

CHAPTER II.

THE COAST AND ADJACENT ISLANDS FROM TOPOLOBAMPO HARBOR TO CAPE CORRIENTES.

✓ Farallon de San Ignacio.

The Farallon de San Ignacio is the best land-mark for making the entrance to Topolobampo Harbor. It lies $13\frac{1}{4}$ miles S. 60° W. (SW. $\frac{2}{3}$ W. mag.) from Santa Maria Point, and is a small barren rock of a whitish color (from a deposit of guano), about a third of a mile in extent either way, and 465 feet high. There is deep water close to, on all sides of it except the northern, where there are a few outlying rocks, close to. (View opposite page 167.)

✓ Topolobampo Harbor.

The entrance to Topolobampo Harbor is between two lines of breakers, and is exceedingly narrow and intricate. The bar is $2\frac{1}{4}$ miles from the nearest land (Santa Maria Point), and is less than half a mile wide at its deepest part, with from $2\frac{1}{2}$ to $2\frac{3}{4}$ fathoms of water on it at low tide. Inside the bar the depth of water in the channel increases gradually until abreast of Sand Island, where 10 to 12 fathoms are found.

✓ Sand Island.

Sand Island bears S. 59° E. (ESE. $\frac{1}{4}$ E. mag.) one mile distant from Santa Maria Point, and may be considered the southern point of the entrance, although Shell Point, $1\frac{1}{2}$ miles N. 84° E. (ENE. $\frac{1}{2}$ E. mag.) from it, is the first point of the main-land, on the south side of the entrance. A little over half a mile to the westward of Sand Island, on the opposite side of the channel, there is an isolated shoal which is just bare at low water. After passing Sand Island, the channel, which averages something less than half a mile in width, leads to the eastward for about 3 miles, having a depth of from 5 to 8 fathoms, sandy bottom, and then assumes a north-easterly direction, passing close to the rocky heads that project from the main-land on its south-eastern side. Toward the north-eastern limit of the harbor the channel narrows to a width of about a quarter of a mile, and deepens considerably, 15 and 16 fathoms being found in it. After passing a high head-land, surmounted by a hill

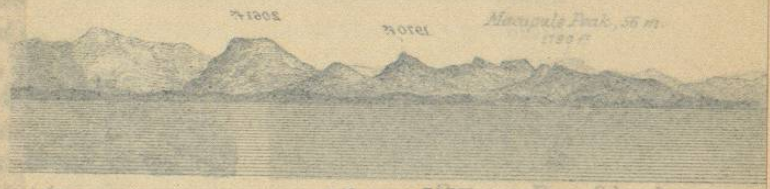
817 feet high.
bay called San
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There is a
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N. 45° E. mag.
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as Sand Island
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in the channel

San Ignacio
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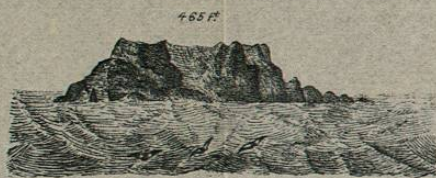
passage
El Dorado, 34 m.
Doroteo Peak, 37 m.

Off Altate



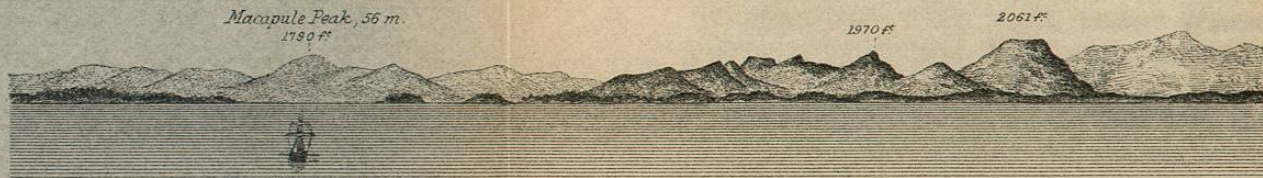


Topolobampo high lands, from the Bar.



ab' N by E. (mag) 4 m.

Farallon of San Ignacio.



Entrance Playa Colorada.
N.E. 1/4 N. (mag) 4 m.

N.E. 1/4 E. (mag) 31 m.

At anchor off Playa Colorada.



Agua Pepa
N by E. (mag) 28 m.

In range N.E. (mag) { El Dorado, 34 m.
Double Peak, 57 m.

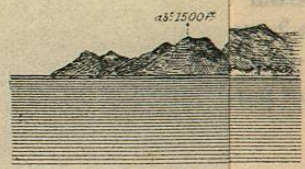
Off Altata estero.

Plate XVII.



ab^s N by E. (mag)

Farallon of



Agua Pepa
N. by E. (mag.) 21

817 feet high, known as Mount San Carlos, it enters a large bay called San Carlos Bay.

The *channel* is the only part of Topolobampo Harbor that is navigable for vessels of any size, the other parts of it being very shallow and full of shoals.

There is excellent anchorage inside the shoals in 7 or 8 fathoms, sheltered from every wind. The best anchorage outside the bar, which is safe only in moderate weather, is in 8 or 10 fathoms of water, with Round Hill, a conspicuous sharp hill on the northern shore of the harbor, bearing N. 45° E. (NE. by N. mag.). The nearest breakers will then be half a mile to the eastward.

The following directions will be found of service in entering the harbor of Topolobampo, but should not be too much relied on, as the channel and shoals, from the bar to Shell Point, are constantly changing, and no vessel of over 12 feet draught should attempt to enter without first sounding and marking the channel. When off the bar, bring Round Hill (251 feet high), on the northern shore of the harbor, to bear N. 44° 30' E. (NE. by N. mag.)—view on opposite page—and steer for it, keeping it on that bearing, but taking care as Sand Island is approached, not to *shut in the spur* shown to the left of the north-western slope of the table mountain in the view, until well past the island. To avoid shutting in the spur it is necessary to steer a more northerly course, bringing Round Hill on the starboard bow, and of course changing its bearing. Be careful not to approach Sand Island too closely, as a shoal extends off from it a short distance to the northward and eastward. When Santa Maria Point bears N. 81° W. (W. $\frac{1}{8}$ S. mag.), Round Hill bearing about N. 50° E. (NE. $\frac{1}{2}$ N. mag.) and Sand Island S. 20° E. (SSE. $\frac{3}{4}$ E. mag.), change the course to the eastward, heading for the first rocky, bluff point eastward of Shell Point, and after proceeding three-quarters of a mile in this direction, anchor anywhere in the channel, or if it is desirable to proceed farther in, continue on the same course until Mount San Carlos bears N. 52° 30' E. (NE. $\frac{1}{4}$ N. mag.), then steer for it, remembering that the deepest water is on the SE. side of the channel, and that the projecting points on that side may be approached to within a short distance. As Mount San Carlos is approached, steer for the middle of the passage between it and the island on the opposite side of

Anchorage. ✓

Directions. ✓

the channel. The water is deep close to the head land on which Mount San Carlos is situated.

The bar and shoals near the entrance appear to have changed considerably since 1869, at which time a survey was made by the *U. S. S. Jamestown*, Commander W. T. Truxton, commanding.

In ordinary weather the sea breaks in $1\frac{1}{2}$ fathoms, but with fresh southerly or westerly winds it breaks entirely across the bar.

Variation.

Tides.

Remarks.
Fresh water,
fish, &c.

San Carlos Bay.

The tidal currents on the bar and in the channel, are strong, and care is required to keep on the ranges. The magnetic variation was $10^{\circ} 40'$ E. in 1876, increasing about $2'$ annually. H. W., F. and C., IX^h 7^m (approx.). Springs rise 6 feet; neaps $4\frac{1}{2}$ feet.

It is said that fresh water may be obtained by sinking wells in the sand near Shell Point. Fish and turtle are abundant in the waters of the vicinity and game is said to be plentiful in the interior. The vegetation in the vicinity of the harbor is very scanty.

San Carlos Bay, is a large bay lying to the north-eastward of Topolobampo Harbor and connected with it by a narrow strait or channel. It has never been surveyed, but is known to extend 9 or 10 miles in a north-easterly direction and to have a width of from 4 to 6 miles.

After rounding the high head land on which Mount San Carlos is situated, a narrow, intricate channel, with a gradually-decreasing depth of water, was followed for about $3\frac{1}{2}$ miles in a north-easterly direction; at that distance 3 fathoms were found. On either side of the channel the soundings were irregular, varying from 3 feet to 3 fathoms, with numerous sand bars and a few small islands.

Coast from
Topolobampo Bar
to Sinaloa River.

The coast from Topolobampo Bar has a general trend S. 68° E. (E. by S. mag.) as far as the mouth of the Sinaloa River, a distance of $41\frac{1}{2}$ miles, and is, with the exception of the high land near Topolobampo entrance, low and sandy, being composed of a series of sand islands, separated from the main-land by lagoons. Four miles to the south-eastward of Shell Point the high land approaches the coast in bluffs from 20 to 50 feet in height, a sharp hill 765 feet high rising immediately back of them. Four miles farther on is an entrance to the extensive lagoon that lies parallel to the coast, extending to and joining the Sinaloa River. Off this

entrance is an extensive shoal, over which the sea breaks. The outer edge of this shoal, on which there is 3 fathoms of water, is $2\frac{1}{2}$ miles from the land.

San Ignacio Island is the westernmost of the series of islands before mentioned as forming the coast line between Topolobampo and the Sinaloa River. It is $12\frac{3}{4}$ miles in extent from the lagoon entrance just mentioned, to Navachista Estero, and from three-quarters of a mile to a mile and a half in width. Back of the lagoon that separates it from the main-land, the peaks of the Sierra de Navachista rise to a height of over 1,000 feet. In the northern part of the lagoon, nearly opposite the center of San Ignacio Island, is a remarkable *white rock* 75 feet high.

The entrance to Navachista Estero lies between the eastern end of San Ignacio Island and the island of Vinorama. It is narrow and intricate, with about 2 fathoms on the bar at low water. The outer edge of the bar, which is a quarter of a mile wide in its narrowest and deepest part, lies $1\frac{3}{4}$ miles from the nearest land; and just west of the channel, the shoals extend two miles off the land, the sea breaking over them continually. Inside the bar the depth of water is from 5 to 7 fathoms.

Being outside the bar in 5 or 6 fathoms of water, bring the western extreme of Vinorama Island to bear N. $21^{\circ} 45'$ E. (N. by E. mag.) and steer for it until in 3 fathoms of water, on the outer edge of the bar; then steer N. $45^{\circ} 15'$ E. (NE. $\frac{2}{3}$ N. mag.) until the western extreme of Vinorama bears N. 8° W. (N. by W. $\frac{2}{3}$ W. mag.), when you may steer so as to pass along the western side of Vinorama, within 100 yards of the beach.

These directions apply to the existing state of the entrance in 1875, but as this bar, in common with all others on this coast, is subject to frequent change, they must not be implicitly relied on.

Previous to 1875 the entrance to Navachista Estero had been gradually shoaling and becoming more intricate, and the town of Navachista, some distance in the interior, was, in consequence, fast becoming depopulated, its rival, Playa Colorada, about 24 miles to the south-eastward, increasing to a corresponding extent.

Vinorama is a low, sandy island about $1\frac{1}{2}$ miles in length E. and W. and three-quarters of a mile wide. On it are

Shoal.

San Ignacio Isl.
and.

Navachista Es-
tero.

Directions for
entering.

Vinorama Isl.
and.

several cotton farms or ranches, and tolerably good *fresh water* may be obtained by sinking wells. The magnetic variation was $10^{\circ} 30'$ E. in 1876, increasing about $2'$ annually. Tides rise about 5 feet.

✓ Variation.

Tides.

✓ Anchorage.

The *Narragansett's* anchorage off Navachista Estero was in 6 fathoms of water, about $2\frac{3}{4}$ miles from the shore, the westernmost peak of the Sierra de Navachista, 765 feet high, bearing N. 54° W. (NW. by W. $\frac{3}{4}$ W. mag.).

✓ Boca Macapule.

Boca Macapule lies to the eastward of Vinorama, between it and Macapule Island. It is narrow and shallow, the shoal water extending about a mile off shore.

✓ Macapule Island.

Macapule Island, lying eastward of the Boca Macapule, is 11 miles in length, parallel to the coast, and about a mile wide, a lagoon or estero of the same name separating it from the main-land. Its southern beach is nearly straight, and is free from shoals, having from 3 to 5 fathoms of water close to. At its eastern end is a small island, on either side of which is a narrow opening to the estero.

✓ Sinaloa River.

The Sinaloa River, which empties into the gulf on either side of a small island covered with trees, the centre of which is $4\frac{3}{4}$ miles from the eastern end of Macapule Island, is useless for the purposes of navigation. A shoal makes off about half a mile from the island at its mouth, and the discolored water from the river is very marked for some distance off.

✓ Sinaloa.

The old town of Sinaloa, built on a hill, is situated on the bank of the river about 40 miles from its mouth. It was formerly of some importance, but is now almost deserted.

✓ Estero de Playa Colorada.

The entrance to Playa Colorada Estero is $7\frac{1}{2}$ miles to the south-eastward of the island at the mouth of the Sinaloa River. Off it are extensive shoals, over which the sea breaks, even in moderate weather. The outer edge of these shoals is $2\frac{3}{4}$ miles from the land.

✓ Bar.

The depth of water on the bar is said to vary with the seasons, 9 feet being found at low water during the dry season and 12 feet during the rainy season. As the bar is shifting, no directions that will hold good at all times can be given, and the only safe way is to sound out and mark the channel before attempting to enter. The deep water lies between the lines of breakers and they are the best guides.

✓ Directions.

The following directions may be of some assistance, but

should not be implicitly relied on. When off the bar, in 5 or 6 fathoms of water, bring the westernmost point of Saliaca Island (which lies on the eastern side of the entrance) to bear N. $13^{\circ} 15'$ E. (N. $\frac{1}{4}$ E. mag.) and steer for it until in 3 fathoms, on the outer edge of the bar, when steer N. $3^{\circ} 30'$ E. (N. $\frac{3}{8}$ W. mag.) crossing the bar on that course, and continuing it so long as it leads between the lines of breakers. Inside the bar the breakers are the only guide.

Tides rise about 6 feet. The magnetic variation in 1876 was $10^{\circ} 25'$ E.

Tides. ✓
Variation.

Saliaca Island lies to the eastward of the entrance to Playa Colorada Estero. It is $3\frac{3}{4}$ miles long NW. and SE., about a mile wide, low, sandy, and covered with a scanty growth of bushes. An estero of the same name separates it from the main-land.

Saliaca Island. ✓

The *Narragansett's* anchorage off Playa Colorada Estero was in 6 fathoms of water, sandy bottom, 4 miles from the mouth of the estero, and a mile from the outer edge of the shoals making off from it. Macapule Peak, 7,190 feet high, in the Sierra Madre, bearing N. 48° E. (NE. $\frac{5}{8}$ N. mag.) and a conspicuous peak, 1,970 feet high, in the coast range, N. 58° E. (NE. $\frac{1}{4}$ E. mag.). (View opposite page 167.)

Anchorage. ✓

The village of Playa Colorada, containing about 200 inhabitants, is situated 4 or 5 miles from the mouth of the estero of the same name.

Playa Colorada. ✓

Large quantities of dye-wood are annually shipped from here.

From the western end of Saliaca Island the coast assumes a more southerly trend, the entrance to Altata Estero, $39\frac{1}{2}$ miles distant, bearing S. 35° E. (SE. mag.) from that of Playa Colorada. Throughout this entire distance the shore is low and dangerous to approach, as it cannot be seen at night before striking on the shoals that make off from many parts of it. The lead should be used freely, as the soundings are an excellent guide, and it is recommended not to get in less than 13 or 15 fathoms of water when navigating this part of the coast at night.

Altamura Island lies eastward of Saliaca Island, separated from it by a shallow opening to the esteros lying between them and the main-land. Shoal water extends off this opening for a distance of nearly 2 miles.

Altamura Isl-
and. ✓

The island is 24 miles long in a direction parallel to the

coast, and from $1\frac{1}{2}$ to $2\frac{1}{2}$ miles wide. Like the other islands on this part of the coast, it is low and sandy, with some sand hills and bushes.

✓ Altamura Point and Shoal.

Altamura Point is a low indefinite point making out from the island of the same name, about 7 miles from its south-eastern end. It is the north-western limit of an extensive shoal which makes off 2 miles from the shore and extends 10 miles to the south-eastward, across the mouth of Tule Estero.

✓ Colorado Point and Tule Estero.

Colorado Point is the southern end of Altamura Island and the northern point of the entrance to Tule Estero, which lies between Altamura and Baredito Islands. The shoal just mentioned as extending 10 miles south-eastward from Altamura Point, extends clear across the entrance of Tule Estero, the sea breaking heavily over it. At the time of the *Narragansett's* visit, in 1875, the wreck of the ship *Mary Banks* was lying in the breakers near Colorado Point. The small town of Tule is situated on the bank of the Tule River, about 10 miles from the bar.

✓ Tule.

✓ Culiacan Mountains.

The Culiacan Mountains, 2,000 feet high, in which the Tule River takes its rise, are about 25 miles to the eastward.

✓ Land-mark.

When off Tule Estero, Agua Pepa Peak, about 1,500 feet high, and the westernmost of three prominent peaks, will bear N. 42° E. (NNE. $\frac{3}{4}$ E. mag.).

✓ Baredito Island.

Baredito Island, which is something in the form of a crescent, is about 10 miles long, with an average width of a little over half a mile. It forms the coast line between the entrance to Tule Estero and that of Altata, and is separated from the main-land by a lagoon. Like Altamura, it is low and sandy, with a scanty growth of bushes and some low sand hills.

✓ Shoal.

Off its southern part, a shoal on which there are heavy breakers, makes out nearly 2 miles.

✓ Altata Estero.

The entrance to Altata Estero lies between the south-eastern end of Baredito Island and the north-western end of a long narrow island (not named) that forms the coast line for a distance of 39 miles to the south-eastward. It is only about a cable in width at its narrowest part, and is marked on either side by lines of breakers. The bar had, in 1869, between 3 and 4 fathoms on it at low water, but is probably subject to change, as some reports give only $2\frac{3}{4}$ fathoms on it.

✓ Bar.

A detached shoal, with a least depth of 2 fathoms, lies on the south side of the channel leading over the bar. It is about a mile in extent NE. and SW., and half a mile wide, its inner edge 2 miles distant from the centre of the passage between the two islands before mentioned. This shoal *may* have given rise to the reports that there were but $2\frac{3}{4}$ fathoms on the bar. The sea breaks heavily over it.

Bring the saddle of El Dorado, 2,621 feet high, in range with Double Peak, 6,397 feet high, bearing N. 56° E. (NE. mag.)—see view opposite page 167—and stand in, passing to the northward of the detached shoal just described and keeping between the lines of breakers on either side. When inside the estero, steer to the south-eastward, keeping about mid-channel, and anchor off the village of Altata, which is about 3 miles from the entrance of the estero. The magnetic variation in 1876 was $10^{\circ} 20'$ E.; H. W., F. & C., XI^h 30^m . Tides rise about 6 feet. The tidal currents in the channel occasionally have a strength of 4 or 5 knots.

The anchorage off Altata Estero is in 6 fathoms of water, $3\frac{1}{2}$ miles from the entrance, with El Dorado saddle in line with Double Peak, bearing N. 56° E. (NE. mag.)

Altata is the sea-port of Culiacan, the capital of Sinaloa, and is situated near the mouth of the Culiacan River, which is reported to be navigable for a distance of 10 or 12 miles from its junction with Altata Estero, having an average depth of about 5 fathoms; large quantities of dye-wood are shipped from here.

There is but a poor supply of drinkable water to be obtained, and provisions are scarce; cattle can be procured from a neighboring ranch.

From the entrance to Altata Estero to the Piastla River, a distance of 87 miles S. 50° E. (SE. by E. $\frac{3}{4}$ E. mag.), the coast is, with the exception of the Boca Tavala, off which shoal water extends $1\frac{1}{4}$ miles, an unbroken, almost straight line of sand beach, covered with bushes and free from outlying dangers, with from $4\frac{1}{2}$ to 6 fathoms of water within half a mile of the beach. The low land stretches far away into the interior and is backed by moderately high ranges of hills or mountains.

A narrow lagoon extends from Altata Estero to a short distance south-eastward of the Boca Tavala, a strip of sand beach, from half a mile to a mile in width, separating it from the waters of the gulf.

Shoal.

Directions for entering. ✓

Variation.
Tides. ✓

Anchorage. ✓

Altata. ✓

Supplies. ✓

Lagoon. ✓

- ✓ Boca Tavala. Boca Tavala is a narrow outlet from the lagoon, probably caused by the rush of water from the Rio Tavala or San Lorenzo, which empties into the lagoon a short distance to the north-eastward. A shoal with 3 fathoms on its outer edge extends $1\frac{1}{4}$ miles off the entrance.
- ✓ Anchorage. The anchorage off Boca Tavala is in 6 or 7 fathoms, 2 miles from the beach. Chuchamone Peak, 4,945 feet high, of the Sierra de San Sebastian, bearing N. $77^{\circ} 30'$ (ENE. mag.), distant $28\frac{1}{2}$ miles. See view, page 175. Vessels come here for dye-wood.
- ✓ Variation. Tides. The magnetic variation is 10° E. (approx.) Tides rise about 5 feet.
- ✓ Tavala or San Lorenzo River. During the dry season the Tavala River is only navigable for coasters drawing not more than 5 feet. On its right bank, about 15 miles from its mouth, is the small town of Quila, and 8 miles farther up is the town of San Lorenzo.
- ✓ Elota River. The Elota River approaches the coast and, during the dry season, is lost in the sand $33\frac{1}{2}$ miles to the south-eastward of Boca Tavala. It is a mere creek in the dry season, but during the rainy season becomes a turbid torrent. The village of Elota is situated on its right bank, about 20 miles from the coast, in a thinly-populated and partially-cultivated country.
- ✓ Sierra de San Sebastian. The Sierra de San Sebastian, with peaks from 1,000 to 5,000 feet high, lies from 15 to 25 miles back of the coast between the San Lorenzo and Elota Rivers.
- Land-mark. From the *Narragansett's* anchorage off the mouth of the Elota River, in 9 fathoms of water, a sharp peak of the Sierra Madre, 9,128 feet high and 53 miles distant, was just open south of a conspicuous solitary hill, about 1,100 feet high and $13\frac{1}{2}$ miles distant, called Quoin, the latter bearing N. 86° E. (ENE. $\frac{3}{4}$ E. mag.) Tides rise about 5 feet. The magnetic variation in 1874 was $9^{\circ} 50'$ E.
- ✓ Tides.
- ✓ Variation.
- ✓ Point San Miguel. Point San Miguel is a rocky point, with some close outlying rocks, situated about $5\frac{1}{2}$ miles to the south-eastward of the mouth of the Elota River. A short distance back of it is the north-western limit of a range of remarkable hills, known as the Cerros de Piastla, one of which, 920 feet high and of a triangular shape, called Cerro de las Vigas, is $2\frac{1}{2}$ miles S. 69° E. (E. by S. mag.) from the point.
- ✓ Bluff. Four miles to the south-eastward of Point San Miguel is

a rocky bluff
feet high tower

The mouth
eastward of the
N. $12^{\circ} 30'$ E.

Elota, it is a
rent. Near
trees and hills

The village
Point Piastla

lying about
It is 156 feet

distance to the
site page.)

A sweep in
Piastla River
forms a small

ward, where
5 or 6 fathoms

A short dis-
tance from the

it. On a hill
On a line

river of the
crumpled point

feet high. Point

Drinking water

the beach. The

March, April
this lagoon as

"Not far
cattle may be

The magnetic
about 5 feet.

The coast
trend as far

low, sandy, a
About $1\frac{1}{2}$

bluff 80 feet
ing nearly the
Gruera Point
is a rocky bluff



Chuchamone Peak
ENE. mag. 1874

At anchor off Boca Tavala

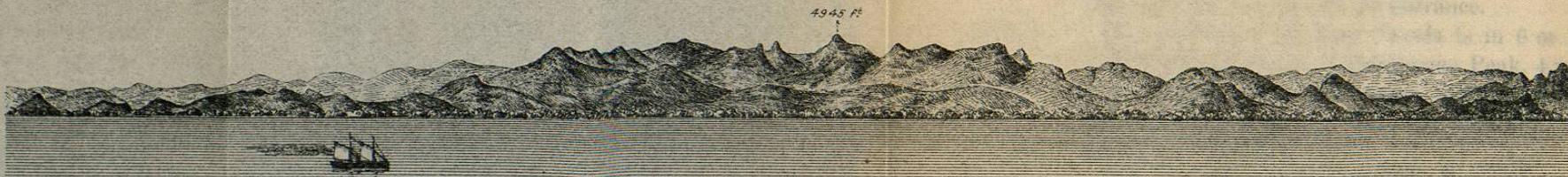


Cerro de las Vigas
ENE. mag. 1874

Piastla Point from the Bay

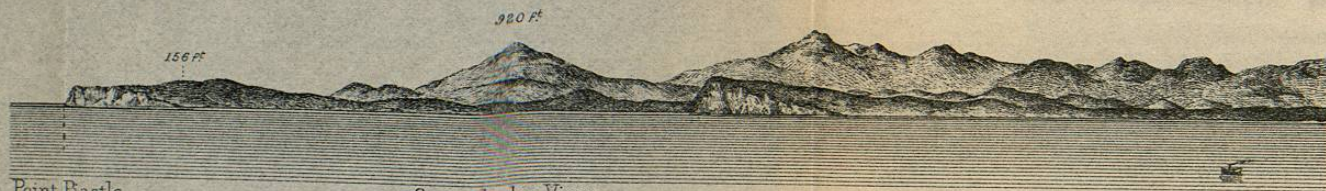


Approaching Mouth of the Bay



Chuchamone Peak,
E.N.E. (mag.) 28½ m.

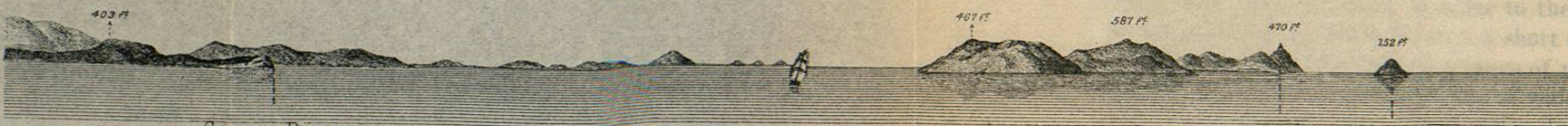
At anchor off Boca Tavala .



Point Pastla,
N.W. by N. (mag.) 5 m.

Cerro de las Vigas,
N.W. by N. ¼ N. (mag.) 14½ m.

Pastla Point from the Southward .



Camaron Point,
E.S.E. (mag.) 6½ m.

Pajaros Island,
S.E. ¼ E. (mag.) 9½ m.

Venado Island.

Creston Island,
S.E. ¼ E. (mag.) 15 m.
Lighthouse,
(L^t E. vis. 20 m.)

S. Hermano R^o.

Approaching Mazatlan from the Northward .