

the remainder of the day being clear and pleasant. South of Cerros Island there is much less fog than north of it, the weather clears earlier in the forenoon, the temperature is lower, and the winds lighter.

Currents.

The currents along the coast set in the direction of the prevailing wind, and vary in strength from half a knot to a knot per hour. Near the land the influence of the tides is felt. *At all times an easterly set should be guarded against.* A very slight NW. current has occasionally been found in the winter season, but it is of rare occurrence.

CHAPTER I.

FROM THE BOUNDARY MARK BETWEEN THE UNITED STATES AND MEXICO TO POINT SAN EUGENIO, INCLUDING CERROS, NATIVIDAD, AND THE SAN BENITO ISLANDS.

The boundary line between the United States and Mexico is marked by a white marble obelisk about 20 feet high, resting on a pedestal. It stands on a low table land near the edge of the bluff, about 300 yards from the beach, and is plainly visible from the water. Its geographical position, as determined by the *U. S. Coast Survey* in 1871, is Lat. $32^{\circ} 31' 58''.46$ N., Long. $117^{\circ} 07' 32''.37$ W., about $10\frac{2}{5}$ miles S. $36^{\circ} 30'$ W. (true) from Point Loma light-house. This monument marks the north-western initial point of the survey of the "Coast of Mexico from the northern boundary to Cape Corrientes, including the Gulf of California," by Commander George Dewey, in the *U. S. S. Narragansett*.

Boundary monument.

The Coronados Islets are a group of barren rocks of trap formation lying about 7 miles off the coast and extending about 5 miles in a NW. and SE. direction. The southernmost is the largest and is 2 miles long by half a mile in width; it is wedge-shaped, and its highest peak is 674 feet above the sea level. The south-eastern extremity of the group bears S. $34^{\circ} 30'$ W. (S. by W. $\frac{3}{4}$ W. mag.), distant $10\frac{1}{2}$ miles from the boundary monument and S. 2° E. (S. by E. $\frac{1}{2}$ E. mag.), 17 miles distant from Point Loma light-house. On the west and north-west sides of the southern islet, at a distance of three-quarters and one-half a mile respectively, are two barren rocks about 50 feet high that are a favorite resort for the enormous sea elephants that frequent this coast. N. $62^{\circ} 30'$ W. (WNW. $\frac{1}{2}$ W. mag.) from the northern end of the largest islet, at a distance of $2\frac{1}{2}$ miles, lies the north-westernmost of the group, a barren rock about 7 cables in length, and 350 feet high. Between this islet and the others is a passage with from 18 to 50 fathoms water and numerous patches of growing kelp.

Los Coronados.

Rocks.

Anchorage and landing. A fair anchorage may be found on the east side of the largest islet, a little north of its center, in 8 fathoms water, sandy bottom. Boats may safely land in a small cove near the anchorage, which is open to the northward.

Coast from the boundary monument to Descanso Point. From the boundary monument the coast trends S. 30° E. (S. by E. $\frac{1}{2}$ E. mag.) 5 miles; thence S. 23° E. (SE. $\frac{3}{4}$ S. mag.) to Descanso Point, it is generally bluff from 50 to 80 feet high. A few miles inland is a range of hills about 400 feet in height, and back of these a range of mountains, one of which, Table Mountain, is 2,230 feet high, and another, a triple-peaked mountain, a few miles south of Table Mountain, called Sharp's Peak, is 2,700 feet high. They are easily distinguished, and are excellent landmarks in approaching the coast. (View opposite, page 6.)

Landmarks

Four miles north of Descanso Point are a ranch and an arroyo, off which are some outlying rocks at a short distance from the shore.

Descanso Bay. From Descanso Point the coast turns sharply to the eastward for about 3 miles, and then curves gradually around to the southward, forming Descanso Bay. Three and a half miles S. 52° E. (SE. by E. $\frac{3}{4}$ E. mag.) from Descanso Point is the Sugar-loaf Rock, a small rock about 15 feet high, which is apparently the only outlying danger in the bay. **Anchorage.** There is an anchorage to the southward of it, often used by the small coasters, and anchorage may be found anywhere along the shore of the bay in from 8 to 15 fathoms, sand bottom. S. 63° E. (E. by S. $\frac{1}{4}$ S. mag.) 6 $\frac{1}{2}$ miles from Descanso Point is a small settlement near the shore, which may be recognized by conspicuous sand hills to the northward of it. Small vessels frequently anchor near it.

Sal-si-puedes Point. Sal-si-puedes Point is low and not well defined. It is 16 miles S. 26° 30' E. (SE. $\frac{1}{2}$ S. mag.) from Descanso Point. The intermediate coast is generally sandy, with an occasional rocky cliff and high hills rising immediately back of the beach. Soundings taken at a distance of 3 miles from the shore gave *no bottom* at 40 fathoms.

Cape San Miguel. Cape San Miguel is the northern limit of Todos Santos Bay, and is a bold point 150 feet high. It bears S. 40° E. (SE. $\frac{3}{4}$ E. mag.) from Sal-si-puedes Point, and is 10 $\frac{1}{2}$ miles distant from it. The intermediate coast consists of alternate sand bluffs and rocky cliffs about 50 feet high, backed

by hills of from 300 to 500 feet in height, and a mountain range of 2,000 feet and upwards a few miles inland. This latter has the appearance, to a person a few miles at sea, of bordering on the coast.

S. 62° E. (ESE. $\frac{5}{8}$ E. mag.) from Cape San Miguel, at a distance of 6 $\frac{1}{4}$ miles, is Ensenada Point, a steep hill 370 feet high. The coast between them is bold, with cliffs from 50 to 100 feet in height. A large field of kelp extends from 2 $\frac{1}{2}$ to 3 miles off the point to the westward, having from 13 to 16 fathoms water at its southern edge.

From Ensenada Point the coast turns sharply to the northward and eastward for about half a mile, forming a snug anchorage, where vessels may lie in from 3 to 5 fathoms water, sand bottom, sheltered from all winds except those from the SW. H. W., F. and C., IX^h (approx.); tides rise about 4 feet. The magnetic variation in 1877 was 13° E., increasing about 2' annually.

From Ensenada anchorage the land sweeps around in a semicircular form to Banda Point, which is a bold rocky headland 500 feet high, forming the south-western limit of Todos Santos Bay. At the bottom of the bay is a low sand beach, about 2 $\frac{1}{4}$ miles in extent, flanked on the north by a range of hills 500 feet high, and on the west by the cliffs of Banda Point. Numerous detached rocks line the southern shore of the bay, and a rocky ledge extends about three-quarters of a mile to the northward and westward from Banda Point. About 3 miles to the eastward of the point there is a whaling station, off which good anchorage may be had in from 3 to 10 fathoms, sand bottom. Numerous patches of kelp are found in the bay and lining the beach.

The Todos Santos Islands lie N. 36° W. (NW. $\frac{1}{2}$ W. mag.) from Banda Point, the south-eastern end of the southernmost and larger of the two being about 3 miles distant from it. From this point they extend about 2 miles in a north-westerly direction. The southernmost is about 1 $\frac{1}{4}$ miles long, less than half a mile wide, and 374 feet high. Between it and Banda Point there is a clear channel 2 miles wide. The northernmost island is about half a mile long, a quarter of a mile wide, and from 30 to 60 feet high. Both are barren, and surrounded by detached rocks and kelp. There is a boat passage between them, and anchor-

Ensenada Point.

Kelp.

Anchorage.

Tides.

Variation.

Todos Santos Bay.

Whaling station.
Anchorage.

Todos Santos Islands.

Channel.

Anchorage.

age may be found in good weather on the north-eastern side of the larger one in 10 fathoms, sand bottom, the NW. extremity of the island bearing west.

Point Santo Tomas.

Point Santo Tomas lies 12 miles S. 14° E. (SSE. $\frac{1}{2}$ E. mag.) from Banda Point. The coast between them is in crescent form, high and precipitous, with deep water close to the shore, and numerous detached outlying rocks. The point itself is low and rocky, rising abruptly to a height of 395 feet where it unites with the coast range, which attains at a few miles from the coast a height of 3,500 feet.

Soledad Rocks.

The Soledad Rocks lie one mile west of Point Santo Tomas. They are 20 feet high, small in extent, and surrounded with kelp. There is deep water close to them, except on the northern side, where, at a distance of one-quarter of a mile, $8\frac{1}{2}$ fathoms were found, rocky bottom, and thick masses of growing kelp. There is a channel between the rocks and Santo Tomas Point, with 30 fathoms water and no *known* dangers. In passing through it care should be taken to keep clear of the kelp on either side.

Channel.

Santo Tomas anchorage.

Half a mile to the southward of Point Santo Tomas the coast makes a sharp turn to the eastward, forming a small bight, where good anchorage may be found in from 5 to 10 fathoms, sandy bottom, sheltered from the prevailing coast winds. When making for the anchorage from the northward or westward give the land to the southward of Point Santo Tomas a berth of from a quarter to half a mile, to avoid the dense masses of kelp found there; stand to the eastward until a small sand beach, with a few outlying rocks at its southern end, to the northward of the inner point, is open; then haul up to the northward and anchor as soon as the Soledad Rocks are shut in. Coming from the southward there are no outlying dangers; steer for the deepest bight until the small sand beach is made out; then follow directions given above. This will place you in from 7 to 8 fathoms water, sand bottom, within a quarter of a mile of the landing place, which is on the small strip of sand beach. At the time of the *Narragansett's* visit there was a rough board building near the inner point, which was used as a whaling station. H. W., F. and C., IX^b (approx.); tides rise about 6 feet. The magnetic variation in 1877 was

Whaling station.

Tides. Variation.

tides rise about 6 feet. The magnetic variation in 1877 was

12° 59' E., increasing page 6.)

The village of Plate I remarkably fertile valley miles by the road from valley, wherever water of the tropics is abundant, requiring little irrigation. The Santo Tomas village, built on the porous soil of Lower California.

as ducks, quail, snipe, &c. (see page 6.) The river in the winter. The coast along the coast for about after which it follows the the village of Santo Tomas.

Cape Colnett is a remarkable 26° 30' E. (SE. $\frac{1}{2}$ S. mag.) semi-circular in form with 150 feet high, of a very base of light sandstone. It extends for about 10 miles to the opposite page.

The coast is very precipitous and low beaches. Soledad NW by $W\frac{1}{2}W$.

the perpendicular ends of the cape. There is a good deep the entire distance and no kelp extends about 2½ miles than 13 fathoms water we land the coast range attains feet. About 5 miles from (N. $\frac{1}{2}$ W. mag.) from Cape Colnett. Although practical traces of former thrift in the buildings, the famous grove irrigating ditches that wind the valleys.

From Cape Colnett the

Colnett, 9.) - 5 miles.

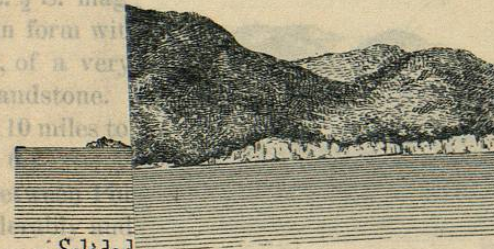
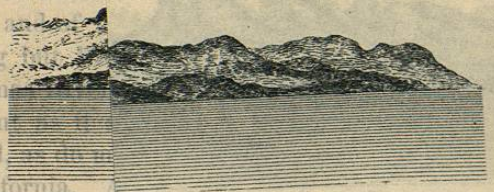
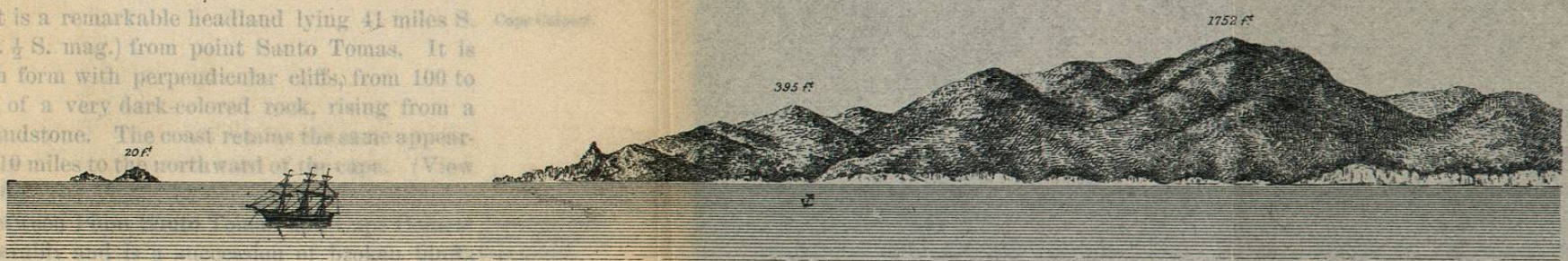




Table Mountain (near San Diego). *E by N ½ N. (mag.) 9 m.*

Sharp Peak, (*E ½ S. mag. 10 m.*)

Off the coast, to the northward of Descanso Point.

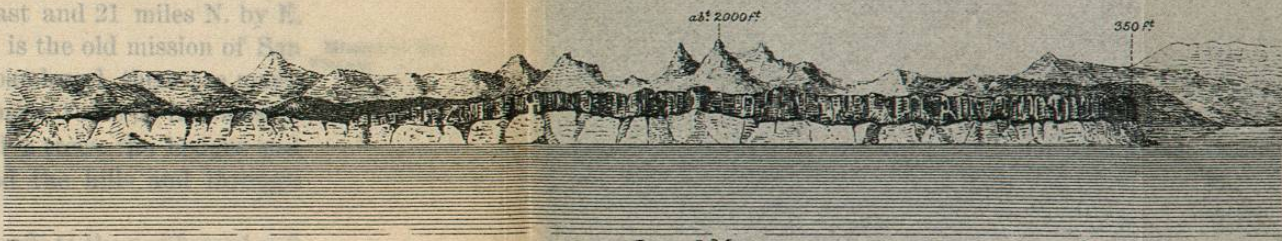


Solèdad Rocks, *NW by W ½ W. (mag.) 3 ½ m.*

Point Santo Tomas, *NW ½ N. (mag.) 2 ½ m.*

Anchorage, *N.N.W. (mag.) 1 ½ m.*

Off the coast, to the southward of P^t Santo Tomas.



Jagged Mountain.

Cape Colnett, *E ½ S. (mag.) 5 miles.*

Off Cape Colnett.

12° 50' E., increasing about 2' annually. (View opposite page 6.)

The village of Santo Tomas, formerly a mission, lies in a remarkably fertile valley, about 16 miles from the coast (18 miles by the road from the anchorage). Throughout the valley, wherever water can be had for irrigation, the fruits of the tropics and of the temperate zone flourish side by side, requiring but little care except a supply of water. The Santo Tomas River furnishes a good supply of water to the village, but as it approaches the coast disappears in the porous soil, as do most of the streams of the peninsula of Lower California. An abundance of small game, such as ducks, quail, snipe, &c., was found near the banks of the river in the winter. The road from the anchorage runs along the coast for about 2 miles, until it strikes the river, after which it follows the general course of the stream to the village of Santo Tomas.

Cape Colnett is a remarkable headland lying 41 miles S. 26° 30' E. (SE. $\frac{1}{2}$ S. mag.) from point Santo Tomas. It is semi-circular in form with perpendicular cliffs, from 100 to 350 feet high, of a very dark-colored rock, rising from a base of light sandstone. The coast retains the same appearance for about 10 miles to the northward of the cape. (View opposite page 6.)

The coast between Point Santo Tomas and Cape Colnett recedes considerably and is a succession of broken bluffs and low beaches to within 10 miles of Cape Colnett, where the perpendicular cliffs commence and extend around the cape. There is a good depth of water along the coast for the entire distance and no outlying dangers. A patch of kelp extends about 2½ miles off San José Point, but not less than 13 fathoms water were found in it. A few miles inland the coast range attains an elevation of 1,500 to 2,000 feet. About 5 miles from the coast and 21 miles N. by E. (N. $\frac{1}{8}$ W. mag.) from Cape Colnett is the old mission of San Vicente. Although practically abandoned, there are many traces of former thrift in the extensive ruins of the mission buildings, the famous grove of olive trees, the hedges and irrigating ditches that wind around the hills and through the valleys.

From Cape Colnett the coast trends to the northward and

Santo Tomas.

Fruit.

Game.

Cape Colnett.

Coast from Point
Santo Tomas to
Cape Colnett.

Kelp.

Mission of San
Vicente.

Table Mountain (near)

Off the coast

Point Santo Tomas
(N.W. mag.) 24 m.

Solides Rocks

N.W. mag. 34 m.

Off the coast to

Cape
Colnett

Colnett Bay, anchorage, landing place, &c. eastward about $2\frac{1}{2}$ miles, forming Colnett Bay, where good anchorage may be found abreast of a remarkable gorge, in from 6 to 9 fathoms water, sand bottom. The best landing place is at the intersection of the cliffs and the shingle beach at the bottom of the bay. The magnetic variation in 1877 was $12^{\circ} 55'$ E., increasing about $2'$ annually.

Variation.

San Ramon Bay.

South of Cape Colnett the coast sweeps around to the eastward, forming what is called on the charts San Ramon Bay, the land is lower than to the north of the cape, and consists of sand hills varying in height from 25 to 100 feet. For a distance of 15 or 18 miles after leaving the anchorage, fields of kelp make off from the shore about 3 or 4 miles, thence to abreast San Martin Island the coast is clear, the water is shoaler than northward of the cape, but there are apparently no outlying dangers.

Kelp.

San Martin Island.

San Martin Island (*Las Virgenes of Sir E. Belcher*) lies 30 miles S. 24° E. (SE. $\frac{3}{4}$ S. mag.) of Cape Colnett. It is nearly circular in form, having its greatest diameter ($1\frac{1}{2}$ miles) in an east and west direction. There are two remarkable peaks near the center, the westernmost of which, 497 feet high, is an *extinct volcano*, having a crater at its summit 350 feet in diameter and 40 feet deep. The island is quite barren, producing nothing but the prickly pear and a few stunted bushes that grow among the loose masses of lava.

Anchorages.

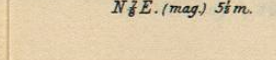
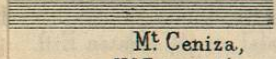
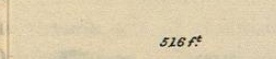
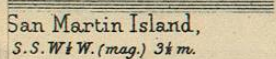
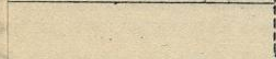
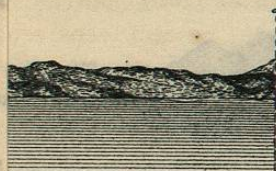
There is a good anchorage on the south-east side of the island, off a small lagoon which has communication with the sea at half tide, and anchorage may be found anywhere on the north-east side. The best place to anchor is in *Hassler Cove*, a snug little bight on the eastern side of the island, protected on all sides except the north. Anchor in from 7 to 9 fathoms, the northern end of the natural breakwater that forms the east side of the cove, bearing S. $57^{\circ} 30'$ E. (ESE. $\frac{1}{4}$ E. mag.) The island is surrounded by detached rocks and kelp, and great numbers of seal and sea fowl resort to it, particularly to the shores of the cove and lagoon. The magnetic variation in 1877 was $12^{\circ} 55'$ E., increasing about $2'$ annually. Neap tides rise 4 feet.

Variation.

Tides.

Ben's Rock.

A dangerous rock, known as Ben's Rock, with from 9 to 12 feet water over it, lies $2\frac{5}{8}$ miles south of San Martin Island and $4\frac{1}{8}$ miles from the main land, on the following bearings, viz: Western peak of San Martin Island N. $2^{\circ} 45'$ W. (N.



497 ft

San Martin Island,
S. S. W & W. (mag.) $3\frac{1}{4}$ m.

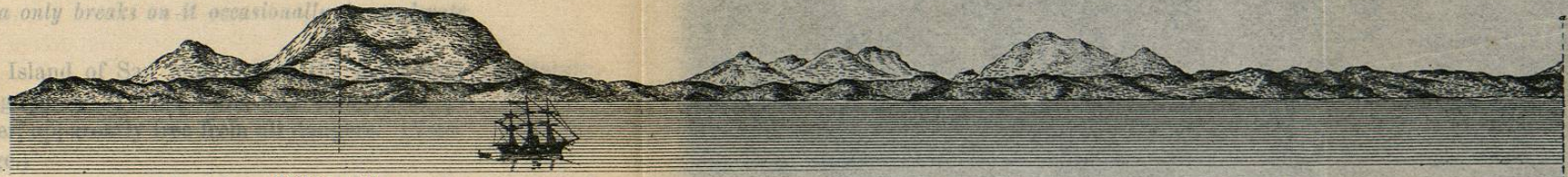
516 ft

Mt Ceniza,
N & E. (mag.) $5\frac{1}{8}$ m.

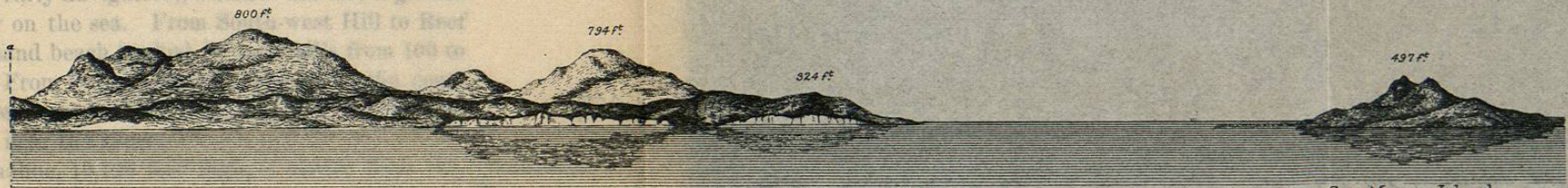
fathoms water close to the rock and 23 fathoms from it. There is no kelp surrounding this rock only breaks on it occasionally.

Island of San

an extremity of San Ramon. *E 2 N. (mag.) 2 1/2 m.* San Martin Island the coast rises suddenly in a cliff of dark-colored rock from 150 to 200 feet at 1 1/2 miles in extent, its southern end bearing true from the highest peak of San Martin at this point the coast is a low sand beach for 1 1/2 miles old rocky cliffs to South-west Hill (one of the early navigators), which is 324 feet high and on the sea. From South-west Hill to Reef Point and beyond the coast is low and sandy.



Off the coast, to the northward of San Martin Island.



Reef Point,
S. E. by S 1/2 S. (mag.) 10 1/2 m.

San Martin Island,
S. S. W 1/2 W. (mag.) 3 1/2 m.

the northernmost of a series of rocky points from the southern entrance of the bay on the western side of Port San Quentin. A distance of from the point to the westward about one mile. (View on opposite page.)

Point to Cape San Quentin the coast is low with numerous projecting points and outlying rocks which the sea breaks heavily. There is a short beach, about a cable in length, just west of the point, and a small bay, which is the southern entrance to the bay. The point, which is the southern extremity of the island, lies 8 miles to the westward. From the point to the westward.



San Martin Island,
N. W. 1/2 W. (mag.) - 9 1/2 m.

Southwest Hill,
N by W 1/2 W. (mag.) 4 1/2 m.

Kenton Hill.

Mt. Ceniza,
N 1/2 E. (mag.) 5 1/2 m.

Off Reef Point, near Cape San Quentin.



San Martin Island.
Off the coast to



Coast south of San Ramon Bay.



Hill near San Martin Island.
N.W. (mag.) 2 1/2 m.

Plate II

where good
to gorge, in
at landing
angle beach
sea in 1877

and to the
San Ramon
cape, and
100 feet.
anchorage,
or 4 miles,
clear, the
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Martin Isl-
ing bear-
N.W. (N.

by W. $\frac{3}{4}$ W. mag.), Mount Ceniza N. $85^{\circ} 30'$ E. (ENE. $\frac{1}{2}$ E. mag.), the latter being just open to the southward of south-west hill on this bearing.

There are 5 fathoms water close to the rock and 25 fathoms 200 yards from it. *There is no kelp surrounding this rock, and the sea only breaks on it occasionally in moderate weather.*

Between the Island of San Martin and the main land there is a passage about $2\frac{1}{2}$ miles wide, with from 10 to 15 fathoms of water, apparently free from all dangers. (View on opposite page.)

At the southern extremity of San Ramon Bay and nearly abreast of San Martin Island the coast rises suddenly in a perpendicular cliff of dark-colored rock from 150 to 200 feet high and about $1\frac{3}{4}$ miles in extent, its southern end bearing nearly east (true) from the highest peak of San Martin Island. From this point the coast is a low sand beach for $1\frac{1}{2}$ miles, then bold rocky cliffs to *South-west Hill* (one of the five hills of the early navigators), which is 324 feet high and borders directly on the sea. From South-west Hill to Reef Point is a low sand beach backed by sand hills from 100 to 150 feet high. From Cape Colnett to Reef Point the coast is apparently free from outlying dangers, with a moderate depth of water near the shore.

Mount Calamahue, 10,126 feet high, is visible from this vicinity.

Reef Point is the northernmost of a series of rocky points extending out from the southern extremity of the peninsula that forms the western side of Port San Quentin. A reef extends off from the point to the westward about one-quarter of a mile. (View on opposite page.)

From Reef Point to Cape San Quentin the coast is low and rocky, with numerous projecting points and outlying rocks over which the sea breaks heavily. There is a short strip of sand beach, about a cable in length, just west of Cape San Quentin, and Afuera Point, which is the southernmost point of land, lies 3 cables to the westward. From Cape San Quentin the low rocky beach continues for a little more than three-eighths of a mile to the northward and eastward, thence to Entrada Point is a low sand beach with one projecting rock $1\frac{1}{2}$ cables south-west of the point.