from the water, the lower levels are delicately tinged with the light blue flowers of a *Gilia* or *dianthiflora*, with the magenta-flamed *orthocarpus purpurascens*, allied to the *castilleja* (painted cup), sprinkled with the delicate white stars of the *Eritrichium Californicum*, a near ally of the forget-me-not (*myosotus*), and two varieties of the humble *Plantago patagonica*. Over the bright green of these bay-side pastures appear broad spreading growths of purple-fruited pepper grass (*Lepidium*), which, from a position slightly elevated, appear like cloud-shadows flecking the surface of the brighter verdure.

As we rise higher, the American Cowslip, or Pride of Ohio, or shooting stars (*Dodecatheon* of the botanist), literally the twelve gods, but wherefor is not clear, abound in favored spots, sometimes covering many square rods, and hanging their pink and white banners with a singular abandon. On some hill-sides in the Paradise Valley, four miles east of San Diego, we have seen masses of this unique and beautiful plant standing one foot in height, of extraordinary vigor, and everywhere putting on a character and coloring so diverse from the Eastern species, the *Meadia*, as to induce us to believe it really distinct.

Clumps of *Lithræa laurina*, allied to the sumac of the Eastern States, but very unlike in aspect, now appear, their feet tangled by masses of *Phacelia tanacetifolia* and mirabilis *California*, or adorned by trailing stems and broad palmate leaves of the Mandrake, which have been already referred to as among the earliest blossoms.

The alfilerilla (*Erodium moschatum*), a clover of this region, now occurs more frequently, and, in the absence of grasses, forming a thick mat, gemmed with its small pink



flowers, blooming through the winter far into the spring; and, however dwarf they may have remained through poverty of sustenance, invariably, if not too closely cropped, put on at length their obliquely-arranged tufts of crane-billed seed vessels. The long slender divisions of this crane-bill are wound spirally upon the carpophores, and, when ripe, they are still more violently twisted, perhaps by hygrometric absorption, and drawing the seed from its seat, lifts it aloft radiantly from the centre of support, and offer it a prey to the winnowing winds, which scatter it far and near. A *Elemtis*, perhaps the *Erecta anemone* of this region, lifts its white and yellow stars above the dense green around, and the lovely little *Gilia dianthiflora* spreads its carnation-colored fringed petals to our admiring gaze, covering the ground with its delicate tints of fairy beauty. A few ranunculaceous plants appear, among them a larkspur, but no showy yellow buttercups adorn the mead. Here the small *Linaria Canadensis* lifts its dark blue flowers, and the *Calandrina menziesii*, with brilliant red petals, stars the dense greenery of its surroundings, and sometimes usurps the place of the abounding affillerilla.

The caper shrub already referred to soon appears, and clumps of the finely cut leaves of the *Artimisia* become more abundant. The Spanish dagger (*Yucca filamentosa*), flat-leaved cactus or prickly pear (*Opuntia missouriensis*), and the club cactus (*Opuntia Bylovii*), and *Erioduction tomentosum* become more abundant as we leave the bay or descend into sheltered arroyas or dry water-courses. The first-named cactus rises in these protected localities, the most remarkable of which is Cholla (cactus) Valley, where they attain to the height of six feet, and form large clumps of impenetrable chapparal. In the Cholla Valley the cactus frequently gives place to abundant growths of shrubs, among which we detect an *Arctostaphylos* and a *Ceanothus Styphonia integrifolia*, *Erioduction tomentosum*, and a *Mahonia* allied to *Aquifolium*; over these frequently trail the long vine of a pea, which hangs out its grand racemes of large crimson blossoms. A brilliant purple lupine appears at the foot of stony cliffs. Pale *Athagalus*, with bladder-like legumes, occur at intervals, and a large red flowered

monkey-plant, *Mimulus*, adorns the dry arroyas; while the roadway is often lined with dense and tall growths of a bright yellow-flowered *Amsinckia lycopsoides*, which encroaches upon the wheat fields of this fertile vale. Such is the scene in March. In April new flowers appear, among which the more beautiful; though not absent, and sheltered among the bushes, are the beautiful *Collinsia bicolor*, two species of monkey-plant (*Mimulus*), one of which is the luteous, of a brilliant yellow, large and showy, and the fuchsia-flowered gooseberry, *Ribes speciosum*. The cacti do not present us with many flowers, but the *Yucca*, in favored situations, displays a magnificent mass of rich purple buds and creamy lilies, bursting into beauty from amidst its forbidding clusters of dagger-pointed leaves. On stony slopes the low spherical-spined cactus (*Echinocactus*), and the *Cereus* occasionally occur. On these middle heights above the bay the ground is often yellow with a bright *Gaura* and the yellow violet, intermingled with the pale tint of the wild onion and blue liliaceous plants, among which the *Milla capitata* is conspicuous; while composite flowers, such as *Senecio Californian* and *Pentachaeta aurea*, cover thousands of acres.

The botanist can scarcely take a step without treading upon a plant unknown to him in his eastern fields. Now he stops to gaze with admiration upon the spread of *Dodecatheons*, or to throw up his hands with delight as he pauses beside a half acre of California poppies (*Eschscholtzia Californica*), which at midday resembles beaten gold, the most brilliant and most fascinating of California flowers. Nature is here in her loveliest mood, and robed in her brightest colors. She has spread her tapestries of the magenta-colored *Castilleja* like orthocarpus, until they rival the gorgeous carpets of Persian looms, and has hung the hillside in draperies that outshine Bluff King Harry's "Field of the Cloth of Gold." The rapid growth made by its many trees planted in and around San Diego is well worthy of remark, as exhibiting promise and prophecy of the future—when this land shall be clothed with abundant arborescent verdure.

The blue gum-trees from Australia (*Eucalyptus globulus*), and the Mexican pepper-trees (*Schinus molle*), hundreds of



which have recently been planted in the streets of San Diego, and on the *mesa*, promise to become admirable ornaments to the city. The Mexican pepper-tree is peculiarly beautiful in its fine pinnate foliage, drooping gracefully, and hung with racemes of large, red currant-like fruit.

In National City, where trees were earlier planted, we were shown in the grounds of Mr. Kimball a bottle-brush acacia, which in four years has attained a diameter of nine inches, at the height of one foot from the ground. An *Oceanica* tobacco tree had in five months grown to the height of fourteen feet. Olive trees from cuttings, inserted in May, 1873, had in ten months reached the height of nine feet, and were ready to blossom. A blue gum-tree (*Eucalyptus globulus*) had in four years reached a circumference of twenty-eight inches, and stood twenty-eight feet high, fifteen feet having been removed.

At Asher's nursery a fig tree, but two years old, extended its topmost branches twelve feet, and a lemon tree, five feet high, had grown in one year from the planting of the seed.

Another blue gum, in the adjoining ground of Mr. Geo. C. Swan, in this paradise of almonds and figs, had soared in four years to forty feet, with a diameter of about one foot, and a fig tree, but four years old, had borne to its proprietor two thousand figs!

With a climate admirably adapted to the growth of trees, and the production of every semi-tropical plant, and where abundance of water can generally be commanded at moderate depths in the lower levels, what more are needed but capital, energy and enterprise, to make this southern land an earthly paradise, where, under the benign influences of free institutions, liberal culture, and a pure faith, while "every prospect pleases," man need not be vile!

silkworm must have to ensure its thrifty growth. Small experiments in silkworm raising have been made with good prospect of success.

When those who understand the business make a beginning in this important work, it will have a tendency to attract the attention and presence of the silk-growing population of Europe.

Diseases which during the last few years have infected the silkworm of France, should stimulate those who have a knowledge of the work to engage in it here. A writer on sericulture says: "The whole secret in raising the silkworm consists in securing for it warmth, dryness, plenty of proper food, and pure air. The mulberry tree, whose leaves constitute the food of the silkworm, requires for its perfect growth long continued, dry, and warm weather, and suffers in the rainy seasons of England and France. One mulberry tree, it is computed, will feed as many silkworms as would produce annually seven pounds of silk."

Europeans import their silkworm eggs from China and Japan. Cannot San Diego, at the generous figure paid for them in San Francisco, (four dollars per ounce,) contribute her part toward supplying the European market?

This county is already famous for its delicious honey. It commands the highest price in market, both in California and at the East. The increase in exportation was, in 1873, one hundred thousand pounds in excess of the preceding year. There is no limit in this land of flowers to the number of bees that may be made profitable. A large proportion of our farmers are engaging in this lucrative business, and others making it a specialty. San Diego is second, and will soon rank first, among the honey-producing counties of the State.

Sheep raising is beginning to command special attention. Large flocks of sheep range over the hills and through the valleys, kept in excellent condition during the year by fresh, green feed in winter, and dry, nutritious grasses in summer. Our winters are so mild that few young die from exposure, and with a shelter during the heaviest storms, the number would be greatly reduced.

The increasing business of wool growing creates a demand

for the home manufacture of woolen goods. Our wool is sent to the eastern markets, and woolen goods brought back in return, at the cost of shipping both ways, while we have the needed facilities for manufacturing in our own county. Our last year's export of wool was six hundred thousand pounds, which in the years to come will be greatly increased, the manufacture of which in our own county invites eastern capitalists hither.

The cost of running machinery is but little greater than at the East, while labor can be as cheaply obtained, and wool made cheaper.

The soil is congenial to the sugar beet, and with proper culture produces abundant crops, which might be converted into sugar, thus giving us another staple commodity for export.

Salt is somewhat extensively manufactured from the waters of the bay, and the business may be indefinitely extended.

Hides, which the county supplies in large quantities, may be profitably tanned here, and excellent leather, in lieu of raw hides, shipped to other markets.

In short, there seems no limit to our natural resources. New enterprises are constantly suggested, and whoever improves the golden opportunities here offered does himself and the public an immense benefit.

### HEALTH RESORT.

As a national sanitarium, San Diego is unsurpassed. Hundreds of invalids have been restored to health, or greatly benefitted, by our health-giving climate.

The most casual observer will perceive on the trip from San Francisco to San Diego by water, after passing Point Conception, a most agreeable change from cold and fog to a soft and balmy atmosphere. The change becomes more apparent as we pass down the coast, until we reach San Diego, where the perfection of climatic conditions is attained.

The remarkable equability of the temperature may be perceived by a reference to the tables prepared for publication by the observer of the U. S. Signal Service at San Diego. These tables may be found in the Appendix, to which the

reader is referred. The importance of these tables, especially to physicians and invalids, cannot be overestimated. A careful perusal and study of them cannot fail to convince the reader that the world cannot produce a country with a more even temperature, nor a place where the invalid is less liable to be chilled by wintry frosts, or debilitated by summer heat.

A daily sea breeze tempers the summer air, and the nights are always agreeably cool. It will be observed by reference to the annual table of temperature, etc., for 1873, found in the Appendix, that the prevailing winds in this locality blow from the west and northwest; but this information does not convey a true knowledge of the perfect law or system of our daily ocean and land breezes.

From early morning until 8 or 9 A. M. each day, the velocity of the wind does not exceed two miles per hour, and its direction is variable. As the sun's rays become more vertical, increasing the heat of the earth, which is communicated to the superincumbent atmosphere, gradually expanding it, the air over the water (being much cooler than that over the land), obeying a familiar law of nature, flows to the heated land. As the temperature of the land increases so does the velocity of the wind from the ocean to the land increase, until the greatest heat of the day is attained. This occurs about 2 P. M. The mean of the wind's velocity at this time is about ten miles per hour.

The same law in an inverse order is observed as the sun declines. The regularity of this interchange can be relied upon with nearly the same confidence as the motion of the earth in her daily revolution. This regular ocean breeze each day is the prime cause of our even temperature and equable climate. After sunset the earth soon radiates much of the heat received from the sun during the day, and by 9 P. M. the atmosphere over the land is cooler than the air over the ocean; so that during the night the system of winds is reversed. There are not a dozen days in the year that fog can be seen on land after 9 o'clock in the morning; and it is rarely seen previous to that hour.

The late Prof. Agassiz, whose testimony is worthy of the highest consideration, after spending some weeks in San

Diego, thus expressed his opinion with regard to the climate, at a public meeting:

"There is one advantage that I, as a scientific man, may lay more stress upon than is necessary; but I hardly think it possible. It is the question of latitude. You are here upon the thirty-second parallel, beyond the reach of the severe winters of the higher latitudes. This is your capital, and it is worth millions to you."

A *Herald of Health* of a year ago contains an article entitled "California as a Residence for Invalids," from the graceful pen of C. M. Plumb, a gentleman of culture and extensive travel.

The summing up of his essay, in which he gives San Diego the preference to all other places as a health resort, is so truthful and suggestive that it is worthy of a place here. He says:

"*A Dry, Healthful Atmosphere.*—San Diego has ten inches less rain-fall than Marseilles, fourteen less than Genoa, thirty-three less than New York. Although upon the coast, the relative moisture in the atmosphere is small, and the occasional fogs are dry, like those of Newport.

"*An Equal Temperature.*—The sudden changes so common elsewhere, and so trying to sensitive organizations, are here absolutely unknown. The record of an entire month, June, has given a range of only twelve degrees. Between the mean of January and July, there is at San Diego a range of twenty-one degrees, at Mentone thirty-three, Marseilles thirty-two, and New York forty-two degrees.

"*Absence of Extremes.*—Neither winter's cold nor summer's heat prevail in this peerless clime. The entire range of the thermometer is but fifty degrees; from thirty-eight to eighty-eight; instead of a variation of one hundred and fourteen degrees, as in New York. A similar degree of heat is also far less oppressively felt than at the East.

"*Salubrious Sea-breezes.*—South of Point Conception, the winds of the Pacific are mild and genial. They prevail from nine in the morning to four in the evening, rendering the air delightfully cool.

"*Freedom from Damp Fogs and Chilly Winds.*—The cold,

penetrating fogs of the northern coast do not visit this region; and the sea-breezes are rarely chilling in their effect upon the most delicate.

"*A Sunny Sky—few Cloudy Days.*—The 'sun cure' is open to patients nearly every day in the year, and one can hardly over estimate the healthful, electrical influence of this upon residents.

"*Invariably Cool Nights.*—This delicious feature is a sure preventive of epidemics.

"*Absolute Freedom from Miasma.*—The dry atmosphere cures meat before decomposition sets in, and quickly dries up decaying vegetables, and there are no swamps.

"*A Deep Fertile Soil with no Mud.*—Roots have been known to descend in this unfathomable soil thirty feet. Either surface or sub-soil hardens quickly, making roads equal to the macadamized.

"*Luxuriant Semi-tropical Fruitage,* affording abundant provision of health-giving food."

A most laudable enterprise, and one that must insure a revenue to those who engage in it, is the erection of a Hygienic Home. If handsomely built, furnished and surrounded with the beauties and embellishments this place so lavishly offers; if skilled physicians and nurses are secured, such a home would, in a few years, become famous throughout the civilized world.

Florida, which affords a winter retreat for so many northern invalids, lacks our uniform temperature, and her summers are hot and unhealthy. Here we have no debilitating summer heat to counteract by winter frosts. The days, from January to December, are so uniform, one feels a constant invigoration. While Eastern friends search in vain for a cool apartment in which to repose during the nights of the hot summer months, we here sleep under a warm blanket, and awake refreshed to inhale the delightfully cool morning air.

While Eastern invalids, exhausted by the day's heat, are fanned through the sultry night to furnish a meagre supply of fresh air, San Diego's sick acquire new life by inhaling the cooling atmosphere of a summer night.

The proportion of deaths to the population is much less

in San Diego than any other city in the Union; while a large percentage of those who have died here in the past four years, are those who came in advanced stages of consumption, when too late to rally from the effects of long journeys, anxiety and weakness. (See Mortuary Table in appendix.)

### MISCELLANEOUS.

An objectionable feature of new countries, from which San Diego is happily exempt, is the high cost of provisions and other articles of general use. Breadstuffs and meat are cheaper than at the east, and groceries quite as cheap. Fuel is higher than in wooded countries, but this is more than balanced by the small quantity necessary to be used. Very little, except for cooking, is required. Fire, mornings and evenings, is often agreeable in the winter, but seldom needed during the day at any season of the year.

Merchants may now ship their goods direct from New York via Panama, thus saving the extra expense of reshipment from San Francisco, saving the profits made by San Francisco wholesale dealers, and thereby materially reducing the cost of living.

Fare between San Diego and San Francisco is very low, owing to an opposition line of steamers. From four to ten dollars for first class fare, a distance of 456 miles. Freight is \$2.50 per ton.

Lumber for building purposes can be laid down here from Puget Sound and Humboldt Bay, for from twenty-five to forty dollars per thousand.

Vegetables may be had at all seasons of the year, by irrigating during the summer months.

The bay and ocean, immediately outside, abound in fish of large size and most delicate flavor.

Wild geese and ducks are plentiful in winter; deer, rabbits and quail are found in the foot-hills.

Our natural roads are unsurpassed. Those which have been longest traveled by the old Spanish population are so solid and smooth that a horse's hoof leaves no impression upon them.

Tornadoes or other violent or destructive storms never

visit this place, and earthquakes are of very rare occurrence. Scarcely a tremor has been felt for many years.

An erroneous opinion has prevailed abroad that "going to California" was the end of labor; that when that western goal was reached, golden eagles were waiting for empty purses, and the almost spontaneous fruits of the earth were to be had for the gathering. This is a mistake as regards this section, as well as all other portions of the State. It requires energy, skill, and wisely applied means to obtain a livelihood and secure wealth, here as elsewhere. Those who possess most of these will ultimately prove most successful.

We do not advise healthful persons, who are comfortably settled in other homes, to dispose of them, with a view of making new ones here, without having previously visited this country and formed their own opinions of it, based on personal knowledge. But we will be pleased with the advent of all good people who shall be attracted to this delightful summer land of sunshine and flowers, and will heartily extend to them the welcoming hand of friendship and good will.

[From the "San Diego Union."]

The idea appears to be generally prevalent at the East that San Diego, lying so far south, must necessarily be an excessively hot place in the summer months. Our Eastern visitors are invariably astonished when we refer them to the official records of our temperature made by the United States Signal Service Observer at this station. These records show that only once during the year 1873, the thermometer reached 85°, and that was in November, and only once it went as low as 37°, which was in February. The maximum and minimum heat in each of the twelve months is shown by the following figures, which represent degrees: In January, 74-43; February, 77-37; March, 72-40; April, 82-42; May, 75-52; June, 75-58; July, 77-60; August, 78-63; September, 82-55; October, 76-49; November, 85-49; December, 68-44. If a less variable and more completely temperate climate can be found on the face of the earth, we know not where it is. It is certainly not in the

United States. The entire number of degrees range of the thermometer in the several months, commencing with January, was only 32, 40, 32, 40, 23, 17, 17, 15, 27, 27, 36, and 24.

But the uniformity of temperature in San Diego, unparalleled elsewhere, is more fully shown by the observations taken at three different hours each day. By those taken at five minutes before five o'clock in the morning, the mean number of degrees for each month was as follows: for January, 51; February, 48; March, 52; April, 52; May, 56; June, 59; July, 63; August, 65; September, 67; October, 57; November, 56; December, 49. It thus appears that, at this hour of the day, the difference between the heat of one month and that of the month following was once, nothing; once, only one degree; twice, two degrees; twice three degrees; three times, four degrees; only once, seven degrees; and only once, ten degrees.

The second time of observation was in the early part of the afternoon—at five minutes before two o'clock. It is then when we look for the mercury to reach its greatest height. The sun is nearly over us, and he has been imparting heat to the earth during all the morning and noon. Now what do the official records show in regard to this hottest portion of the day? The mean of the daily observations in January was 64; in February, 59; March, 62; April, 65; May, 65; June, 67; July, 74; August, 74; September, 70; October, 68; November, 66; December, 60. The monthly means of the daily observations taken at twenty minutes after eight o'clock in the evening were, for the several months respectively, beginning with January, 55, 53, 56, 57, 50, 62, 64, 68, 66, 61, 59, 54.

In addition to these monthly means, we might present the daily observations themselves, which show that not only the *mean* temperature of any one month at a given hour is very nearly the same as that of every other month at the same hour, but also that the several days during each month scarcely differ in temperature one from the other. But such an exhibit for the whole year would make the present article too long; so we give only the afternoon observations during June and December, these months being fair samples

of all the others. The June records show the degrees of heat, at five minutes before two o'clock, to be 72, 66, 65, 65, 68, 66, 66, 67, 67, 66, 67, 64, 67, 67, 65, 69, 70, 67, 67, 70, 68, 67, 67, 67, 68, 70, 75, 73, 71, 67. The December records show 62, 57, 59, 58, 61, 58, 59, 60, 58, 56, 56, 57, 60, 61, 61, 59, 59, 64, 61, 60, 59, 58, 62, 67, 67, 68, 68, 66, 63, 61, 59.

Such are our summers and such our winters. The same clothing is worn throughout the year. No thin suit is required on account of excessive heat; and no heavy overcoat because of excessive cold. The sweltering nights of June and July in New York and Philadelphia are unknown here. The sleeper always needs a blanket to cover him, and he awakens the next morning refreshed by a whole night's sleep. In December and January the contrast between here and New York is equally great. A fire in the sitting-room is seldom required for comfort; and, at night, a feather bed and a heavy padded covering would be positively uncomfortable.

With the fullest confidence we place San Diego, for climate, before the rest of the world. The record of temperature given in this article accounts for the very favorable showing in regard to health furnished by the mortuary statistics for the county during the last year. Only fifty-three deaths from a population of nine thousand, or a trifle less than six for one thousand! and thirteen of the fifty-three were consumptives from abroad who came here diseased beyond recovery. In 1872, the number of deaths per thousand inhabitants in other places was as follows: In New York, 32.64; Philadelphia, 26.28; Brooklyn, 30; St. Louis, 23.02; Chicago, 27.60; Baltimore, 25.94; Boston, 30.53; Cincinnati, 20.46; New Orleans, 30.61; San Francisco, 17.50. With these San Diego stands out in marvelous contrast, at 5.88. To this wonderful natural sanitarium we specially invite such as have a predisposition to pulmonary disease, not yet fully developed.

## AMONG THE WILD FLOWERS OF SAN DIEGO.

BY JAMES S. LIPPINCOTT.

The vegetation of San Diego presents an extraordinary appearance to the visitor from the Northern and Eastern States, and, if he be possessed of scientific proclivities, will prove exceedingly interesting. Should he arrive in December, his attention will be early arrested by the peculiar mildness and the even range of temperature, which permits the continued blooming of many plants, and the appearance of flowers, whose congeners he is accustomed to find greeting the early spring in his Eastern home. The equable character of the temperature through December, January and February is strikingly expressed in the stagnant condition of sundry incipient flowers, which, having advanced to the condition of colored buds, await through the three months named for a few warmer days in which to evolve their colors. One of the most remarkable of these is a caper-like plant (*Isomeris arborca*), which early in December exhibits a sparse bloom, and continues to labor under the difficulties of its condition, making no advance until March, when a few degrees of additional heat open its fine, yellow flowers; and soon its large inflated brown seed-vessels appear at the extremity of the long protruded pistils.

The earliest plant which appears upon the lower bench, or *mesa*, is a saxifrage. This, like its Eastern sisters, leads the floral throng, and blooms in December; but, unlike them, enjoys the advantage of a bulbous root—a necessary aid for preserving its life during the long droughts of summer. Drawing sustenance from a depth of from four to six inches, it sends up its long, slender scape, develops one simple leaf, and a pale, diminutive flower, but, anchored below, resists the unfavorable agencies that would destroy

every Eastern saxifrage, though accustomed to meagre fare, and taking fast hold in "the clefts of the rocks." In the sunny exposure in the arroyas occurs a shrub, apparently an *Eriogonum*, which, in December, adorns its fine cut foliage with heads of small, white flowers. For many weeks no others, except the above named, are conspicuous in uncultivated grounds. Soon a bright yellow flower, probably a *Gaura*, hugs the soil, which it adorns with its bright stars, and a yellow violet, its petals shaded on the back with a rich brown, and its throat marked with dark lines, throws up its long peduncles from its leafy prostrate stem. Over the stumps of laurel (*Lithræalaurina*) soon begin to trail the long green stems of the mandrake (*Cucumis perennis*), and to hang out its racemes of white flowers. This extraordinary plant is possessed of a vast storehouse of supplies, and appears to be capable of enduring a siege through years of drought. Its corm is a solid fleshy mass, often exceeding the size of a bushel measure, and to the taste, intensely bitter. From this mass the long stems arise annually, and adorn large clumps of shrubbery with their green palmate leafage, and on the pistillate plant are developed, in March, the green spring cucumbers.

A few days bringing increase of heat appear, and life leaps upward, bloom and beauty increase around us, and the purple blossoms of the *Alfilerilla* (pronounced Elfillaree), Spanish *Alfiler* (a pin), the clover of this region (*Erodium maschatum*) appear. This plant presents the aspect of a flattened tuft of fine cut leaves pressed to the ground; but where the soil is good, and it can obtain an undisturbed growth, it produces a heavy crop of leafage, which probably should prove as valuable for hay as it does for pasturage. It appears to endure the drought with extraordinary persistence, and to flourish on hill-sides where the true clovers would assuredly fail for want of moisture.

It will probably surprise our Eastern friends to learn that the horses, cattle and sheep of Southern California are pastured upon geraniums; for to this order the *Erodium* belongs, being placed indeed between the geraniums and the *pelargoniums*. Intermixed with the *Alfilerilla* appear the slender succulent stems and narrow spatulate leaves of the

*Calandrina menziesii*, allied to the spring beauty of the Eastern States. This plant often spreads over wide areas, adorned by its small magenta blooms peeping from amid the bright green of its leaves, and, in favorable situations, after heavy rains, it puts on a magnificent aspect, standing a foot or more in height, and, massing its brilliant coloring, rivals the glory of a bed of portulacca, to which genus the *Calandrina* is closely allied.

As the vegetation of this region is influenced by the elevation and exposure, it may be described more clearly by watching the changes as we rise from the bay shore to the distant heights. At the lowest levels, over which the highest tides flow, *Salsola* and salt grasses appear, and on the clay soil, elevated but little above the reach of tides, the ice-plant (*Mesembryanthemum*) abounds. The leaves of this species, though rather small, are brilliant with a rich setting of gem-like vesicles filled to the utmost with saline juices, and cover the surface of the ground with their varied curving masses of green and purple, and bright with starry flowers. Many acres of fallow ground, and also gardens, are covered by this *Mesembryanthemum*, accompanied at times by another species of much more robust growth, whose leaves, twice the size of one's hand, resemble bunches of luxuriant lettuce, almost tempting the observer to gather for his palate's delectation this green herb, which certainly would need no salt in its dressing. A walk over acres of these singular plants saturates one's boot-soles, and the sportive pedestrian, with but moderate effort, may slide upon the slippery surface. Another ice-plant, producing leaves of the shape, thickness and length of one's finger, but triangular in section, abounds on the sand dunes of the neighboring isthmus of San Diego, where its long trailing stems, beset at short intervals with its unique leaves and large red-fringed radiant flowers, are interesting to the most casual and least informed observer. On the bay sides of these dunes occurs also a fine *anacardiaceous* plant, the *Styphonia integrifolia*, which, with its head of white and roseate small daphne-like, but inodorous flavor, thick coriaceous leaves and strong growth, form a highly ornamental shrub. This plant again occurs on the high mesa, near the

city, and in Paradise Valley, it becomes a tree of respectable size, as does also, to the surprise of the Northern botanists, a species of Elder (*Sambucus*), or a close ally to that genus. An ericaceous heath-like shrub is abundant on the lower levels, and has put on the thick succulent character of saline plants, though generally possessed of a dry and coriaceous leaf. This plant delights to grow upon the extreme borders of the bluffs, and to hang its stiff branches over the low clay banks that bound the bay shore.

More remote, but still not distant from the water, the lower levels are delicately tinged with the light blue flowers of a *Gilia* or *dianthiflora*, with the magenta-flamed *orthocarpus purpurascens*, allied to the *castilleja* (painted cup), sprinkled with the delicate white stars of the *Eritrichium Californicum*, a near ally of the forget-me-not (*myosotis*), and two varieties of the humble *Plantago patagonica*. Over the bright green of these bay-side pastures appear broad spreading growths of purple-fruited pepper grass (*Lepidium*), which, from a position slightly elevated, appear like cloud-shadows flecking the surface of the brighter verdure.

As we rise higher, the American Cowslip, or Pride of Ohio, or shooting stars (*Dodecatheon* of the botanist), literally the twelve gods, but wherefor is not clear, abound in favored spots, sometimes covering many square rods, and hanging their pink and white banners with a singular abandon. On some hill-sides in the Paradise Valley, four miles east of San Diego, we have seen masses of this unique and beautiful plant standing one foot in height, of extraordinary vigor, and everywhere putting on a character and coloring so diverse from the Eastern species, the *Meadia*, as to induce us to believe it really distinct.

Clumps of *Lithraea laurina*, allied to the sumac of the Eastern States, but very unlike in aspect, now appear, their feet tangled by masses of *Phacelia tanacetifolia* and mirabilis *Californica*, or adorned by trailing stems and broad palmate leaves of the Mandrake, which have been already referred to as among the earliest blossoms.

The alfilerilla (*Erodium moschatum*), a clover of this region, now occurs more frequently, and, in the absence of grasses, forming a thick mat, gemmed with its small pink



flowers, blooming through the winter far into the spring; and, however dwarf they may have remained through poverty of sustenance, invariably, if not too closely cropped, put on at length their obliquely-arranged tufts of crane-billed seed vessels. The long slender divisions of this crane-bill are wound spirally upon the carpophores, and, when ripe, they are still more violently twisted, perhaps by hygrometric absorption, and drawing the seed from its seat, lifts it aloft radiantly from the centre of support, and offer it a prey to the winnowing winds, which scatter it far and near. A *Elemtis*, perhaps the *Erecta anemone* of this region, lifts its white and yellow stars above the dense green around, and the lovely little *Gilia diamthiflora* spreads its carnation-colored fringed petals to our admiring gaze, covering the ground with its delicate tints of fairy beauty. A few ranunculaceous plants appear, among them a larkspur, but no showy yellow buttercups adorn the mead. Here the small *Linaria Canadensis* lifts its dark blue flowers, and the *Calandrina menziesii*, with brilliant red petals, stars the dense greenery of its surroundings, and sometimes usurps the place of the abounding alfillerilla.

The caper shrub already referred to soon appears, and clumps of the finely cut leaves of the *Artimisia* become more abundant. The Spanish dagger (*Yucca filamentosa*), flat-leaved cactus or prickly pear (*Opuntia missouriensis*), and the club cactus (*Opuntia Bylovii*), and *Erioduction tomentosum* become more abundant as we leave the bay or descend into sheltered arroyas or dry water-courses. The first-named cactus rises in these protected localities, the most remarkable of which is Cholla (cactus) Valley, where they attain to the height of six feet, and form large clumps of impenetrable chaparral. In the Cholla Valley the cactus frequently gives place to abundant growths of shrubs, among which we detect an *Arctostaphylos* and a *Ceanothus Styphonia integrifolia*, *Erioduction tomentosum*, and a *Mahonia* allied to *Aquifolium*; over these frequently trail the long vine of a pea, which hangs out its grand racemes of large crimson blossoms. A brilliant purple lupine appears at the foot of stony cliffs. Pale *Athagalus*, with bladder-like legumes, occur at intervals, and a large red flowered

monkey-plant, *Mimulus*, adorns the dry arroyas; while the roadway is often lined with dense and tall growths of a bright yellow-flowered *Amsinckia lycopsvides*, which encroaches upon the wheat fields of this fertile vale. Such is the scene in March. In April new flowers appear, among which the more beautiful; though not absent, and sheltered among the bushes, are the beautiful *Collinsia bicolor*, two species of monkey-plant (*Mimulus*), one of which is the luteous, of a brilliant yellow, large and showy, and the fuschia-flowered gooseberry, *Ribes speciosum*. The cacti do not present us with many flowers, but the *Yucca*, in favored situations, displays a magnificent mass of rich purple buds and creamy lilies, bursting into beauty from amidst its forbidding clusters of dagger-pointed leaves. On stony slopes the low spherical-spined cactus (*Echinocactus*), and the *Cereus* occasionally occur. On these middle heights above the bay the ground is often yellow with a bright *Gaura* and the yellow violet, intermingled with the pale tint of the wild onion and blue litiaceous plants, among which the *Milla capitata* is conspicuous; while composite flowers, such as *Senecio Californian* and *Pentachaeta aurea*, cover thousands of acres.

The botanist can scarcely take a step without treading upon a plant unknown to him in his eastern fields. Now he stops to gaze with admiration upon the spread of *Dodecatheons*, or to throw up his hands with delight as he pauses beside a half acre of California poppies (*Eschscholtzia Californica*), which at midday resembles beaten gold, the most brilliant and most fascinating of California flowers. Nature is here in her loveliest mood, and robed in her brightest colors. She has spread her tapestries of the magenta-colored *Castilleja* like orthocarpus, until they rival the gorgeous carpets of Persian looms, and has hung the hillside in draperies that outshine Bluff King Harry's "Field of the Cloth of Gold." The rapid growth made by its many trees planted in and around San Diego is well worthy of remark, as exhibiting promise and prophecy of the future—when this land shall be clothed with abundant arborescent verdure.

The blue gum-trees from Australia (*Eucalyptus globulus*), and the Mexican pepper-trees (*Schinus molle*), hundreds of



which have recently been planted in the streets of San Diego, and on the mesa, promise to become admirable ornaments to the city. The Mexican pepper-tree is peculiarly beautiful in its fine pinnate foliage, drooping gracefully, and hung with racemes of large, red currant-like fruit.

In National City, where trees were earlier planted, we were shown in the grounds of Mr. Kimball a bottle-brush acacia, which in four years has attained a diameter of nine inches, at the height of one foot from the ground. An *Oceanica* tobacco tree had in five months grown to the height of fourteen feet. Olive trees from cuttings, inserted in May, 1873, had in ten months reached the height of nine feet, and were ready to blossom. A blue gum-tree (*Eucalyptus globulus*) had in four years reached a circumference of twenty-eight inches, and stood twenty-eight feet high, fifteen feet having been removed.

At Asher's nursery a fig tree, but two years old, extended its topmost branches twelve feet, and a lemon tree, five feet high, had grown in one year from the planting of the seed.

Another blue gum, in the adjoining ground of Mr. Geo. C. Swan, in this paradise of almonds and figs, had soared in four years to forty feet, with a diameter of about one foot, and a fig tree, but four years old, had borne to its proprietor two thousand figs!

With a climate admirably adapted to the growth of trees, and the production of every semi-tropical plant, and where abundance of water can generally be commanded at moderate depths in the lower levels; what more are needed but capital, energy and enterprise, to make this southern land an earthly paradise, where, under the benign influences of free institutions, liberal culture, and a pure faith, while "every prospect pleases," man need not be vile!

TABLE SHOWING THE TEMPERATURE AT SAN DIEGO, CAL.,

Three times each day, during the Spring months of the year 1872.

DATE.	MARCH.			APRIL.			MAY.		
	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.
1	47	62	52	54	61	56	65	83	72
2	44	69	56	56	60	56	70	76	60
3	56	73	54	55	65	53	60	69	58
4	53	69	54	53	66	51	58	65	59
5	55	64	55	55	63	54	56	66	58
6	55	61	49	53	59	48	57	62	57
7	52	61	49	48	63	49	56	61	55
8	47	65	51	53	64	54	54	61	55
9	52	65	55	53	64	53	54	62	55
10	56	64	52	55	63	48	56	63	57
11	50	62	56	49	66	50	56	63	57
12	49	61	56	55	66	49	58	63	57
13	47	63	51	56	59	50	58	64	59
14	50	64	52	51	61	48	57	63	56
15	50	64	47	51	60	50	58	65	58
16	46	64	48	55	59	54	59	65	57
17	44	70	49	54	62	49	60	65	59
18	49	66	55	52	71	52	58	66	58
19	53	66	51	56	63	55	59	64	58
20	47	61	49	55	65	51	59	65	56
21	46	63	52	55	63	56	58	66	59
22	52	63	56	55	64	56	57	66	60
23	57	61	55	56	65	56	60	66	60
24	54	64	57	57	70	58	61	67	61
25	55	64	54	59	62	56	62	68	60
26	53	66	51	57	67	57	60	70	61
27	58	66	61	57	63	54	61	71	59
28	58	63	59	54	60	49	59	70	61
29	53	62	54	55	64	52	61	69	62
30	55	56	54	58	75	65	63	66	60
31	54	62	56				59	65	58

TABLE SHOWING THE TEMPERATURE AT SAN DIEGO, CAL.,  
Three times each day, during the Summer Months of the year 1872,

DATE.	JUNE.			JULY.			AUGUST.		
	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.
1	60	67	59	63	72	63	64	72	64
2	63	71	60	63	74	64	67	74	67
3	63	68	60	64	71	64	70	76	66
4	63	68	59	64	71	62	70	75	68
5	64	68	62	62	71	63	70	74	68
6	62	68	61	62	72	65	69	74	67
7	59	69	62	63	71	64	69	74	67
8	62	69	62	64	74	64	65	75	67
9	62	68	61	65	71	64	66	71	69
10	60	67	61	64	67	64	65	72	63
11	61	71	63	66	67	63	66	72	63
12	65	70	62	63	72	64	64	72	63
13	60	69	62	66	75	68	64	72	65
14	63	73	62	64	74	66	65	74	66
15	61	68	62	64	74	66	64	73	65
16	63	68	60	65	75	67	65	74	64
17	60	68	59	67	72	66	65	72	66
18	63	68	62	65	72	65	65	72	65
19	65	74	65	66	74	66	65	72	65
20	68	81	68	64	74	65	65	73	65
21	73	83	72	66	73	66	65	73	66
22	75	79	75	64	73	65	66	74	68
23	71	80	67	67	74	67	66	76	66
24	66	73	64	68	72	65	67	77	68
25	65	72	64	66	73	66	71	77	71
26	63	72	63	68	72	66	77	86	76
27	63	73	67	64	72	63	78	83	72
28	64	72	63	65	71	63	70	79	71
29	63	73	64	65	73	65	69	77	71
30	67	71	64	67	73	65	68	76	70
31				65	74	65	68	75	69

TABLE SHOWING THE TEMPERATURE AT SAN DIEGO, CAL.,  
Three times each day, during the Fall months of the year 1872.

DATE.	SEPTEMBER.			OCTOBER.			NOVEMBER.		
	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.
1	70	76	69	61	68	59	57	74	62
2	65	72	65	61	67	59	55	69	56
3	65	71	63	60	71	62	55	65	59
4	61	72	65	59	70	62	55	62	57
5	64	75	68	60	69	60	52	65	57
6	68	74	67	57	69	61	53	74	61
7	65	74	67	61	87	64	53	74	61
8	64	73	66	66	81	64	53	68	58
9	67	72	63	64	72	63	58	65	54
10	62	71	64	59	68	62	48	65	50
11	62	73	69	60	69	61	44	65	53
12	68	80	67	59	68	62	47	65	53
13	65	76	65	59	68	62	50	66	56
14	64	78	64	60	71	63	55	74	65
15	62	78	66	62	58	60	60	81	66
16	66	72	65	60	57	59	60	77	58
17	63	74	64	57	66	57	59	72	61
18	62	74	64	54	69	64	50	69	53
19	64	71	61	61	69	62	49	68	56
20	61	71	61	60	66	60	54	70	56
21	62	71	60	60	67	61	42	62	55
22	60	71	60	61	68	61	46	61	53
23	56	70	62	60	66	61	54	62	59
24	60	72	64	61	66	58	55	62	52
25	62	74	64	59	66	57	52	62	52
26	62	68	61	59	65	58	45	60	52
27	58	69	61	58	66	59	47	64	54
28	58	73	63	49	65	57	51	65	58
29	58	68	60	51	69	56	52	74	61
30	58	69	62	54	69	59	60	77	59
				52	71	59			

TABLE SHOWING YEARLY AND MONTHLY MEAN OF THERMOMETER,  
MONTHLY VELOCITY OF WIND, AND AMOUNT OF RAINFALL WITH THE PREVAILING DIRECTION OF WIND, ETC.,  
FOR THE YEAR 1873.

Prepared by J. B. Wells, Observer Signal Station, San Diego, California.

THERMOMETER.										WIND.										RAINFALL.	
MEAN.		MEAN OF				RANGE.		Prevailing direction.	NUMBER OF MILES.						Total Miles.	Amount in inches.	Number of days on which rain fell.	Number of Auroras.			
A. M. observ'n	P. M. observ'n	Night observ'n	Max'm	Min'm	Difference	Noon to 6 P. M.	6 P. M. to midnight		Midnight to 6 A. M.	6 A. M. to noon.	Max'm Velocity										
51	64	55	75	43	32	NW.	1093	610	603	1074	37	3380	.44	2	0						
43	59	53	77	37	40	NE.	1455	812	803	1430	29	4500	4.15	11	1						
52	62	56	72	40	32	NW.	1472	544	542	1362	18	3920	.11	2	0						
57	65	57	82	42	40	NW.	1930	565	565	1980	29	4940	.10	1	0						
58	65	59	75	52	23	SW.	1700	500	500	2090	23	4780	.01	1	0						
60	56	62	75	58	17	S.	1634	649	513	1348	18	4134	...	0	0						
59	67	64	77	60	17	W.	1838	793	560	1181	16	4372	...	0	0						
62	74	68	78	63	15	W.	1994	646	462	1169	16	4292	1.95	6	0						
67	65	70	82	55	27	W.	1854	616	510	1135	18	4115	...	2	0						
69	67	66	82	49	27	NW.	1727	557	506	970	16	3760	...	9	0						
68	68	61	76	49	36	W.	1287	575	556	786	14	3205	.77	6	0						
57	66	59	85	49	36	W.	1156	630	774	767	15	3387	5.46	7	0						
56	60	54	68	44	24	NE.															
49	60	54	68	44	24	NE.															
54	49	60	68	44	24	NE.															
60.6	53.2	66.1	77	49	27	W and NW.	1595	629	574	1274	20	4066	12.99	31	1						
MONTHS—1873.																					
JANUARY.....																					
FEBRUARY.....																					
MARCH.....																					
APRIL.....																					
MAY.....																					
JUNE.....																					
JULY.....																					
AUGUST.....																					
SEPTEMBER.....																					
OCTOBER.....																					
NOVEMBER.....																					
DECEMBER.....																					
ANNUAL MEANS.																					

## PUBLIC AND PRIVATE INSTITUTIONS.

### EDUCATIONAL.

PUBLIC SCHOOL, operated under the general school law of this State. This is a graded school, having primary, intermediate, and grammar departments. At the close of the present school year (June) there will be a class fully prepared for a higher school department. Total number enrolled, two hundred and eighty-two; average number of scholars in attendance, two hundred and seventeen.

PRIVATE SCHOOL, J. D. Dorlan, corner of 10th and E sts.

YOUNG LADIES' ACADEMY, corner of 9th and G streets; S. M. Gunn, Principal. Instruction given in all the common and higher English branches, French, Spanish, Latin, instrumental music, etc. The academy building has a capacity for accommodating seventy-five scholars.

SAN DIEGO SEMINARY FOR YOUNG LADIES, on 8th street, between C and D streets; Mrs. O. W. Gates, Principal. The school was opened November 3d, 1873, and has accommodations for forty pupils. Instructions given in English and ornamental branches, ancient and modern languages, vocal and instrumental music.

SAN DIEGO SEMINARY, between 1st and 2d, and D and E streets, a boarding and day school for young ladies and gentlemen; Rev. D. F. McFarland, Principal. This institution affords all the privileges of a first-class boarding school. Two hundred can be accommodated in the institution. Instructions given in all the common and scientific branches.

### CHURCHES.

CHURCH OF THE HOLY TRINITY (Episcopal); Rev. Hobart Chetwood, Rector. Number of communicants, sixty; aver-

Secretary.....W. W. Stewart.  
 Treasurer.....C. Dunham.

Number of members, 50.

### COUNTY OFFICERS.

(Office at Court House.)

District Judge .....W. T. McNealy.  
 Treasurer.....José G. Estudillo.  
 Sheriff.....N. Hunsaker.  
 Register of Deeds and Clerk.....A. Grant.  
 District Attorney.....A. B. Hotchkiss.  
 School Superintendent.....J. H. S. Jamison.  
 Surveyor.....M. G. Wheeler.  
 Coroner (Office, Fifth street).....C. M. Fenn, M. D.  
 Public Administrator.....P. P. Martin.  
 County Judge .....Thos. H. Bush.

*Supervisors.*—W. G. Hill, Chairman; Andrew Cassidy,  
 F. N. Pauly, Jacob Bergman, James Duffy.

### CITY OFFICERS.

*Board of Trustees.*—E. A. Veazie, President; W. A. Be-  
 gole, J. B. Boyd, J. G. Estudillo, M. Keating.  
 A. P. Knowles.....Marshal.  
 M. P. Shaffer.....City Assessor.

### BOARD OF PILOT COMMISSIONERS.

Jas. S. Gordon, Capt. C. G. McAlmond, E. A. Veazie.

### SAN DIEGO BENEVOLENT SOCIETY.

T. L. Nesmith.....President.  
 — Wright.....Secretary.  
 A. H. Gilbert.....Treasurer.

### SAN DIEGO FREE READING ROOM.

Supplied with a good library, and newspapers from all  
 parts of the country. Rooms next door to Postoffice.

## BUSINESS DIRECTORY

OF THE

CITY OF SAN DIEGO.

### Newspapers.

San Diego Union. (Morning.) Plaza.  
 San Diego World. (Evening.) Plaza.  
 (Both Daily and Weekly.)

### Banks.

Bank of San Diego. Sixth street. T. L. Nesmith, Pres-  
 ident. L. G. Nesmith, Assistant Cashier.  
 Commercial Bank of San Diego. Corner of Fifth and  
 G streets. A. H. Wilcox, President. E. F. Spence, Cash-  
 ier. Jose G. Estudillo, Assistant Cashier.

### Hotels.

Horton House. Plaza. S. W. Crague, Proprietor. J.  
 A. Gordon, Manager.  
 Bay View Hotel, corner of I and Twelfth streets. Price  
 \$1.50 to \$2.00 per day.  
 San Diego Hotel, corner of F and State streets. \$1.50  
 per day; \$8.00 per week. S. Dunnells, Proprietor.  
 Occidental Hotel, corner of Fourth and E streets. John  
 Bogan, Proprietor.  
 Lyon's Hotel, corner of Seventh and I streets. Price  
 \$1.00 per day.

### General Merchandise.

Sterner & Klauber, Seventh street, corner of I.  
 McDonald & Co. (Lumber.) Foot of Sixth street.

## Plumbers, Gas and Steam Fitters.

Thos. Humphreys & Son, Fifth street, opposite Express Office.

Old Water Company.

Tasker & Hokè, Fifth street.

## Brickmaker.

Thomas Goss.

## Expresses.

Wells, Fargo & Co.'s Express and Exchange Company.

F. S. Laurence, agent, Fifth street.

C. Deleval, corner of Fifth and F streets.

## Shaving and Hairdressing.

Gregory & Trask, Fifth street.

Schwerer & Schneider (Baths), Fifth street.

H. H. Brown, Fifth street, near K.

Pietro Rosso, Sixth street.

## Bakers.

J. H. Koop, Fifth street.

Henry Heer, Fifth and J streets.

Joseph Winter, Fourth street.

## Furniture and Bedding.

John N. Young, general undertaker, Fifth st., near H.

James M. Young, corner of Third and G streets.

H. B. Hirschey, Sixth street.

## Stoves and Tinware.

Julian & Stutsman, Fifth street.

W. A. Begole, Fifth street, between H and I streets.

Joseph Morel, Sixth street.

W. G. Dozier, Superintendent of Pacific Mail Steamship Company, foot of Fifth street.

## French Teacher.

J. Josset. Graduate of the University of Paris.

## Lumber Dealer.

A. H. Gilbert & Brother, corner of J and Front streets.

## War Department, Etc.

War Department, Signal Service U. S. Army, Division of Telegrams and Reports for the Benefit of Commerce—J. B. Wells, Observer U. S. A.; William F. Allen, Assistant Observer U. S. A.

## Architects.

William Lacy, Commercial Bank Building.

## Civil Engineers.

C. J. Fox, Sixth street.

L. L. Lockling (City Engineer), corner of Sixth and E streets.

## San Diego Water Company.

H. M. Covert, President, Eleventh street, on Park.

## Truckmen and Expressmen.

Larsen & Wescott, foot of Fifth street.

## Wood and Coal.

T. Larsen, foot of Fifth street.

## San Diego Soap Works.

J. J. Buck, proprietor.

## San Diego Foundry and Machine Shop.

Corner of Eighth and M streets. Bayly Brothers, proprietors.

## Stone Yard.

E. Cook, proprietor, foot of Seventh street.

## San Diego Steam Flour Mill.

Corner of Twelfth and J streets; I. Lankershim, proprietor. Capacity, 120 barrels per day.

## Windmill Builder.

T. W. Graham, corner of Fourth and H streets.

## Moulding and Planing Mills.

John Heernander, foot of Sixth street.

W. W. Terry & Co., corner of Ninth and H streets.

John Hanlon, corner of Second and G streets.

## Book Binder.

R. Schieler, Fifth street.

## Stage Line.

Kearns & Mitchell's daily line of stages to Arizona and New Mexico; office, Horton House.

Attorneys at Law, Real Estate and Insurance Agents.

Luce & Porter, Attorneys at Law. Commissions concerning real estate attended to. Commercial Bank Block.

Hartman & Tyson, Attorneys at Law, corner of Front and F streets.

D. T. Phillips (City Attorney), Fifth street.

Daniel Cleveland, Attorney at Law, Sixth street.

Himbal Bros., Real Estate (National City):

J. B. Wells, Agent Aetna Life Insurance Company.

D. C. Reed, Attorney at Law, Real Estate and Insurance Agent, Plaza.

S. Statler, Notary Public and Real Estate Agent, Plaza.

Arnold & Choate, Real Estate and Insurance, corner of Third and E streets.

Geo. B. Hensley, Searcher of Records, Fifth street.

C. Dunham (Postmaster), Agent Hartford Fire Insurance Company.

T. S. Moore, Real Estate, Fifth street.

T. J. Higgins, Real Estate and Insurance, Fifth street.

H. H. Dougherty, Plaza.

Joseph Faivre, Real Estate, Fifth street.

John J. Lyon, Searcher of Records, Fifth street.

G. N. Hitchcock, Attorney at Law, Sixth street.

A. J. Chase, Insurance and Real Estate, Sixth street.

Chase & Leach, Attorneys at Law, Horton's Bank Block.

A. E. Horton, Real Estate, Horton's Bank Block.

J. A. Shepherd, Notary Public and Insurance Agent; with A. E. Horton.

W. Jeff Gatewood, Attorney at Law, Horton's Bank Block.

Louis Branson, Attorney at Law, Horton's Bank Block.

Chalmers Scott, Attorney at Law, Plaza.

G. G. Bradt, Notary Public, Real Estate and Land Agent, D street, near Horton House.

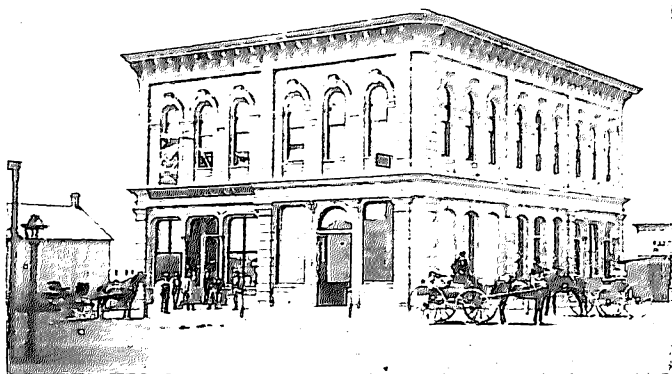
# DISTANCES FROM SAN DIEGO, CAL., TO PLEASURE RESORTS AND PRINCIPAL VALLEYS.

	MILES.		MILES.
To Anaheim .....	95	To Mesilla.....	850
Los Angeles .....	125	Santa Fé.....	1150
San Francisco .....	450	North San Diego.....	3
		La Playa.....	8
To Julian Gold Mines...	45	Point Loma.....	11
Bladen Mining Dis-		Coronados Islands...	18
trict.....	80	La Jolla.....	12
San Bernardino, via		"Old Mission".....	6
Julian and Bladen	150		
Mines .....		To National City. ....	4½
		Monument.....	16
To Japa Placer Mines, }	90	Sweet Water Valley..	5½
Lower California. }		Paradise Valley. ....	6
		Otay Valley.....	12
To Fort Yuma, A. T....	195	Tia Juana.....	14
Tucson.....	475	Cajon.....	12
Ralston Silver Mines.	650	Jamul.....	22
Silver City, New Mexi-		Milquatay.....	60
co.....	700	Higgin's Farm.....	10

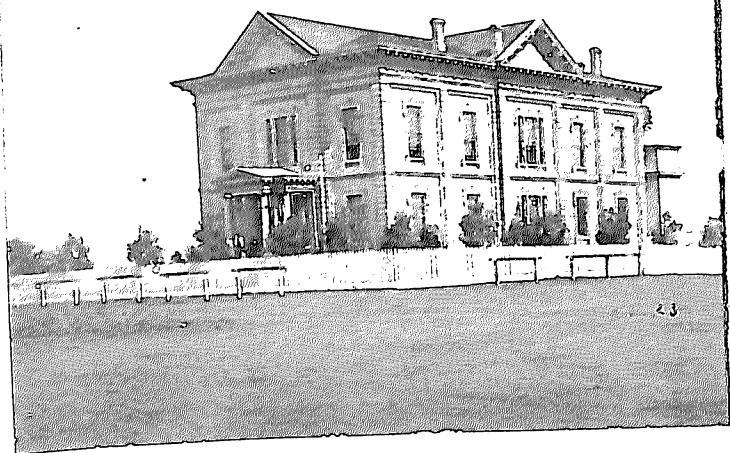
## MAIL FACILITIES.

Daily Mails to San Francisco and the East; Tri-weekly Mails to Arizona and New Mexico; Semi-weekly Mails to Julian Gold Mines; Weekly Mail between San Diego and San Bernardino.

Mode of conveyance of Mails, four-horse Concord Coaches.



COMMERCIAL BANK OF SAN DIEGO,  
 Capt. A. H. Wilcox, President, E. F. Spence, Cashier, J. G.  
 Estudillo, Assistant Cashier.  
 By PARKER & PARKER.



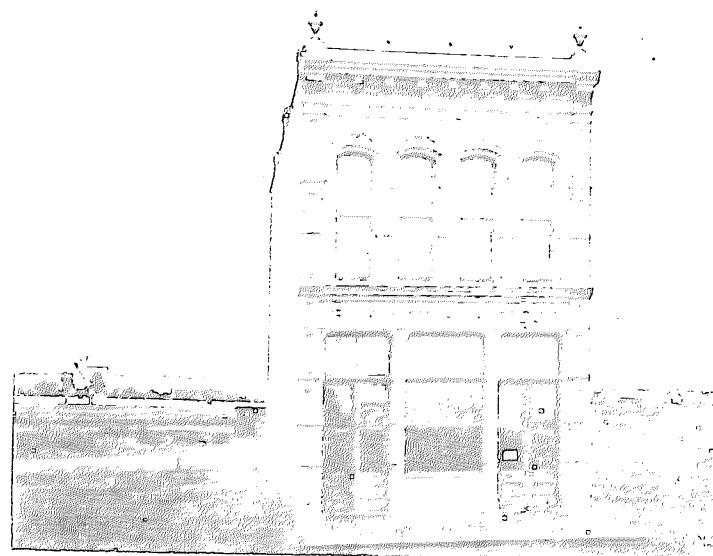
COURT HOUSE, SAN DIEGO.  
 By PARKER & PARKER.



Residence of A. F. HINCHMAN, Esq.  
By PARKER & PARKER.



Residence of J. G. CAPRON, Esq.  
By PARKER & PARKER.

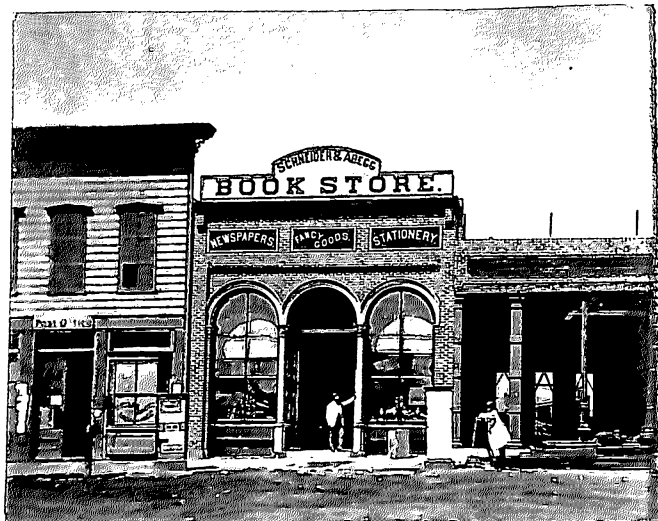


BANK OF SAN DIEGO,  
T. L. Nesmith, President, L. G. Nesmith, Assistant Cashier.  
By C. P. FESSENDEN.



W. W. STEWART.] Corner Fifth and K Streets, San Diego. [JOHN G. CAPRON.  
Shipping and Commission Merchants, and Dealers in Wool, Grain, Flour, Silver and  
Copper Ores; also, the celebrated Mitchell Wagons.





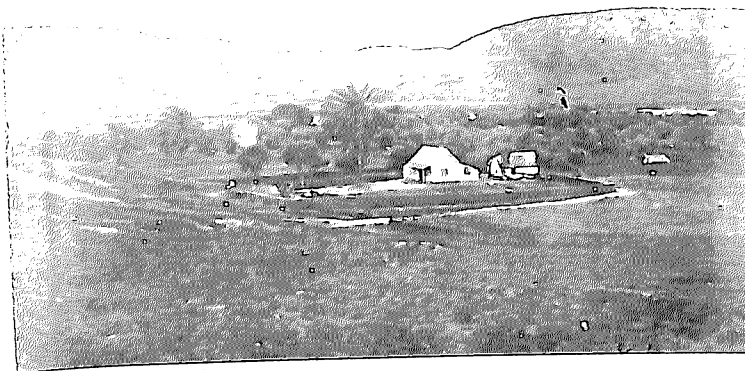
Importers and Dealers in Books, Stationery, Music, Chromos, Picture  
Frames, Newspapers and Magazines, Wholesale and Retail.  
By PARKER & PARKER.



HORTON'S BANK BUILDING.  
By PARKER & PARKER.



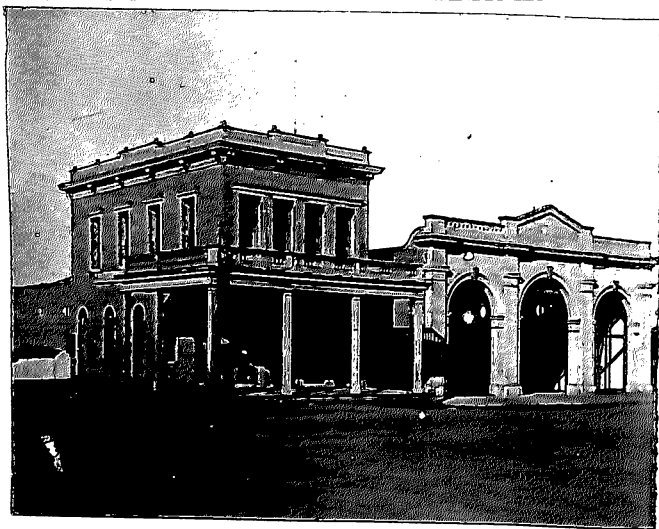
THE OLD MISSION (one hundred years old,) of San Diego.  
By C. P. FESSENDEN.



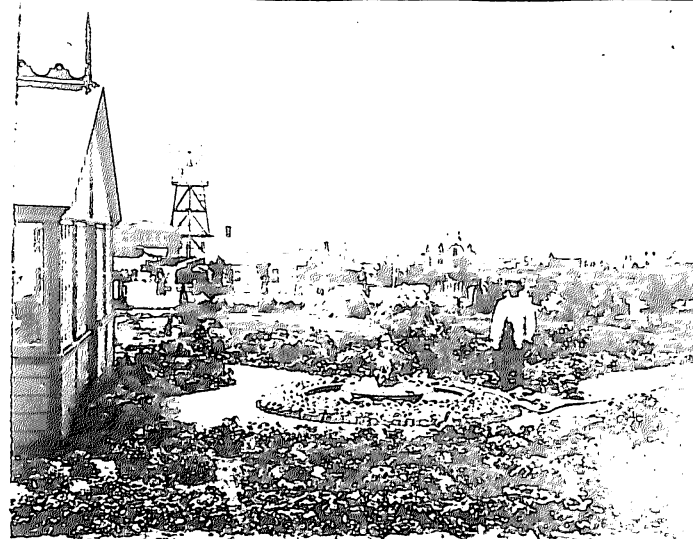
Olive Orchard and Palms, at the Mission of San Diego.  
By C. P. FESSENDEN.



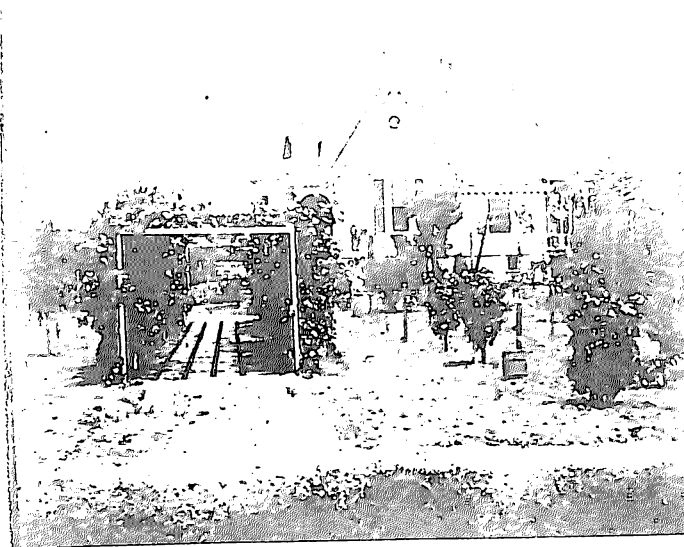
HORTON HOUSE, SAN DIEGO,  
S. W. Craigue, Proprietor, Capt. J. A. Gordon, Manager.  
By C. P. FESSENDEN.



CENTRAL MARKET, 5th STREET, SAN DIEGO.  
By PARKER & PARKER, 1873.



HORTON'S GARDEN, in December, 1874.  
By C. P. FESSENDEN.



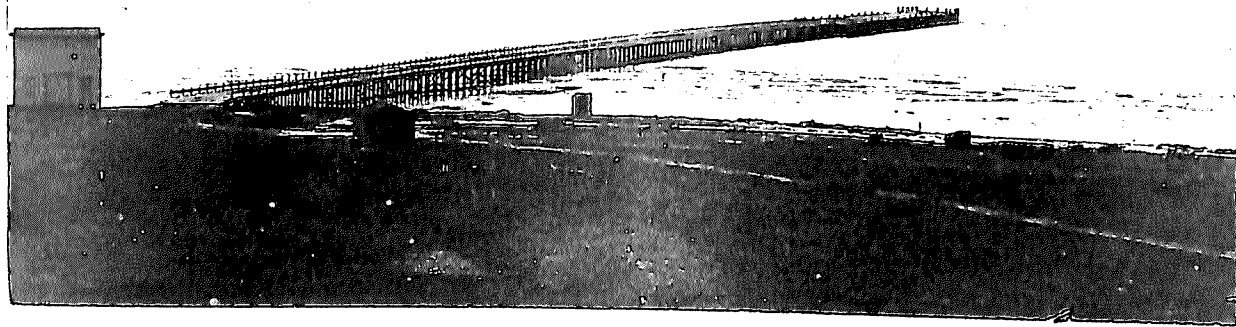
Residence of T. L. NESMITH, Esq., November, 1872.  
By C. P. FESSENDEN.



G. W. TREANOR, Proprietor.  
By PARKER & PARKER.



HINTON, GALLAGHER & CO., Proprietors.  
By PARKER & PARKER.



KIMBALL BROTHERS' WHARF, National City, near San Diego.  
By PARKER & PARKER.

# Land Lines of Travel from San Diego.

[FROM THE SAN DIEGO DAILY UNION.]

As a matter of general public interest we have prepared a statement showing the several land lines of travel leading out of San Diego, and the distances to all important points on the routes. Beginning at home, we give the principal points in or on the borders of San Diego county with which there is regular stage communication from this city, as follows: Yuma, on the east bank of the Colorado river (which forms the eastern boundary of the county), distant from San Diego 197 miles, and reached by tri-weekly stages of the San Diego and Mesilla Overland Mail Stage line; the Julian and Banner mining districts of this county, lying northeast of San Diego, distant by one route 55 miles and by another 65 miles, and reached by Hamilton's express wagon and by the stages of Treanor & Tweed's line, the former leaving at intervals of about ten days apart, and the latter three times a week (Mondays, Wednesdays and Fridays); San Luis Rey, northwest of San Diego and distant 45 miles, reached by the daily stage to Los Angeles; Temecula, north of San Diego and distant 60 miles, reached by Homer's stage leaving San Diego once every fortnight; Warner's Ranch and Agua Caliente, (Hot Springs) northeast of San Diego and distant 75 miles, reached by North's stage leaving the city every Tuesday; San Bernardino, county seat of San Bernardino county, about 30 miles north of the northern boundary line of San Diego county and 120 miles distant from San Diego, reached by Homer's stage, leaving once every fortnight.

The distances to prominent points in the Territories of Arizona and New Mexico reached by stage from San Diego are as follows: To Yuma,\* via Indian Wells,\* 197 miles; to Stanwix Station,\* 290 miles; to Maricopa,\* 380 miles; to Florence,\* 424 miles, to Tucson\* (capital of Arizona) and Camp Lowell, 480 miles; to Camp Grant 488 miles; to Fort Bowie (Apache Pass) 434 miles; to Ralston, New Mexico, 672 miles; to Silver City 717 miles. The foregoing are points on the line of the great Southern Overland Mail Route, Kerens & Mitchell proprietors. Fine four-horse Concord stages, with the best stock, run over this line, stages leaving San Diego tri-weekly. Tucson, the capital of Arizona, is reached in five days from San Diego. The distance from San Diego to Mesilla, New Mexico, is about 780 miles; Mesilla is 600 miles from the Atchison, Topeka and Santa Fe Railroad, and about the same distance from the branch of the Kansas Pacific.

To points in northern and northwestern Arizona, and New Mexico, we give the distances from San Diego as follows: To Yuma, as above stated, 197 miles, from Yuma (via the Colorado river) to Ehrenberg, 125 miles, and total distance 322 miles; to Camp Mohave (by stage) 437 miles. By branch roads from Maricopa—to Phoenix,\* distance from San Diego, 405 miles; to Wickenburg,\* 444 miles; to Camp McDowell, 461 miles; to Prescott,\* (Fort Whipple) 515 miles; to Camp Verde, 622 miles; to Albuquerque, New Mexico, 918 miles; to Santa Fe, 990 miles.

Points west and north of San Diego are reached by stage as follows: Over the Los Angeles road—to San Luis Rey, 45 miles; to San Juan Capistrano, 76 miles; to Anaheim, 100 miles; to Los Angeles 124 miles; to San Buenaventura, 194 miles; to Santa Barbara, 225 miles; to San Luis Obispo, 323 miles; to Paso Robles, 351 miles; to Salinas 395 miles; [Connection at Salinas with Southern Pacific Railroad,] to Gilroy, 432 miles; to San Jose, 462 miles; to San Francisco, 516 miles.

San Francisco may also be reached by the San Joaquin Valley route as follows: San Diego to Los Angeles, 124 miles; to Bakersfield, 316 miles, connecting with the Central Pacific branch railroad via Oakland to San Francisco, total distance, 614 miles.

\* U. S. Military Telegraph Stations.

# **SCHNEIDER & ABEGG,**

WHOLESALE AND RETAIL

**Booksellers, Stationers and News Dealers,**

**Fifth St., San Diego.**

Also, dealers in Albums, BLANK Books, Foreign and Domestic Stationery, Wrapping Papers, Paper Bags,

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