

to be raked from the bottom, packed, and shipped to San Francisco, where it is ground and sold without any purification as the finest table salt. The pond is connected with a landing-place in Salinas Bay by a railway. There is a small village situated on the shingle beach that intervenes between the salt-pond and the head of the bay.

Cave.

At the top of a high cliff near Perico Point there is a natural cave, which is resorted to by the inhabitants of the village during the summer months to escape the heat, mosquitoes, and gnats.

Fish, turtle, and oysters.

Fish and turtle abound in the bay and beds of the long-shelled oyster are found there.

Variation.

The magnetic variation in 1878 was  $10^{\circ} 55'$  E., increasing about  $2'$  annually. Tides rise about  $3\frac{1}{2}$  feet.

Tides.

White Point.

White Point, at the south-western extremity of Salinas Bay, is a steep bluff point with a hill surmounting it; some outlying rocks extend off about a cable's length from it.

Gavelones Point.

Two miles south of White Point, the coast between being steep and rocky, is Gavelones Point, back of which, bearing about NW. by W., distant 1 mile, is a sharp peak, 1,491 feet high.

South of Gavelones Point the coast recedes somewhat and consists for the most part of steep bluffs. About  $2\frac{1}{2}$  miles from the point there is a small stream where it is said fresh water may be procured; there is a short strip of sand beach on either side of the mouth of the stream. A mile and a quarter farther south is the mouth of an arroyo known as Arroyo Blanco.

Colorado Point.

Colorado Point, which is a little over  $1\frac{1}{4}$  miles south of Arroyo Blanco, is a bluff point of moderate elevation and a reddish color. A sunken rock reported to lie off the point was carefully searched for, but could not be found; there are some detached rocks close to the point.

San Francisco Bay.

South of Colorado Point the coast recedes considerably, forming the open bay of San Francisco. After passing the point the bluffs become lower, finally terminating in a sand beach which extends to Punta Baja. As Punta Baja is approached shoal water makes off some distance from the land.

Coast north of Loreto.

North of Loreto the coast is low and sandy for a distance of about 4 miles, affording good anchorage anywhere, within half a mile of the beach, in from 3 to 7 fathoms of water.

At Tierra Firma Point a shoal with 3 fathoms water at its outer edge extends off about a quarter of a mile. Outside this shoal the soundings increase rapidly, 120 fathoms, rocky bottom, being found  $1\frac{1}{2}$  miles from the point. Three-quarters of a mile to the northward of Tierra Firma Point low bluffs commence to take the place of the sand beach, and a mile farther on is a low bluff point, with an arroyo on its southern side.

Tierra Firma Point. Shoal.

The nearest point of Coronados Island lies  $1\frac{1}{2}$  miles to the eastward of the low bluff point just mentioned. The island is irregular in form, being about  $1\frac{3}{4}$  miles long, north and south, by  $1\frac{1}{2}$  miles wide at its widest part; near the northern end it attains a height of 928 feet. A low spit of sand and stones extends three-quarters of a mile from its south-west side. Off the point of the spit there are some outlying rocks. With the exception of the sand spit just mentioned the shores of the island consist of steep rocky bluffs.

Coronados Isl. and.

Nearly in the centre of the passage between Coronados and the main-land is a low islet 3 cables in length by  $1\frac{1}{2}$  in breadth, surrounded by shoals. Between this islet and the main-land is a passage four cables in width, with a least depth of  $3\frac{1}{2}$  fathoms; to pass through, it is only necessary to keep in mid-channel. Between the islet and the SW. point of Coronados Island there is a passage a quarter of a mile wide, with 4 and 5 fathoms, rocky bottom. These passages are not recommended for vessels of any considerable size.

Passage.

To the northward of the low sand spit which makes off from the south-west side of Coronados Island is an excellent anchorage in which to ride out a south-easter.

Anchorage.

The coast north of Coronados Island is generally bold and rocky, with the exception of the fertile valley and plain of San Bruno; the land immediately back of it rises to a height of from 1,500 to 2,000 feet.

Coast north of Coronados Isl. and.

The mouth of San Bruno Creek lies 7 miles N.  $51^{\circ} 30'$  W. (NW. by W.  $\frac{1}{2}$  W. mag.) from the north point of Coronados Island. The course of the creek being, for  $1\frac{1}{2}$  miles above its mouth, nearly parallel to the coast line, and behind a narrow strip of land on which are some high hills, it is somewhat difficult to recognize unless close in. The entrance is very narrow and shoal water extends off from it about a quarter of a mile.

San Bruno Creek.

**Mangles Point.** Mangles Point is a moderately high bluff, with a bold hill, 100 feet high, rising abruptly from it. The point is the southern end of a succession of cliffs of variegated color, varying in height from 200 to 300 feet.

**Anchorage.** To the southward of the point there is good anchorage, with protection from north-westerly winds, in from 5 to 9 fathoms of water, a scant half mile from the shore.

**Rocks.** In making for the anchorage care must be taken to avoid some rocks, the highest of which is only 2 feet above high water, that lie  $2\frac{1}{4}$  miles S.  $16^\circ$  E. (SSE.  $\frac{1}{2}$  E. mag.) from the point, and about a mile from the nearest land to the westward. Coming from the northward and intending to anchor, vessels may haul close around the point, as there is plenty of water and no hidden danger.

**Wood and water.** Mangles anchorage is well known on the coast for the superior quality of wood that grows in the valleys near by.

**Variation.** It is said that fresh water can be obtained. The magnetic variation in 1878 was  $11^\circ 05'$  E., increasing about 2' annually. Tides rise from 3 to 4 feet. A conspicuous double peak,  $2\frac{3}{4}$  miles to the westward of Mangles Point, makes an excellent land-mark.

From Mangles Point to Pulpito Point, a distance of  $14\frac{1}{2}$  miles, the coast is generally steep to, with rocky bluffs and outlying rocks, the coast-range of mountains rising immediately back. The shore-line is very irregular, forming several prominent points, with intervening bays, where anchorage may be found.

**Mercenarios Point.** Mercenarios Point, lying  $4\frac{1}{4}$  miles to the northward of Mangles Point, is a rocky cliff of dark sand-stone, surmounted by a red cone 519 feet high. Three-quarters of a mile north-westward of Mercenarios Point is a short sandy point, with a jagged, rocky bluff 50 feet high at its end. Off this point, close to, are two small islets from 10 to 30 feet high, and a quarter of a mile east of it is a rock 6 feet above water. Between this rock and the shore  $7\frac{1}{2}$  fathoms of water were found.

The coast between the two points recedes a little and is a sandy beach, with an arroyo a little more than half way from Mercenarios Point.

**San Basilio Point.** San Basilio Point is a rocky cliff of red sand-stone, about 50 feet high, surmounted by a hill 450 feet in height. There

are a few outlying rocks near the point, with deep water close to them.

South of San Basilio Point there is a small open bay called San Juanico Cove, on the shores of which are some yellow bluffs and sand beaches; behind one of the latter there is a fine-looking valley, where, it is said, fresh water maybe procured. In the northern and western parts of the bay there are a number of detached rocks, both above and below water.

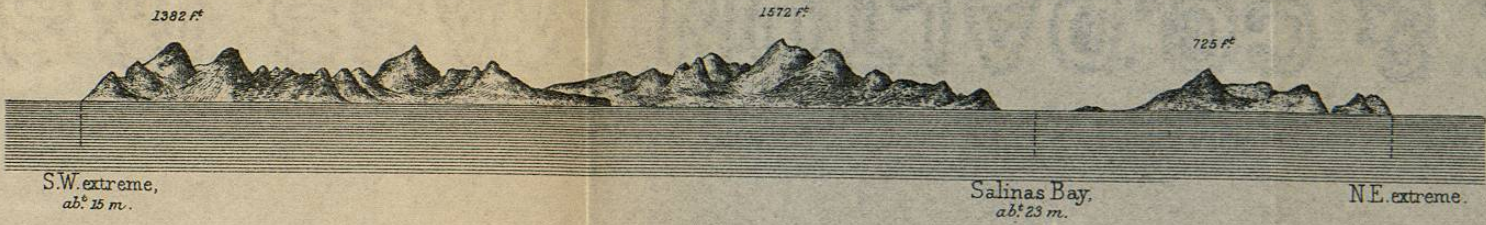
Northward of San Basilio Point the coast recedes considerably, forming the open bay of San Basilio, of which Gull Rock,  $2\frac{1}{2}$  miles S.  $21^\circ$  W. (S.  $\frac{7}{8}$  W. mag.) of Pulpito Point, may be considered the northern limit. The shores of the bay are low bluffs, alternating with sand and pebble beaches. Soundings a mile off shore gave no bottom at 15 fathoms.

Pulpito Point, so called from its imagined resemblance to a pulpit, is a bold headland about 500 feet high, and, when first seen from the southward, appears like an island, the land connecting it with the coast-range being low. There are some detached rocks, both above and below water, extending a cable's length off the point; outside of the rocks the water deepens suddenly to 15 and 20 fathoms. (View opposite page 98.)

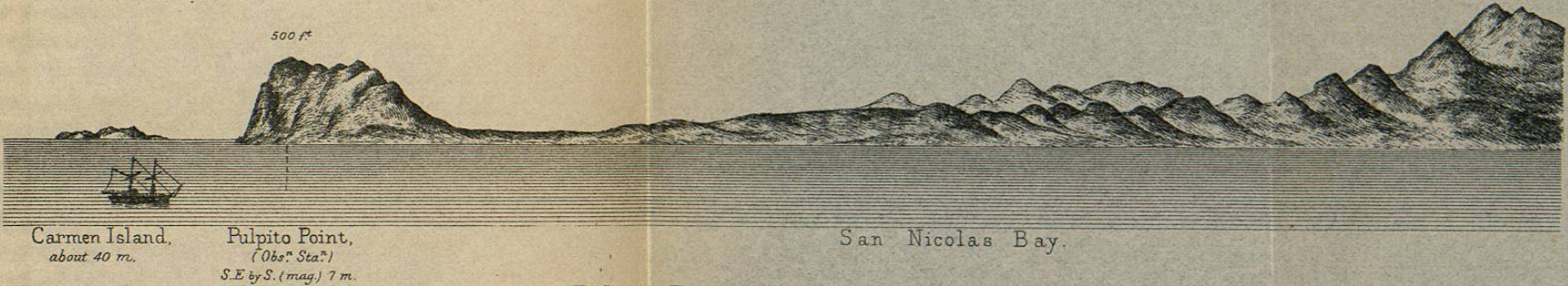
There is an excellent anchorage to the southward of the point, in from 5 to 10 fathoms of water, about a quarter of a mile from the beach, where a vessel will be well sheltered from the north-westerly winds. Along the western shore of the anchorage there are numerous outlying rocks, some of them over 300 yards off. In the northern bight there is a sand-beach and good landing place. A remarkable triple-peaked mountain, 1,640 feet high, lies  $3\frac{7}{10}$  miles S.  $51^\circ$  W. (SW.  $\frac{1}{2}$  S. mag.) from the highest part of Pulpito Point, affording a good land-mark. The magnetic variation at Pulpito Point in 1878 was  $11^\circ 10'$  E., increasing about 2' annually. Tides rise about 4 feet.

Santa Antonita Point, which is the south-eastern limit of San Nicolas Bay, is  $1\frac{1}{4}$  miles north-west of Pulpito Point. It is a low, rocky bluff, 15 feet high, with shoal water extending off it to the northward a quarter of a mile.

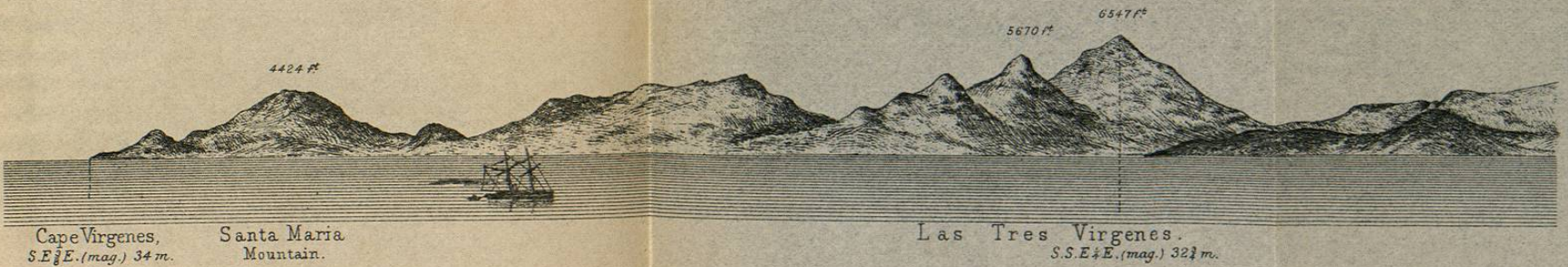
Northward of Santa Antonita Point the coast falls away to the westward, forming the large open bay of San Nicolas. The southern shore of the bay is low, the low-land extend-



Carmen Island, from the Southward.



Pulpito Point and adjacent land.



Las Tres Virgenes, from near San Carlos Point.

which a reef of rocks extends a little more than a quarter of a mile, with shoal water some distance outside of the reef. Five and a half miles westward from this point is a conspicuous mountain, of a whitish appearance, 2,434 feet high. Between the point just mentioned and Concepcion Point, a distance of over 11 miles, there are several minor points with outlying rocks a short distance off them. Soundings taken along this part of the coast, a mile off shore, show from 20 to 40 fathoms of water.

Concepcion Point is the northern extreme of the peninsula forming the eastern shore of Concepcion Bay. It is an ill-defined bluff point about 30 feet high, with numerous rocks lying off it to the northward and westward.

From Concepcion Point the coast trends to the south-westward about 2 miles, receding slightly to Aguja Point, which with San Domingo Point, four-tenths of a mile farther to the south-westward, forms the north-eastern point of the entrance to Concepcion Bay.

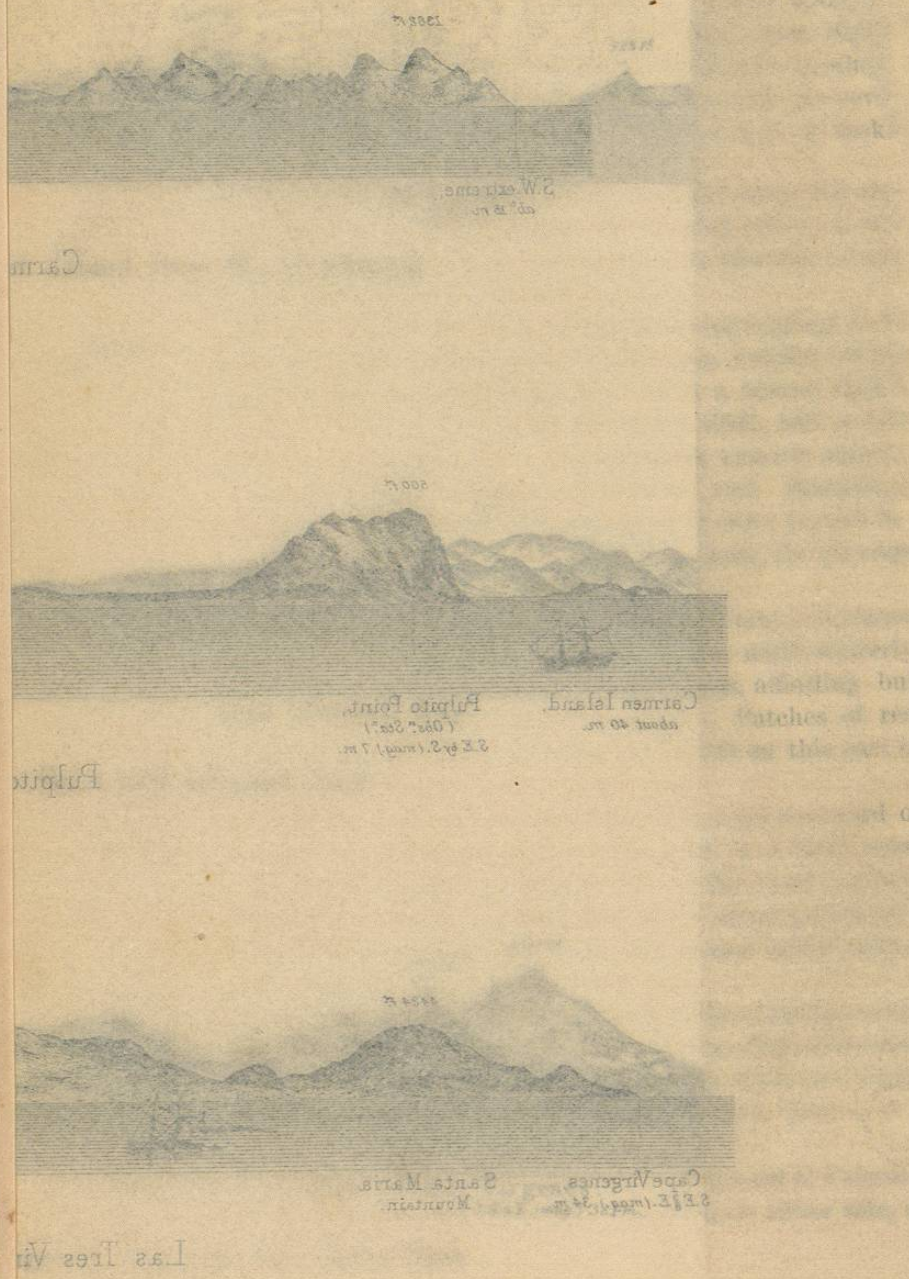
Aguja Point is a sharp rocky bluff with some detached rocks and shoal water a short distance off it.

Concepcion Bay, the entrance to which, between Aguja and Gallito Points, is  $3\frac{1}{4}$  miles wide, extends over 22 miles in a south-south-easterly direction and varies in width from 2 to 5 miles. There are several small islands in its western part and a number of anchorages where vessels may lie sheltered from all winds.

The eastern shore of the bay is regular in its outline, consisting of sand and pebble beaches, back of which the land slopes gradually toward the mountain range in the interior of the peninsula that lies between the bay and the Gulf of California. There are several low, projecting points, the most marked of which is San Ignacio Point, lying  $9\frac{3}{4}$  miles S.  $13^{\circ} 30' E.$  (SSE.  $\frac{1}{4}$  E. mag.) from San Domingo Point. Half a mile south-eastward from San Ignacio Point there is a ranch, near which is a small stream of fresh water. Except off Las Ornillas Point, and for a short distance on either side of it, where deep water is found close up to the shore, shoals extend off the entire length of the eastern shore for distances varying from a quarter to three-quarters of a mile.

The southern shore of the bay, known as La Pasajera, is like the eastern shore, low and sandy, the water shoaling

Plate XIII



Conspicuous Mountain.

Concepcion Point.

Concepcion Bay

La Pasajera.

gradually toward the beach. The road between Loreto and Mulege passes close along the southern shore and follows the general direction of the western shore of the bay, generally within a mile of the coast.

The western shore of the bay is very irregular in its outline, with many bluff points and intervening bights. Near the junction of the western with the southern shore of the bay there is a lagoon, at the entrance to which are some small islands and shoal water making off about half a mile. Near the western shore of the lagoon is a ranch and well.

La Tinaja  
Point.  
Well.

La Tinaja Point, about a mile to the northward of the entrance to the lagoon just mentioned, is famous for a well which supplies the best fresh water found near the shores of the bay. The well is situated just above the high-water mark, and is 2½ feet deep by 20 inches in diameter; the sides are of clay and gravel, and the bottom of rock. The water in the well rises and falls with the tide, but is quite fresh. The road between Mulege and Loreto passes close by the well, which is a favorite halting place for travelers.

Road.

From La Tinaja Point the coast-line is nearly straight, and is low and sandy with deep water close to the shore for a little over 3 miles, to Frigoli Point, which is a sharp bluff point 40 feet high. After passing Frigoli Point the coast becomes low and sandy again, with shoal water extending off nearly half a mile; near the point are several openings to an *estero*.

Frigoli Point.

Ricason Island. Ricason Island lies 1½ miles in a north-westerly direction from Frigoli Point. It is half a mile long NW. and SE., about a cable in width, and 50 feet high. A narrow sand-spit, which is only partially covered at ordinary high tides, connects it with the main-land. To the westward of the island, on either side of the sand-spit, the water is shoal.

Ranada Point.

Four-tenths of a mile west of Ricason Island is a low, bluff point at the foot of some hills, known as Ranada Point. From this point the coast makes a sweep to the westward, forming a small bay, the shore of which is a sand beach. There is a ranch near the beach in the northern part of the bay, just south of which is the mouth of an *estero*. Fresh water of an inferior quality may be obtained near the *estero*. The coast for about 3 miles to the north-westward of the small bay just mentioned is a series of bluffs, with hills from 100 to 300 feet high, back of them.

Coyote Bay, which is about 3½ miles in extent north and south, and 1½ miles east and west, has a number of islets and rocks with surrounding shoals within its limits, making its navigation, especially in the northern part, somewhat difficult.

Coyote Bay.

Bargo Island is a barren rocky islet, 100 feet high, lying in the southern part of Coyote Bay, 4 cables from the nearest land to the southward. In the passage between it and the main-land there is from 7 to 10 fathoms of water. There are some large outlying rocks to the westward of the island. Guapa Island lies three-quarters of a mile directly east of Bargo Island. It is 80 feet high and is surrounded by sunken rocks.

Bargo and Guapa Islands.

To the southward of the two islands just mentioned, about 6 cables distant from either, and 3 cables from the point at the southern limit of Coyote Bay, is a solitary rock about 50 feet high.

Rock.

In the northern part of Coyote Bay, there are several small islets surrounded by reefs and sunken rocks. They are generally from 30 to 40 feet in height, and in the channels between them, which are narrow and not thoroughly surveyed, the soundings show from 5 to 10 fathoms water.

Islets and rocks.

At the northern limit of Coyote Bay is a point formed by a bold, rocky hill 200 feet high, connected with the main-land by a low, narrow strip of sand. Shoal water extends for some distance off this point in all directions.

San Pedro Point is a bold headland about 100 feet high lying 3 miles to the northward of the point at the northern limit of Coyote Bay, at the narrowest part of Concepcion Bay. Shoals make off a considerable distance on either side of the point, and for a distance of about 2 miles north and south of it the navigable channel is not over 1¼ miles wide. For about 2 miles to the northward of San Pedro Point the shore is a low pebble beach, then come bluffs of a moderate height for about 1½ miles, succeeded by a sand beach that extends to within a mile of Gallito Point.

San Pedro Point.

Gallito Point is the north-western point of the entrance to Concepcion Bay. It is a conically shaped rock connected with the main-land by a low strip of sand, and surrounded by shoal water.

Gallito Point.

A sunken rock, with 3 fathoms of water over it, is reported

Reported rock.

- as lying about a mile to the north-eastward of Gallito Point, and nearly on a line between Aguja and Sombrerito Points. Diligent search was made for it without success, the soundings in the vicinity showing from 15 to 19 fathoms of water.
- Equipalto Rock.** From Gallito Point the coast for  $2\frac{1}{4}$  miles, to Equipalto Rock, is low and sandy. Equipalto Rock, which is at the south side of the mouth of the Santa Rosalia River, is similar in character to Gallito Point. The land back of it is low and swampy, with several small lagoons. An extensive shoal which makes off from the mouth of the river extends along the shore to the south-eastward  $1\frac{1}{4}$  miles from Equipalto Rock, its outer edge being full three-quarters of a mile from the land throughout the entire distance.
- Shoal.**
- Sombrerito Point.** Sombrerito Point is a pyramidal shaped rock 119 feet high, standing on a round pedestal, at the north side of the mouth of the Rio Santa Rosalia. The land back of the point is low and sandy for a short distance.
- Colorado Peak.** Colorado Peak, 836 feet high and of a reddish color, lies about  $1\frac{1}{4}$  miles to the westward of Sombrerito Point, and is an excellent land-mark when making for Mulege anchorage.
- Mulege anchorage.** Between Sombrerito Point and Prieta Point, which lies three-quarters of a mile to the northward, is the anchorage of Mulege. In standing in for the anchorage, as soon as Colorado Peak is made out, steer for it, being careful not to get it on a bearing south of N.  $84^{\circ} 22'$  W. (W.  $\frac{1}{2}$  S. mag.), as there is much foul ground near the coast south of that line of bearing, and anchor in from 5 to 7 fathoms, half a mile from the beach.
- Mulege.** Mulege was formerly the mission of Santa Rosalia de Moleje, and is situated on the bank of a fresh-water stream (Rio Santa Rosalia), a little over 2 miles from its mouth. It is a small, straggling village, the inhabitants of which, variously estimated at from 500 to 1,000 in number, are engaged principally in mining, pearl-fishing, and raising and exporting fruits. They are much more enterprising than the majority of the inhabitants of the peninsula.
- Supplies.** Wood, water, and excellent fresh beef may be procured at all times, as well as many varieties of vegetables and fruit in their season. Game is abundant in the mountains back of the village, and the wines of Mulege are famous, resembling heavy port and claret.
- Remarks.** Moderate quantities of sulphur are found in the vicinity,

and gypsum, generally in its crystallized form of selenite, occurs in many places. The mining districts are said to contain gold, silver, and alabaster. Pearl-fishing was formerly carried on to great advantage, many beds of pearl oysters having existed in the neighboring waters.

It is high water, F. and C., at the mouth of the Rio Santa Rosalia at VII<sup>a</sup> (approx.). Tides rise about  $3\frac{1}{2}$  feet. The magnetic variation in 1878 was  $11^{\circ} 15'$  E., increasing about  $2'$  annually.

Prieta Point, just north of Mulege anchorage, is a low bluff of dark color, with shoal water extending off it a short distance to the north-westward.

Colorado Point, which may be considered the southern limit of Santa Inez Bay, is a mile to the north-westward of Prieta Point, and is a reddish bluff of moderate height lying at the foot of a lateral spur of hills.

North of Colorado Point the coast sweeps to the westward, forming the large open bay of Santa Inez, of which Santa Inez Point is the northern limit. The shore of the bay is generally low and sandy, with low hills a short distance back. Near Santa Inez Point there are some conspicuous barren table hills, the highest of which, known as Barracas Table, is about 300 feet high. The soundings in the southern part of the bay show from 5 fathoms near the shore to 18 or 20 fathoms or over at about  $1\frac{1}{2}$  miles off; in the northern part the water is much shoaler; not more than 3 fathoms will be found at three-quarters of a mile from the shore, deepening to 5 and 8 fathoms between the main-land and the Santa Inez Islands.

Five and a half miles N.  $26^{\circ} 15'$  W. (NW.  $\frac{5}{8}$  N. mag.) from Colorado Point there is a monument standing on the beach, which marks the southern boundary of a tract of land (Santa Magdalena plains) which has been acquired by a company organized in San Francisco for the purpose of founding a colony.

The plains of Santa Magdalena are several miles in width and extend along the coast to the northward. It is said that there is not a drop of fresh water to be found on them, and not an acre of land that can be cultivated, so thickly is the surface covered with rocks. It is hardly necessary to say that the proposed colony has never been established.

The old mission of Guadalupe was situated on the north-

Tides.

Variation.

Prieta Point.

Colorado Point.

Santa Inez Bay.

Barracas Table.

Monument.

Santa Magdalena Plains.

Mission of Guadalupe.

ern edge of Magdalena plain, at the mouth of San José Cañon. The remains of an extensive aqueduct, constructed for irrigating purposes, are still to be seen there. The mission buildings are entirely destroyed.

**Santa Inez Point.** Santa Inez Point, sometimes called Cape Barracas, marks the northern limit of Santa Inez Bay. It is low and rocky, with a small hill surmounting it. Half a mile to the westward of the point, in the bay, are some outlying rocks.

**Anchorage.** Anchorage may be obtained under the lee of the point, sheltered from the north-westerly winds, in from 4 to 5 fathoms water, half a mile from the shore.

**Santa Inez Islands.** The Santa Inez Islands, three in number, lie to the south-eastward of the point of the same name. They are surrounded by shoals and sunken rocks, but between them and the point there is a clear passage, through which from  $4\frac{1}{2}$  to 5 fathoms may be carried. The southernmost and largest of these islands is seven-eighths of a mile long, a third of a mile wide, and 30 feet high. Its southern point is low and rocky, with shoal water extending some distance off from it.

The northernmost of the islands is 15 feet high and small in extent; its centre bears S.  $69^{\circ}$  E. (E.  $\frac{7}{8}$  S. mag.) from Santa Inez Point, distant 2 miles.

**Shoal.** Directly west of the south-easternmost island, its centre about a mile distant from it, is a shoal  $1\frac{1}{4}$  miles long NNW. and SSE. and half a mile wide, with only 3 fathoms of water over it.

Eastward of this group of islands the water deepens quickly.

**Chivato Point.** Chivato Point is a low bluff, with many detached rocks lying off it, and table-land from 40 to 60 feet high back of it. It lies  $1\frac{3}{4}$  miles to the northward of Santa Inez Point, the intermediate coast being bluff, with a few outlying rocks.

From Chivato Point the coast falls away to the westward, its general trend as far as the entrance of San Lucas Cove, a distance of  $14\frac{1}{2}$  miles, being N.  $65^{\circ}$  W. (WNW.  $\frac{3}{4}$  W. mag.). The shore is generally low and sandy, with occasional bluffs; back of it the land slopes gradually to the mountains in the interior, which are upwards of 3,000 feet high.

**San Marcos Island.** San Marcos Island lies off this part of the coast. It is a barren, extremely hilly island, about  $5\frac{1}{2}$  miles long in a general NNW. and SSE. direction, varying in width from  $1\frac{1}{4}$  to

$2\frac{1}{2}$  miles. The highest peak, nearly in the centre of the island, is 891 feet high.

The east face is for the most part composed of rocky bluffs, varying in height from 20 to 300 feet. Near the SE. extremity there is a strip of sand and gravel beach about a mile long, and there is a similar one, three-quarters of a mile long, on the NE. face. Off this latter beach are a number of outlying rocks, and a rocky reef extends a short distance off from the easternmost point.

Off the north point, which is surmounted by a sharp hill, are three white islets, varying in height from 20 to 40 feet, and a number of detached rocks which extend northward nearly half a mile.

The NW. face is of steep bluffs, with many outlying rocks, of which the two most conspicuous are 25 and 40 feet high. From the western extremity of the island to the south point the coast is of sand beaches and bluffs from 15 to 20 feet high, the land sloping from the hills in the interior.

The south point of the island is a low sand-spit nearly half a mile long, from which a rocky shoal extends  $1\frac{1}{4}$  miles to the southward. Eastward of the low sand-spit the south coast of the island is a series of perpendicular bluffs about 30 feet high, with shoal water extending off nearly half a mile.

There is good anchorage off the south end of the island, eastward of the low sand-spit, in from 5 to 7 fathoms of water.

Fresh water may be obtained near the northern end of the island, and an abundance of goat's flesh may be had for the trouble of shooting the animals.

There are extensive deposits of gypsum on the island. It is massive and crystalline (alabaster), in layers entirely exposed, from 25 to 50 feet thick. It could be worked with great facility and would probably yield large profits. Pumice stone is found in several localities, and one of the hills is said to be composed entirely of talc. In the waters surrounding the island are several beds of the pearl oyster.

Lobos Rock, which is about a quarter of a mile long NNW. and SSE., and 20 feet high, lies half a mile S.  $38^{\circ}$  E. (SE.  $\frac{1}{2}$  E. mag.) from the southern point of San Marcos Island. Numerous sunken rocks surround it, and not over  $1\frac{1}{2}$  fathoms can be carried through the passage between it and San Marcos.

East side.

North Point.

West side.

South side.

Anchorage.

Fresh water.

Remarks.  
Gypsum, pum-  
ice stone, &c.

Lobos Rock.