

mentioned shoal, at the distance of 9 m. to the W. of Muckram village, is a 4-fathoms shoal of rocks and sand; it is about 3 m. long, N. and S., and has 30 fathoms near it on all sides. The discoloured water on these shoals may generally be seen.

Channel. There is a good channel between Camaran Island and the inner shoal to the W. of it, where the breadth is about 3 m.; and between Camaran Reef and the small island 3 m. to the N.W. of Muckram, $1\frac{1}{2}$ m. wide. When running up from the S., the depths are 6 and 10 fathoms near the island reef, and 19 in mid-channel; from thence a decrease towards the S. end of the inner shoal. But, when proceeding to sea from the anchorage off Muckram, the depths increase gradually to the N. end of the shoal, where there are 35 fathoms. In the channel between Muckram and the island to the N.W. of it, the depths are irregular, 12 and 7 fathoms in mid-channel, and 5 on either side of it; and afterwards 16 and 17 fathoms between Camaran and El Bother. Between the inner and the outer shoal, there is a gut of deep water, there being 35 and 40 fathoms near the W. side of the inner shoal, and 22 on the E. side of the outer one, between their S. points; and between their N. points, 39 fathoms near the inner and 28 near the outer. Should a vessel get between these, a course about N. by W., for the bluff on the S. part of Okbahn Island will carry her through.

El Bother, about 3 m. to the N.W. of Camaran, is a low sandy island about 3 m. in length E. and W., surrounded by a reef, which extends off the S. side $1\frac{1}{2}$ m., with 5 or 6 fathoms on its edge, rocks and sand. There is a good channel on either side of this Island; that between it and Camaran is 2 and 3 m. wide, with from 10 to 23 fathoms, being bounded on the S. by Camaran and the small island to the N.W. of Muckram, and on the N. by the reef off the S. side of El Bother. At 3 m. to N.W. of El Bother, is a patch of 7 fathoms; and at $1\frac{1}{2}$ m. to N.E. of its E. end, is a patch of 1 fathom.

About 4 m. to W. of El Bother, is the S. end of **Okbahn Island**, which extends thence in a N.W. direction about $4\frac{1}{2}$ m. It is low and sandy in the centre, with a hill on its N.W. end, and a bluff on the S. There are deep soundings on the E. and S. sides, and a reef runs along the W. side about $\frac{1}{2}$ m. off the Island, and continues round the N. end, where it extends $2\frac{1}{2}$ m. off, and is steep-to, having 23 fathoms near to its W. edge, and 8 and 15 fathoms on the edge of the reef at the N. end, decreasing towards the Island.

Channel. There is a good channel to the S. of Okbahn and El Bother into Camaran Bay, and there is also a channel between it and El Bother to Loheia. Any of these channels may be used by keeping a look-out for the patches, which may be seen excepting in hazy, thick weather.

Cadmon Segeer and Cadmon Kebeer are two low sandy islands to the E.N.E. of Okbahn and N. of El Bother. A reef extends from Cadmon Kebeer nearly $1\frac{1}{2}$ m. to W.S.W. with 5 fathoms on its end, and there is also a 3-fathoms patch about 2 m. W. of the Island. At 3 m. to N.W. of Cadmon Segeer, lies another shoal about $2\frac{1}{2}$ m. in length, in a N.N.W. direction, having 3 fathoms rocks and sand on it, and 24 fathoms near both sides.

Humreek Island, 5 m. to the S.W. of Loheia, is about 2 m. E. and W., and $1\frac{1}{2}$ m. wide. This Island is low and sandy, with a fishing village on it, but no water, that article being supplied from Loheia. In the centre of the N.E. and W. sides are two small white mosques, one of which is used as a mark for the anchorage at Loheia. Between the E. point of the Island and the extensive reef off the coast, the inner channel is not $\frac{3}{4}$ m. broad.

Two small shoals, called Shab-el-Bunjam lie 4 and 5 m. S. by E. of Humreek Island; and at 5 m. to S.E. of them is another small shoal. They lie from 2 to 3 m. off the coast, and may be seen by a good look-out and passed on either side, though it will be as well to pass to the W. of them in going from Camaran Bay through the inner channel to Loheia, or the contrary.

Islands near Loheia. At $3\frac{1}{2}$ m., N.W. by N. from Humreek, and about 7 m. W. of Loheia, is the Island **Bowahrid**, and to the W. of it four others, forming the N. side of a channel from Loheia to seaward, and the contrary. These islands are Gooban, Goosee, Entookfash, and Kotáma. Bowahrid, Gooban, and Goosee, are low and small, with channels between them: that between Gooban and Goosee is very narrow, and has from 3 to 4 fathoms; between Bowahrid and Gooban is a channel of 6 and 7 fathoms. **Entookfash** lies E. and W. 6 m. in length, and is a low, sandy plain, with a hill upon its W. end, from which a reef extends 3 m. to N.N.W., with 8 fathoms on its extremity. Antelopes are plentiful, but there is no fresh water on the Island; there are two or three huts, occupied by fishermen, who are employed procuring turtle. Between this Island and the small Islands Gooban and Goosee, off its E. end, there is good anchorage in 4 or 5 fathoms. The reef on the S. side of Entookfash extends more than 1 m. off shore, and there is also a bank with from 2 to 12 fathoms on it, and black rocks above water, from 2 to 3 m. S. of the hill, and a channel between them and the island reef, and from it an outlet to the N. of Kotáma and reef.

Kotama Island, in lat. $15^{\circ} 41' N.$, lon. $42^{\circ} 16' E.$, is described at page 167.

Hamar Island, about 4 m. to N.W. of Loheia, and 3 m. to the N.E. of Bowahrid, may be passed on any side at a little more than 1 m. off. (See also page 176.)

LOHEIA TOWN is built of coral, and has some large houses; it is surrounded by a wall, with several forts and towers adjacent. The principal is a fort on a hill which commands the town and neighbourhood, but it is in a ruined state. There is an excellent bazaar in the town, generally well supplied with cattle and poultry, excepting during the Ramazán, when the market is not so well attended; flour, onions, and sweet potatoes may be had here, but neither rice nor biscuit. The water is good, but distant from the town, from whence it is brought in jars on camels. Loheia is in lat. $15^{\circ} 42' N.$ and lon. $42^{\circ} 39' E.$

The Anchorage off this place is in a gut in the coast reef, which runs up to the town in a N.E. direction, where small boats anchor. The entrance bears E. by N. from the white house or mosque on Humreek Island. You run in with the first high tower a little to the N. of Loheia Fort, on with the Northernmost of two small mounds bearing in one about N.E. by N. A ship cannot go far inside the entrance, and would then be nearly 3 m. from the town; it has also some dangerous patches, and therefore cannot be recommended for general use.

Approaching Loheia from the S., through the Channel close to the W. side of Camaran. Having passed Rasher in 24 fathoms, or about 3 m. to the W. of it, steer about N., keeping about 1 m. from Camaran; and after passing that part of the island reef off Muckram village (the outer part of which bears nearly S. of the small island 3 m. to the N.W. of it), steer to the N.E., between that Island and Camaran Reef, where will be found 12 and 7 fathoms in mid-channel. Having passed the said small sandy island, the depths will increase to 16 and 17 fathoms in mid-channel between El Bother and Camaran Island; then, if going round the N. end of Camaran, go no nearer than 14 fathoms, as 10 fathoms are near the reef which extends from it about 1 m.; but if going to Loheia, beware of a 1-fathom patch, about $1\frac{1}{2}$ m. to the N. of the E. end of El Bother, and steer direct for the narrow channel at the E. end of Humreek Island. Give that E. end a berth of $\frac{1}{2}$ m., then haul up to N., to avoid the shore-reef, until the above marks for Loheia anchorage are on.

THE COASTS OF YEMBO AND HEDJAZ, FROM LOHEIA TO LEET.

From Loheia the coast turns N.N.E. about 9 m., forming a slight bay between; then to the N. 8 leagues to **Ras Musahrib**, in lat. $16^{\circ} 14' N.$, and lon. $42^{\circ} 43' E.$, forming a slight curve inward; the whole space being bordered by a reef less than a mile in breadth, excepting in the vicinity of the Ras, where a shoal patch extends 2 m. off. From Musahrib the coast bends about N. by W., a distance of 40 m., forming a bight with sinuosities to **Ras Shamah**, a projecting point, in lat. $16^{\circ} 52' N.$, lon. $42^{\circ} 29' E.$, 3 m. S.E. of which is **Gurnah Shurnah**, a bushy point, the reef bordering the shore all the way to the latter place, about $\frac{1}{2}$ m. wide. The coast nearly the whole space from Loheia is covered with jungle, without village, hut, or inhabitant.

Gheesan Town is to the N. of Ras Shamah, and has a few square stone buildings, but the principal of it consists of grass huts, which are mostly round, with pyramidal tops. It has a large fort, greatly decayed, and there is a small bazaar, scantily supplied with such dry provisions as the natives use, but none for ships. Water is very scarce. The population of Gheesan is about 400, employed chiefly in the pearl-fishery, &c., on the banks in its neighbourhood. The anchorage is in 7 fathoms about 2 m. off shore, with the fort bearing E. by N. There is a sunken sandy patch of 2 fathoms in the line of 6 fathoms soundings $1\frac{1}{2}$ m. to the S.W. of the rocky point of the land, that is, about $\frac{1}{2}$ m. S. of the town. The fort bears about N.E. $\frac{1}{2}$ N. from this patch, distant about $1\frac{1}{2}$ m., and a small white mosque in the town is in line with a remarkable rock on a hill behind it. The shore-reef projects considerably at Gheesan, and the soundings are irregular inside the depth of 7 and 6 fathoms; but there is a place in $3\frac{1}{2}$ and 4 fathoms about a mile off shore, at a short distance from a rocky spot, forming an inner anchorage for small boats off the town. The *Palinurus* anchored in $4\frac{1}{2}$ fathoms, sand, off the town, the fort bearing E. by N., and Ras Shamah S.S.E. $\frac{1}{2}$ E. Gheesan Hills cannot be mistaken; they are close behind the town, and have no other high land near them. Gheesan lies 12 m. to S.E. of **Ras Toorfah**, and may easily be approached from the N.W., past the islands of Theran and Shoorah. (See top of page 176.)

The Coast goes to N. from Gheesan for 9 m. to **Karn-el-Watah Bay**. At 8 m. N.W. from Ras Shamah is the E. end of **Ferafer Island**, which is $2\frac{1}{2}$ m. in length W.N.W., narrow, low, and sandy. **Khor Aboo-Sabah** is a bight or arm of the sea, about 14 m. deep, running into the coast N. of Ferafer Island: the inner and E. part of it is shallow, but in the S. and W. part is good anchorage of 6 and 7 fathoms, formed by a narrow neck of land, the S. part of which is called **Ras Toorfah**. This Ras, or Cape, extends within 1 m., or little more, of the W. end of Ferafer Island, having a good channel of 8 and 10 fathoms between, leading in to Khor Aboo Sabah.

Ras Toorfah is in lat. $16^{\circ} 59\frac{1}{2}'$ N., and lon. $42^{\circ} 19'$ E. Shoorah Island lies 3 m. to W. by N. of this cape. (See also page 178.) The coast from thence runs nearly N. for 27 m. to Shab Abou Looka, where it forms a small bight, 7 m. S. of which is Shab-el-Kebeer. Here the coast-reefs extend nearly 2 m. from shore, decreasing in breadth both to the N. and S., but from Ras Toorfah 15 m. to N. there is no coast-reef.

Khor-el-Etwid, which runs a short distance into the coast, and has $2\frac{1}{2}$ and 2 fathoms on it, bears N.W. 9 m. from Shab Abou Looka. There is a long shoal off the entrance, with 3 fathoms inside, and there is a $1\frac{1}{2}$ -fathom patch of rocks 2 m. W. by N. of the entrance, and 1 m. off the coast, with 5 fathoms just outside it. The village of Etwid is 5 or 6 m. inland. Jebel Etwid, a very remarkable peak on this part of the coast, is to the N.E. of Khor-el-Etwid, and will easily be known, as it appears quite unconnected with the range of hills in the neighbourhood, and is much nearer to the coast. At 8 m. N.W. from El Etwid is **Geeass** (Kiyás), off which is a long reef whose N. end is abreast of Shukaik, and about $1\frac{1}{2}$ m. from the coast, with 2 and 3 fathoms within it; and nearly 4 m. W. of this place is a patch of rocks with $4\frac{1}{2}$ fathoms on it. About 9 m. further is **El Mahjis**, a Bedouin village, well peopled, off which the coast-reef projects nearly $\frac{3}{4}$ m., forming the little **Khor-el-Mukrah** to the N.

Widan is 12 m. N.W. of El Mahjis. At this place a narrow neck of land projects from the coast, forming a semicircular bay, $\frac{3}{4}$ m. broad, affording good protection from S. winds only; the depths within are 3 and 4 fathoms: seen from the W., this point of land has the appearance of an island. There are no buildings nor fresh water, but cattle are plentiful. There is a high hill close to the sea, on the N. part of Widan anchorage, called Jebel Bugrah. Jebel Rukbut Kadair is a high hill forming a cape to the S. of Widan anchorage. Jebel Widan lies E. of Jebel Bugrah; the centre, or highest part, forms a small peak.

From Ras Toorfah to Widan, there is anchorage all along the coast. W.N.W. 5 m. from Widan is **Kotumbal Island**, situated about 2 m. from the main. It is about $\frac{1}{2}$ m. in length, and forms a rugged peak, like a quoin, 400 ft. high, with a steep ascent on its N. side, the only part accessible. The top of it is only a few yards in length, and very narrow, forming a perpendicular declivity to the S. and W.: on the E. it forms a deep slope. The character of the rocks on the island is volcanic. There are 12 fathoms between Kotumbal and the main. About 3 m. S. by E. from Kotumbal, and $3\frac{1}{2}$ m. W. from Widan, is a **rocky patch**, with 30 fathoms to the N. of it.

Kasar or Cussar is a Bedouin village 7 m. N.W. from Widan Point, and 3 m. N. of Kotumbal: with the ruins of a brick-built fort; but no supplies can be procured. At 4 and 7 m. N.W. from Cussar, lie the S. and N. roadsteads of **El Wussim**, both affording good anchorage and protection; but it would be difficult to get out from the former in S. winds. The latter has a bar of sand across the entrance, which connects the shore-reef to the shoal on the N. part of the entrance. The least water found on the bar is $2\frac{1}{2}$ fathoms; within it there are 6 and 7 fathoms, mud. The remarkable hummocks between these anchorages will direct to either of them: these are three steep and lofty hills, in one, when bearing E., the anchorage lying to the S. and N. of them. The outer or W. hill is called Wussim.

N. by W., distant 5 m. from N. El Wussim, and close to the shore, is **Abou Lelf Island**, or **Abou-l-Mahlef**; and 3 m. N.W. from it, another island, called **Assore**, or **Hasr**, about a mile from the coast: the former a small quoin, separated from the shore by a narrow shallow channel; the latter, a low wooded island, and both surrounded with reefs forming good anchorages. The reef extends W. 2 m. from Abou Lelf, from whence it bends to the S.E., forming an inlet $1\frac{1}{2}$ m. deep, running up to N.N.W. opposite Dahban, in which it is not advisable to anchor with S. winds. The reefs above Assore Island, and to the N. of it, extend about 3 m. from the coast, and form inlets to the S. and N. of that island, with good anchorages, which will be better understood by looking at the chart than by any description that can be given. The same may be said of El Burk, about 4 m. to the N. of Assore Island. This Khor, or inlet, runs into the land to the N., and the W. side of the entrance is partly formed by the coast-reef, extending S. from a projecting part of the coast. Here a vessel may find good shelter from all winds. In the entrance is a shoal patch, the least water found on which is 4 fathoms; within are 5 fathoms, mud. There are some wells of good water near the shore, where are some date-trees; and there are the remains of a strong-built wall of unhewn stone, but no houses. The Shifting Peak, bearing E., leads to the entrance of this Khor.

Nahood is a good Khor, 3 m. to the N. of El Burk; at its entrance Jebel Tusi Sharm bears about N.E. In the neighbourhood of Mersa Nahood and El Burk, the range of hills converges towards the coast, the tops resembling the roof of a barn. Amongst these, there are two larger than the rest, called by the natives Jebel Tusi Sharm and Jebel Tusi Yemnee, or the Woman's Breasts. From El Burk they appear in the N. part of the range of hills, and then will be better known by having to the S. a detached piece of land, showing more like a barn than either of them.

Shifting Peak is in the second highest range of mountains to the W. of Nahood Hills, and is very conspicuous when seen from the N.

Opposite Nahood the inner channel is $1\frac{1}{2}$ m. wide between the coast-reef and a bank which extends E. from **Jezirat Mogid**, an island, lying 8 m. to W.S.W. of Nahood. About 11 m. further N. is **Ernege, or Khor Ermek**, a small inlet in the coast-reef, with 6 or 8 fathoms, water. Here are no houses nor huts to be seen, nor can fresh water be procured.

Between Nahood and Ermek is a bank lying parallel to the coast, called **Ohm Kergan**, forming the W. side of the Inner Channel, which is little more than a mile wide. The N. end of this rocky bank is 3 m. S. of Ermek; it thence extends 6 m. S., and is $1\frac{1}{2}$ to 2 m. wide. Its N. part is rocky, shallow, and uneven; on the S. part the water is somewhat deeper. Within this bank there is no coast-reef, and the mid-channel depth is about 20 fathoms; but there are two shallow patches at the N. end of it. Four m. to the N. of Ermek, is **Jafoof**, the coast between forming a point, from which a reef extends S. 2 m., with 2 fathoms on it, within which are 9 to 6 fathoms in Ermek anchorage. Between this reef and Ohm Kergán is a patch with $2\frac{1}{2}$ fathoms on it. From the last-mentioned point of land to Háli Point it is $7\frac{1}{2}$ m. N.W., the coast between forming a bay, with good anchorage in 5, 7, and 8 fathoms, well sheltered from N. and E. winds, but the coast is bordered with a reef. The Point of **Háli** is bordered with an extensive reef, and some patches: the anchorage off this point, in 6 or 7 fathoms, is rather exposed. There are no houses to be seen, but a town or village is said to be not far inland. N.W. by N., 8 m. from Háli Point, is a projecting point of land, called **Ras Abou Kelb**; the reef, about midway between, extending 2 m. from shore, with 4 fathoms close to it. Five m. to the N. of the point is Serome, and 4 m. further is Undareh, off which Jebel Háli bears E. $\frac{1}{4}$ S. Serome has a small anchorage for boats. The anchorage at **Undareh** is formed by a shoal of the same name, the S. part of which has patches that are dangerous. The safest channel, in or out, is to the N. of the reef. If going out through the S. entrance, run 3 or 4 m. to the S. of the anchorage before hauling to the W. The depth at the anchorage is about 7 fathoms. Upwards of 3 m. to N.W., is **Ras Abou Mutnah**.

Makasir is about 4 m. N. by W. from Ras Abou Mutnah, and nearly 11 m. S. by E. of Coomfidah. This place has good protection from S. winds, but there are some small patches in the entrance to the anchorage. The place will be known by the **Moolgamari Islands**, which are 3 m. to the W.N.W., and have anchorage all round them. At 6 m. N.N.W. of them is **Ohm-us-Saifa Island**; all are low sandy islands, covered with bushes, and there are some rocky patches in their neighbourhood, easy to be discerned. The best channel is between the islands and the main; or you may pass between the islands, avoiding the rocky shoals S. of them, and a rocky patch off the N. one.

COOMFIDAH is a small town, in lat. $19^{\circ} 7' N.$, lon. $41^{\circ} 5' E.$, surrounded by a wall, and is under the Turkish government: it has two forts towards the sea; and to the S., without the walls, is a mosque, with a minaret. It has a small bazaar, which affords sufficient for the consumption of the place: but by waiting a few days, supplies of cattle may be obtained from the interior. The best water on the coast is to be had here, and as quickly as the ships' boats can carry it off: it is brought down in mussucks, on camels, alongside the boats, and the casks filled. In July and Aug., good grapes are also to be had. The anchorage is formed by a low bushy island, off the port, which is surrounded by a reef, easy to be seen, and may be approached close in luffing up to fetch the anchorage. There is a small shoal to the N. of the island, and the best channel is between it and the island reef, where there are 7 and 8 fathoms. There is a narrow channel, of 5 or 6 fathoms, to the E. of the island, used by boats: it is formed by the island reef and a rocky spit off the town. There is also a shallow channel of about 2 fathoms to the N. of the small shoal in the entrance, but it is rocky, and not to be recommended. There is good, well-sheltered anchorage in $2\frac{3}{4}$ fathoms, mud, with the N. fort bearing E.N.E., and the S. fort E.S.E. The remarkable mountain Kaus Abou-l-Aya bears E. $\frac{1}{4}$ N. from this anchorage.

Mountains.—**Jebel Háli** Mountain is to the S.E. of Coomfidah, in the nearest range of hills: it is a very remarkable pyramidal piece of land, when seen from that place and to the N. of it; but in proceeding S. it quickly alters, and at Undareh it appears an oblong hill, with its N. part rounded off abruptly.

Jebel Dogar is a most remarkable piece of land, on the highest range of mountains to the N. of Coomfidah: on the S. side it runs off to a peak; but its N. extremity forms more like a quoin, the thickest part of which is to the N. Jebel Shahga, or South Peak, is a remarkable piece of land, on the second range to the N.W. of Jebel Dogar. **Kaus Abou-l-Aya, or Gose Abole Ire**, is in the highest range of mountains to the E. of Coomfidah; its N. brow forms a high mound until well to the S., where it becomes rugged: its S. brow has a small but conspicuous peak. This mountain may be seen to the N. of Ras-el-Askar.

The coast of the Hedjaz from Coomfidah to Leet, has a comparatively smooth and good navigation, but it is well to take a pilot. From Coomfidah the coast runs N. and N.N.W. to **Ras Mutweer**, a distance of 13 m., having several rocky patches and low islands between, at 1 to 2 m. from the coast. At 9 to 12 m. from Coomfidah are some patches in mid-channel, and to the W. of it. S.W. about $1\frac{1}{2}$ m. from Ras Mutweer is the N. end of a reef which extends $2\frac{1}{2}$ m. S.S.E., having two small islands upon it; and the coast-reef runs off W. 2 m. from the Ras, forming a point with 6 fathoms at its extremity; whence it runs N., and joins the coast. Between this and the reef last mentioned is a channel, a mile wide, with 5 and 6 fathoms on it; the channel to the W. of the reef, between it and the Farrar Islands, is 4 m. wide, with 12 fathoms on it, and at Coomfidah it is 8 m. wide, with 18 to 20 fathoms.

The **Farrar Islands** have their S. end in lat. $19^{\circ} 17' N.$, distant $5\frac{1}{2}$ m. from the coast; they thence extend 13 m. in a N.N.W. direction, all low sandy islands, with a few bushes. They are situated on the E. edge of the Outer Reefs, and forming the W. boundary of the Inner Channel. To the S. of these islands the edge of the reef is marked by rocks and rocky patches, with 18 to 20 fathoms close to it. The **Cuffeel Islands** are next to the Farrars, and are of a similar description, and similarly situated on the inner edge of the bank; they form a segment of a circle from W.N.W. to N. by W., for 9 m. From Ras Mutweer to **Ras Mahasin** it is 21 m. N.W. by N.; this is a long point, or tongue of land, running out to N.W., and is 5 m. N.E. from the N. extreme of the Cuffeel Islands. The coast between these places runs N. and N.W. from Ras Mutweer about 11 m. to **Dogar**. At this place there is good anchorage in 5 fathoms to the E. of a small patch which forms the roadstead. Here are a few huts, and the inhabitants are civil, but no fresh water to be obtained. Two reefs lie to the W. and S. of Dogar, extending about 5 m. S.S.E., with some small islands on them; they are from 1 to 2 m. off shore, and there are 6 and 7 fathoms between them and the coast reef. Some patches lie N.N.W. of them; and from these, others extend to W., with 6 to 8 fathoms between them to near mid-channel, where there are two small islands, with 12 fathoms close to the S.W. of them; these are about 2 m. S.W. of Ras Zoogabi. There is a reef to the N. of these islands. N. by W. $2\frac{1}{2}$ m. from them, and S. by E. $2\frac{1}{2}$ m. from Ras Mahasin, is a small island, with a reef running W. 1 m. from it.

The Channel is to the W. of all these islands and reefs, but to the E. of the Farrar, Cuffeel, and Serain Islands. It is nearly 4 m. wide, and has from 12 to 9 and 17 fathoms in it.

The **Coast**. The distance is 7 m. from Ras Mahasin to **Ras-el-Humar**, a tongue of land running S., and with the former forming a bight or bay in the coast, bordered throughout with a reef. In the mouth of this bay is an island, about 3 m. long N. and S.; and reefs and patches, with channels between them, extending from its N. end to the N. point of the bay. There are also reefs and patches on the E. side of the island in the bay; and off its S. end and W. side there are numerous reefs and rocky patches, with deep-water channels between, extending across the channel to Serain Island, a distance of 5 m. On a clear day, all these reefs may be discerned from aloft, by a difference in colour of the water.

SURREIN, or SERAIN ISLAND, is high, with irregular top, about 7 m. long and 1 broad; it is surrounded by a broad reef, and some patches on the S.E. part, which form the inner boundary of the outer reefs. It consists of madrepores and sand, and is not inhabited, there being neither water nor wood. There are some patches to the S.E. of it on the edge of the reef, which here bends to the S., and joins the Cuffeel Islands. There are 19 fathoms close to the N.E. of Serain, and to S.E. of it is a patch close to the reef; the best channel is between this last and another to the N.E. of it about a mile. From the E. end of Serain, the edge of the reef, studded with patches and rocks, runs N.N.W. about 10 m. to the S.E. end of **Jenarbet Island**, about 2 m. in length, very narrow, and surrounded by a reef; a similar island, about half its length, lies to the N.E. of it, also surrounded by a reef; both are low and bushy. N.W. by N. 8 m. from Ras-el-Humar, is **Ras-el-Askar**, and $5\frac{1}{2}$ m. farther on the same bearing is **Gillargin (Jilarjin)**, the coast being bordered with a coral reef throughout the whole extent. About W.N.W. 2 m. from Ras-el-Humar, and about mid-channel is a small island, surrounded with a shoal, with 15 fathoms on its S.W. side, and a patch about a mile to the W. of it. About $\frac{3}{4}$ and $1\frac{1}{2}$ m. N. by W. from this small island are two others, of a similar description; and between the N. one and the small island N.E. of Jenarbet is a small island, also surrounded with a reef, having a channel between, with 15 fathoms on it. Off the N.E. side of the small island E. of Jenarbet are two small islands, with reefs round them.

Channels. The Outer Reef hereabout approaches nearer to the coast than it does farther S. An extensive reef between forms two channels; that nearest the coast, the narrowest, being in one part, opposite Ras-el-Askar, only 400 yards broad, with a depth of 5 fathoms. **Ras-el-Askar** may be known by having trees on its points, there being no others on the shore near it. This Inner Channel is considered the safest, as the shoals can be much better seen than in the outer one,

although the outer one is almost always used when the wind is to the W., as by going through the inner one, they would, in all probability, have to tack to clear the coast, and regain the centre of the channel. In going through either of these channels, it requires a good look-out. When coming from the S., the extensive reef in patches that separates the channels will be seen, and the sand-bank on the S. part of it; these will be a good guide to judge your distance from the patches forming the W. side of the Outer Channel, on which the least water found was 3 fathoms. If going through the Inner Channel, pass in between the sand-bank just mentioned and an island S.E. of it, taking care to avoid a shoal of 2 fathoms in this channel about half a mile off the island, with 13 fathoms close to it. Or you may pass inside the island, keeping a good look-out for the patches off them, where the least water found was 3 fathoms. The clusters of patches forming the two channels of Ras-el-Askar have deep water between, and on many of them there are 2, 3, and 4 fathoms.

Jilargin, or Gillargin has good anchorage in 10, 9, or 8 fathoms mud. Going in from the N.W., after passing Shab Multhar, steer for the point of the reef off the entrance, and leave all the sunken patches that are visible on the left hand in passing them. At this place there is neither house nor hut.

Rahker lies N.W. by N. about $8\frac{1}{2}$ m. from the point of Jilargin, the coast between forming a bight, bordered with a coral reef, in which are several patches of 3 and 4 fathoms, with 20 and 24 between them. Rahker will be known by the high sand-hills close to the beach to the E.: it has good anchorage formed in a bight of the coast-reef, in 4 fathoms, mud, well protected. The reef here extends nearly 2 m. from the coast, and there are some rocky patches off the entrance, and also an extensive shoal in patches from S. by E. to S.W. of it, called **Shab Multhar**, nearly a mile off the coast-reef; and there are other patches to S. and to S.E. of it. Leet town lies 13 m. to the N.W. from Rahker, and for more than half the distance the coast-reef extends more than 2 m. off, after which its breadth decreases to about $\frac{1}{2}$ m., with some patches off it, and 6 to 10 fathoms at a short distance from it. The anchorages of Leet are formed and sheltered by patches, the largest of which is full 3 m. to the S.W. A vessel going to Rahker, and being just outside this patch, should first steer out about S.E. by S. for 7 m., taking care not to get into less than 14 fathoms, to avoid the extensive patches off the shore-reef; and when to the S. of these, an E. by S. course for 5 or 6 m. will carry her to the entrance of Rahker; but the soundings are very irregular, from 12 to 5 fathoms, rocks.

LEET HARBOUR. The inner anchorage (nearly 1 m. to the E. of Aga Island) is small, but well protected by two reefs off it, between which is the best entrance: the depths are from 4 to 6 fathoms mud. In leaving this place, if going to the S. of the E. patch, it will be necessary to luff close round its point to the S.W., to avoid many dangerous patches off the shore-reef. The best anchorage in the outer road is about $\frac{1}{2}$ m. to the S. of Aga Island, where there are 10, 12, and 14 fathoms water, mud. About $1\frac{1}{2}$ m. to the S.W. of Leet is an extensive reef of innumerable patches, with a channel on each side of it; the W. end of this reef bears S. by W., distant $1\frac{1}{2}$ m. from Aga Island. **Aga Island** is to the W. of Leet anchorage, and is a small sandy island, in lat. $20^{\circ} 9' N.$, lon. $40^{\circ} 11' E.$ The town of Leet consists chiefly of huts, with a few mud buildings, and is situated to the S.E. of the inner anchorage, about 1 m. from the beach. Fresh water can be procured at that distance, but other supplies are very scarce.

The N. extreme of the outer reef plateau (before described at page 168) lies to the S. and the W. by S. of Leet; where there is a rocky patch 10 m. S.W. by W. from Aga Island. All along this space there are many rocky patches, and deep water on the edge of the reef, but no passage through to seaward. About 3 m. within the edge of the reef is **Aboo Laad Island**, in lat. $19^{\circ} 58' N.$, nearly 12 m. S.W. by S. from Leet anchorage. (See page 169.)

Navigation of the Inner Channel, from Camaran Island to Leet. The Inner Channel, from Camaran to Leet, is marked on the W. side by numerous islands, rocks, and rocky patches, profusely scattered on and about the inner edge of the Outer Reef; and bounded on the E. side by the coast, which is bordered by a reef nearly throughout the whole extent, in which are several breaks, and some of them form secure anchorages. The S. end commences at Camaran, where it is only 700 yards wide between Camaran Reef and Ras-el Bayath, and the channel is nearest to the latter; from thence its breadth increases to about 2 m., until at the narrow part between Humreek Island and the Coast-Reef S. of Lobeia. The patches at 4 to 6 m. S. of Humreek may be passed on either side. The channel from Lobeia increases in breadth to 2 m. or more until opposite **Ras Musahrib**, where it is rather less than 2 m.: the soundings are moderate, and will be best understood by looking at the chart. Passing Ras Musahrib, it increases in breadth to 4 m. between **Toag Island** and the coast; and also within **Ashig Island Reef**, beyond the N. end of which it is 10 m. wide, and so continues until between **Dahret Jafree** and the Coast-Reef, where the breadth is reduced to less than 5 m., and farther on to less than 4 m., between **Ohm-el-Garib (Karib)** and the Coast-Reef off Gheesan, and so continues as far as Ras Toorfah.

Between **Shoorah** and the main the breadth of the channel is little more than 2 m.; but after passing **Theran**, where its breadth is 7 m., it increases to 10 and 12 m., till abreast of **Aboo Lelf Island** it is again contracted to 4 m., between the S. end of the reef extending from **Jezirat Mogid Island** and a projecting reef from the shore; and 9 m. farther it is only $1\frac{1}{2}$ m. wide, between the N. end of that reef and the reef off **Nahood**. Farther on, between the bank called **Ohm Kergan** and the Coast Reef between **Nahood** and **Ernege**, the channel is little more than 1 m. wide. The patch off the N. end of that bank may be passed on either side, and a course steered to pass at $1\frac{1}{2}$ or 2 m. to the W. of **Háli Point** and **Ras Aboo Kelb**. Hereabout are some reefs nearly in mid-channel, which may be passed on either side, as most convenient, always observing to keep a good look-out. If it be deemed advisable to pass to the E. of these reefs, it will be best to sail through **Undáreh Roads**, as good anchorage will be found there, if necessary. Having passed **Undáreh** and **Ras Abboo Mutnah**, the best channel to N. is between the **Moolgamari** and **Uhm-us-Saifa** Islands and the main to abreast of **Coomfidah**; or, if more convenient to pass between these islands, care must be taken to avoid the rocky shoals in their vicinity. At **Coomfidah** the channel is 8 m. broad, with 18 and 20 fathoms water. A course may be steered abreast of **Coomfidah**, about N.W. $\frac{3}{4}$ N. towards the S. end of the **Farrar Islands**, observing that the inner edge of the **Outer Reef** to the S. of the islands is marked by rocks and rocky patches, with deep water close-to. By passing near this edge, the patches lying about 3 m. to the S.E. of the islands will be avoided. The **Farrar** and **Cuffeel Islands** mark the W. edge of the channel, and may be passed at a moderate distance; and, should it be necessary, good anchorage may be found at **Dogar**. Having passed the **Cuffeel Islands**, reefs and rocky patches continue to mark the edge of the **Outer Reef** to abreast of **Serain Island**, off the E. end of which are two patches: between these patches is the best channel, about 1 m. wide, and from thence, still by the edge of the reef about N.N.W., to the S.E. end of **Jenarbet**, and the small island to the E. of it. Beyond these begins an extensive reef, near the middle, forming two channels; that, near the coast, being about 400 yards wide, with 5 fathoms in it. This is considered to be the best, but the W. one is wider. Either may be used, as most convenient, according to the direction of the wind: but a strict look-out for the shoal patches is absolutely necessary, particularly in the W. channel. Off **Jilargin** the channel is 2 m. broad; and at this place good anchorage may be had, if necessary. From hence to **Leet** the coast is entirely bordered by a reef; and there are several patches scattered about in mid-channel, leaving a clear space of only 2 m. between them and the **Outer Reef**. **Raker** has a good anchorage, which may be taken if necessary. Directions for it, and also for **Leet**, will be found on page 175.

Notice. Having completed the **Inner Channel**, so far as **Leet** and the N.W. end of the **Outer Reef**, we return to the S., and commence with the patches, shabs, and islands, on and near the **Outer Reef**. The chart must be principal guide as to their position, many being without names.

ISLANDS AND CORAL REEFS BETWEEN LOHEIA AND LEET.

Loheia and the islands **Bowahrid**, **Entookfash**, and **Kotáma**, are described at page 170.

Hamar Island, about 4 m. N.W. of **Loheia**, is low, about $2\frac{1}{2}$ m. in length, N.E. and S.W., and $\frac{3}{4}$ m. wide, having a fishing hut or two on its W. side. There is a small bight in the reef off its N.E. part, affording anchorage for small boats; also a little reef on the E. and W. sides, but it extends off the S.W. part nearly a mile towards the E. part of **Bowahrid Island**; therefore, when passing between it and **Bowahrid**, keep nearest to the latter island. Fire-wood may be had for cutting on **Hamar**, but no water. West from **Hamar** 9 m., and about 3 m. N. of the centre of **Entookfash**, is the low, sandy island, **Tullowain**, with a little rise on the E. part, and surrounded by a reef extending from it nearly a mile. N.E. by E., 6 m. from **Hamar**, is a small island near the coast-reef, and N. of it one mile is a rocky patch. Another rocky patch lies $3\frac{1}{2}$ m. E. of **Hamar**. Five miles to N.W. of **Hamar** is the low, sandy island, **Dorama**; and nearly 3 m. N.N.E. from it is **Adjuah Island**, its S. end being the highest part; and $3\frac{1}{2}$ m. further, N. by E., is **Zoorbat Island**, upwards of a mile in length, and very narrow. These three islands are on the E. edge of a narrow shoal bank, with 4 or 5 fathoms close to the E. of it. E. by S. of **Zoorbat**, about $3\frac{1}{2}$ m., or 8 m. to N.N.E. of **Hamar**, is a small sand-bank or island, called **Dyer Island**, and to the S.S.E. of it are two others of the same description, occupying a space of 2 or 3 m., and each of them surrounded by a reef. There is a narrow passage of 6 or 7 fathoms between **Dyer Island** and the other two, but it is best to pass either to the E. or W. of them. At 6 m. to S.W. of **Zoorbat**, and to the W. of **Adjuah**, are the two **Beree Islands**, small and low, with a fisherman's hut on the N. end of the inner one: they are surrounded by reefs, and have 17 fathoms between them. N.E., 3 and $4\frac{1}{2}$ m. from **Zoorbat Island**, are the islands **Jurab** and **Rakl**, two low, sandy spots, with reefs off them, extending 1 m. to the W.; and 1 m. S.W. of **Jurab**, is a small, rocky patch. To the N.W. of **Rakl**,

about $2\frac{1}{2}$ and 3 m., are the low, sandy islands, **Zajj** and **Zoha**, situated on an extensive bank of irregular soundings; 1 m. to the N. of **Zajj** is a 2-fathom patch, and $3\frac{1}{4}$ m. in the same direction from it is an extensive 1-fathom bank. **Shab Nusseeb** is a shoal about 2 m. long, nearly dry in some parts, and has a small patch above water, about 2 m. E. of **Jurab**.

BAHS, or **BAACE**, in lat. $16^{\circ} 0' N.$, lon. $42^{\circ} 39' E.$, is a small island, situate on the S. end of the innermost part of the Outer Reef, and has a patch of 1 fathom $\frac{1}{2}$ m. S. of it, and also a patch 2 m. W.N.W. from it, on a point of the reef about 3 m. E. from **Zajj**; S.W. of the last-mentioned patch, about $\frac{1}{2}$ m., is another, having a channel of 13 fathoms between them. **Bahs** is about 5 m. off the coast-reef, which is here the breadth of the Inner Channel, with a depth of 5 to 12 fathoms. From **Bahs**, the inner edge of the Outer Reef runs about 14 m. N., to a point on which there are 5 fathoms, about $4\frac{1}{2}$ m. off **Ras Musahrib**; but the channel is only $2\frac{1}{2}$ m. wide between it and the reef that extends about 2 m. off the **Ras**. N. by W. of **Bahs**, distant $6\frac{1}{2}$ and $8\frac{1}{2}$ m., are the islands **Aboo-Shejer** and **Gorab**, and about 2 m. S.W. of the latter is **Aboo Shad**. **Gutherban** and **Haw-roof** are two small islands, lying a little to the N. of **Bahs**. All these are low, sandy islands, situated on the inner part of the Outer Reef, between which, also to the N. of them, are many dangerous patches, rendering it unsafe to attempt to pass over the reef in this neighbourhood.

Loban Island, in lat. $15^{\circ} 52' N.$, lon. $42^{\circ} 16' E.$, lies N., at the distance of 10 m. from **Kotama Island**. **Loban** is composed of coral rock, with a layer of soft earth and sand on the top; it is low, and of inconsiderable dimensions, the water having made passages through the lowest part, and part of the sides are broken down. The reef upon which it is situated extends $\frac{1}{2}$ m. off the N. end, and nearly 2 m. from the S. end, with 18 fathoms close to. South of the island $4\frac{1}{2}$ m. is the N. end of a shoal, with 8 fathoms on it, from whence it extends S. There are 25 and 30 fathoms between. **Loban** stands about 10 m. within the edge of the plateau, called the Outer Reefs.

TOAG ISLAND lies about N. by E., distant about $9\frac{1}{2}$ m. from **Gorab Island**, and 4 m. from the coast-reef, with deep water all round it, and may be passed on either side; it is about 4 m. N. of the N. point of the reef, which lies $4\frac{1}{2}$ m. to the W. of **Ras Musahrib**. About N.N.W., 4 m. from **Toag**, is **Ashig Island**, with two others lying in the same direction, at $\frac{3}{4}$ m. and 2 m. from it. These islands are on a narrow bank, which extend about 7 m. N. by W. of **Ashig**, and $1\frac{1}{2}$ m. to the S. of it, the N. part having from 2 to 5 fathoms on it. Between this bank and the coast-reef, the Inner Channel is from 4 to 5 m. wide, with 8 to 10, or 12 fathoms in it; but, like **Toag**, it may be passed on either side. About N. $\frac{1}{2}$ W., 12 m. from the N. end of the last-mentioned bank, is the little island **Dahret Jafree**, with 10 fathoms all round it; and 2 or 3 m. to the N.W. of it, the islands **Jafree** and **Gateya**, situate on a bank, with 2 fathoms between them. These are also about 5 m. from the coast-reef and may be passed on either side, there being 10 fathoms within, and 25 to 30 on their outside. The inner edge of the Outer Reef, from abreast of **Ras Musahrib**, forms a bight with deep water to the S.W., and then extends N. to lat. $16^{\circ} 23' N.$ From this point of the reef, **Sail Seya** bears W., 3 m.; and the sea is apparently clear of shoals to the N., towards **Dahret Jafree**. It thence turns to the W. very irregularly 13 m., to **Sail Rubah**, and then to the S. in the same irregular manner to **Sana island**; then more to S. for some 20 m., and thence E. and N.E., round to **Bahs Island**, having several islands and patches on it, but no clear channel. The chart will indicate these islands; a full description will be of little use. **El Bother**, is a high, remarkable rock, about 5 m. W.S.W. of **Toag**. **Tokaila Islands** are two in number, which are also high and rocky, situated to the N.W. of **El Bother**; the smaller, distant 1 m. from it, is of triangular shape, and nearly $1\frac{1}{2}$ m. long and $\frac{3}{4}$ m. in the broadest part. The larger island is more of a horse-shoe shape, and upwards of 5 m. in circumference; it has a small village, a mosque, and some wells of brackish water. **Jebel Jing** and **Mafagain** are two small, high, and rocky islands, S.W. of **Tokaila Islands**, situated on a bank of shallow water.

Fusht Island lies to the S.W. of these, in lat. $16^{\circ} 11' N.$, and lon. $42^{\circ} 20' E.$; it is $2\frac{1}{2}$ m. in length, and 1 m. in breadth, at the S. end, and is of good height. There is a small fishing village, with a mosque in the centre of it; and near the village are some wells of brackish water. On the S. part of the island is a well of good water, but it is difficult to be obtained, the landing-place being rocky. About 7 m. W.S.W. of **Fusht** is **Sana Island**, situated on the outer edge of the reef, in lat. $16^{\circ} 7' N.$, lon. $42^{\circ} 14' E.$ (See page 167.)

To the N.W. of **Fusht** are the islands of **Erthain**, **Zimer**, **Beree**, and **Rafer Beree**, which are situated upon the centre of the banks, with very irregular soundings, and in some places only 2 fathoms. **Erthain** is long and narrow, and rather high, 4 m. W. of **Tokailah**. **Zimer Island** is of a triangular shape, about 8 m. in circumference; and about 1 m. N. of it is an island about 1 m. in extent. Between **Zimer** and **Erthain** is another small island. On the W. side of **Zimer** is a small village and some brackish water. Antelopes are plentiful. The bank on which these four islands are situated is very shallow; there are from 3 to 15 fathoms between it and **Tokailah**, 13 fathoms

to the N., 4 to the W., and 58 fathoms close to the S. of it. **Sail Rubah** is 3 m. to the N. of Zimer, and another islet stands between. There is a good channel between these and the Beree islands.

Dhu Dafr and the **Zoorats** are situated upon a bank of sand and coral soundings, shaped like a man's leg and foot, 3 m. to the W. of Sail Seya Island. The depth between the two Zoorat Islands is from 2 to 4 fathoms, and to the N. of them from 6 to 13 fathoms. Just outside the calf of the leg are three rocky patches, and between them and the reef N. of Sail Seya is also a rocky patch. There is a deep channel on either side of this leg bank, and the W. one is bounded by an extensive bank, which runs down towards Sail Rubah, leaving a channel between its S. point and that island, leading to the W.

Rafer Beree is the W. or outer island of the cluster now being described. Its S.W. point is in lat. $16^{\circ} 16' N.$, lon. $42^{\circ} 9' E.$; it is about $2\frac{1}{2}$ m. in length, N. by E. and S. by W., of irregular shape, and about a mile broad. About $1\frac{1}{2}$ m. E. of it is **Beree Island**, of similar length and breadth, with a small island and some rocks between their S. ends. At the N.E. end of the bank, and $3\frac{1}{2}$ m. from Beree, is **Maran Island**, and to the N.W. of that lies **Remain Island**. But there is no channel over this bank to the S. of the S. Dahret Simer and Muzaguf.

Dahret Simer, and Simer, are two islands that may be said to connect those just described with the Farsan group. As other two contiguous islands, with similar names, stand about 100 m. further to the N.W., it is well to define these as the S. Dahret Simer, and the S. Simer.

The **S. Dahret Simer** is a low sand and coral island, about a mile in length, surrounded by a reef, and about 6 m. to S.W. by S. from Muzaguf. There is a cluster of rocks about 4 m. to N.N.E. of it. **Muzaguf**, about 1 m. in length and $\frac{1}{2}$ m. in breadth, is in lat. $16^{\circ} 34' N.$, and 20 m. from the Arabian coast. It has four islets to the W. of it, and they are all situated on a shallow reef. To the W. of these islands is a channel, in a N.N.E. direction, with 7 fathoms in it. **Dahret Jafree** and **Jafree Island**, with **Gateya** or **Gutheir**, have been mentioned as standing on the W. side of the Inner Channel, distant 5 m. from the shore reef, having soundings of 12, 8, 4, and 2 fathoms between. The two latter are situated upon one bank, upwards of 2 m. N. and S. and $1\frac{1}{2}$ m. wide, with 2 or 3 fathoms between them. Dahret Jafree is surrounded by a separate reef, and there are 10 fathoms between it and the others. **Amnah Island** is 8 m. N.W. by W. from Gateya, with a small island to the S. of it, and a rock about a mile E. of its N. end. From 1 to 2 m. N. of Amnah, and abreast of Gheesan, there is a cluster of five islands, the N.W. called **Omel Curra**, or **Ohm-el-Kurh**, and the N.E. **Omel Currip**, or **Ohm-el-Garib (Karib)**: these five islands are situated upon a sand and coral bank, and there is a passage between them and the southern two, with 9 to 13 fathoms' depth. N.N.W. of Omel Curra, upwards of a mile, there is a 1-fathom patch; and there is a sunken patch at the same distance, S.W. of the island. **Ras Gheesan** (see page 171), a projecting point of the coast, lies $5\frac{1}{2}$ m. to N.E. by E. of Omel Currip. The narrowest part of the Inner Channel, between Omel Currip and the shore-reef of Gheesan, is 4 m. wide, with 9 to 14 fathoms. Remarks, about entering this Inner Channel from the centre of the Sea, will be found at page 154.

Jezirat Hibar Island, about $\frac{1}{2}$ m. square, and surrounded by a reef, is $7\frac{1}{2}$ m. W. of Gheesan, and $3\frac{1}{2}$ m. to N.W. of Omel Currip. About 5 m. W. of Jezirat Hibar is the E. edge of a triangular-shaped bank, about $6\frac{1}{2}$ m. N. and S., having six islands on it. On the S. point is **Sail Shertef**, about $\frac{1}{2}$ m. long; and $1\frac{1}{2}$ m. N.E. of it is **Doraker Island**, with 30 fathoms near its S.E. side. **Aboo Shoogar** is near its N.E. end, and has 24 fathoms near its E. side. This is a very small island, composed of madrepore, cracked and broken into numerous pieces, forming deep clefts, through some of which the water passes; while others are filled with sand and earth, where some jungle trees have sprung up. The bank from thence extends about 5 m. W., with 16 fathoms on its extremity; but on some parts it is very shallow. The other three islands lie to the N.N.W. of Sail Shertef. Aboo Shoogar is 7 m. to the S.W. of **Ras Toorfah**. (See page 171.)

SHOORAH ISLAND, in lat. $17^{\circ} 1' N.$, lon. $42^{\circ} 15' E.$, lies 7 m. to N. by E. of Aboo Shoogar, and 3 m. to W. by N. of Ras Toorfah, which forms the extent of this part of the Inner Channel, with regular decreasing soundings from the island to the Ras, near which are 7 fathoms. Shoorah is a small and low island, situated upon the E. end of a bank of rocks and sand, extending to W.N.W. nearly 7 m., with soundings of 2 to 12 fathoms on it. The bank lies to W.N.W. towards **Gorab Bank**, and between them there is a channel of deep water 3 m. wide. **Gorab Island** lies W.N.W., distant $13\frac{1}{2}$ m. from Shoorah, and near the W. end of the bank just mentioned; it is rather high, and little more than $\frac{1}{2}$ m. in length, with a small black rock off its N. end. Gorab Bank is about 5 m. long and 3 broad, with irregular soundings of 9 to 20 fathoms, on rocks and sand.

Theran Island, or Firan, is $9\frac{1}{2}$ m. N.N.W. from Shoorah, 7 m. off the coast, and on the W. side of the Inner Channel. The highest part forms a steep bluff to the W., which is 60 ft. above the sea, and has 25 fathoms pretty close to it: a small bank extends off the N. side of the island,

with bad holding-ground. This island lies E.N.E., $9\frac{1}{2}$ m. from Gorab, and there is a good deep channel between it and Gorab Bank.

THE FARSAN ISLANDS are the largest all along this coast, and are situated upon the extensive banks W. of Gheesan. They are two in number, but may be considered as forming one island, being connected by a sandy spit of shoal water, across which camels frequently pass from one to the other. On the E. side of this spit is **Khor Hasaif**, and on the W. side **Khor Bakarh**. They are of very irregular shape, and will be better understood by the chart than by any written description. The W. one is **Farsan Kebeer**, upwards of 30 m. in length from N.W. to S.E., in lat. $16^{\circ} 54' N.$, lon. $41^{\circ} 47' E.$ **Farsan Segeer** is on its N.E. side, 18 m. in length, and extends to lat. $17^{\circ} 1\frac{1}{2}' N.$ Although their whole breadth is only 12 m., they measure round their edges 130 m. The S.E. point lies 26 m. S.W. by W. from Gheesan, and N.W. 9 m. from Dahret Simer Island.

Hills and Land-marks. The land of Farsans of considerable height, interspersed with some plains and valleys. The hilly parts are coral rock, the most remarkable of which is **Jebel Cassar**, a small, round hill, E. of Tibtah Bay; **Jebel Marabah**, a table hummock, on an island near Farsan, about 5 m. N.E. of Tibtah Bay. **Jebel Munthak**, 11 m. N.W. of the last-mentioned, is a high island, lying in an E. and W. direction, having on its N. side the entrance to **Khor Suggeed**. **Jebel Momed** is a high hill, like a quoin, on the E. point of an island of that name, standing 3 leagues to the N. of the N.W. part of Farsan Kebeer. **Jebel Deesan** is a high hummock, on the S. part of **Jezirat Deesan** island, off the N.W. part of Farsan Kebeer, and forms the S.W. side of the entrance to **Khor Bakarh**. **Jebel Suffer**, or **Safar**, is an elevated part of the island to the N., with a tree on its top, and is to the S.W. of **Sail Abado** Island. Remarkable Bluff is of quoin-shape on some bearings, and from the S. appears like a hummock with a peak in the centre; it is situated on the S. end of the island, on the E. side of the E. entrance to **Goomah** or **Tibtah Bay**; there are also three remarkable trees 2 m. to S. of **Jebel Cassar**.

Channel. About midway between the S.E. point of Farsan Kebeer and Marabah Island, and near to Farsan, is the Island **Gomari**, situated on the W. side of a channel, through which vessels may pass from Gheesan to the S.W., and contrary. Half-a-mile E. of **Gomari** is a 2-fathom patch, and further E. are three other patches in the entrance of the channel, which, throughout, is about 2 m. wide. The shoals are numerous in this neighbourhood and about Farsan Island, and the eye must be the principal guide to a vessel entering either way. The surveyors seldom had much difficulty in seeing the reefs. Vessels, having occasion to enter this channel from the S.W., must avoid a bank that extends to the S. of the S.E. point of Farsan Kebeer $2\frac{1}{2}$ m., which from thence turns round to N.E., with 3 to 2 fathoms on it; the little Island **Hindeah** is to the E. of this bank, and 3 m. E.S.E. from the S.E. point of Farsan. At 1 m. S. by E. of **Hindeah** is a small island, surrounded by a shoal, and S.E. of it 1 m. is a patch of 1 to 5 fathoms.

Coolam Island bears due E. from the S.E. point of Farsan rather more than 3 m., with several small islands and rocks to the S., W., and N., at $1\frac{1}{2}$, 2, and 3 m. distance, on a bank that forms the E. and S. sides of the above channel. Off the bank, due W. of the S. end of **Coolam**, is a rocky patch in the channel, having 10 fathoms between it and the bank, and 15 fathoms on its W. edge. To the N.E. of **Gomari** is **Haffer**, a small rocky island, and a cluster of small rocky islands on the edge of the rocky bank, which extends about 5 m. to the E. of Farsan, and forms the N. side of the channel just mentioned. The N. islet of this cluster is called **Aboo Shoory**, and about $\frac{1}{2}$ m. to the N.E. of it is a bank of rocks and sand, with 3 to 15 fathoms on it; and between the S. end of this bank and **Aboo Shoory** there is no ground at 40 fathoms. The bank extends nearly 4 m. N.E., and is $1\frac{1}{2}$ m. wide.

Jebel Marabah Island lies to the N. of **Haffer**, and near a projecting point of Farsan Kebeer; it is about $\frac{1}{2}$ m. long, composed of rocks, and is the highest island in this neighbourhood. It has a flat top or hummock of the barn shape, is surrounded by a group of small low islands, and appears from the N. as if part of Farsan Island. **Jebel Abdoolad** is a small rocky island to the N. of **Marabah**, and is also surrounded by a group of smaller islands; it may easily be distinguished by a knob or bluff on its S. end. This island and group are situated upon a bank off the Farsan coast, which extends from **Marabah**, and forms a tongue or point, 3 or 4 m. N. of **Abdoolad** Island, having between it and Farsan a bight of deep soundings.

Munthak Island, mentioned above, in lat. $16^{\circ} 49' N.$, is only about 3 m. in length, E. and W., and 1 m. broad at the E. end, tapering to the W., where it is only $\frac{1}{2}$ m. broad: it is high, and composed of coral. To the E. and the S. of **Munthak** is **Khor Hasaif**, running about 8 m. into Farsan Kebeer; it has from 5 to 8 fathoms' depth, but is narrow and full of shoal patches; there are also some rocky islands on the W. side of it, and two small rocky islands, $1\frac{1}{2}$ m. E. of **Munthak** Island, on a reef (projecting 4 m. to the N., off **Jebel Guttah**), which forms the E. side of the

entrance; this dangerous rocky spit runs nearly 3 m. to the N. of these islands, being the extremity of the reefs on the N. part of Farsan Kebeer.

Khor Suggeed, or Segeer, to W. of Munthak Island, is an excellent harbour of more than 1 m. in extent, with 9 to 12 fathoms. Here is a small village and a grove of date-trees on its N. side, in which are many wells of good water. The houses are small, and built of coral, and are mostly in ruins; and there are no supplies to be obtained besides water. The anchorage is defended from all winds and sea; the entrance to it is $\frac{1}{2}$ m. broad, bounded on the S. by Munthak Island, and on the N. by five islets, off the most W. of which there is a rocky spit, extending to the S.W. $\frac{1}{2}$ m. into the bay, which must be avoided. There are some dangerous patches E., E.N.E., and N.E. of Munthak Island, distant from $3\frac{1}{2}$ to 4 m.; a vessel keeping in the line from Tahbik Island to the highest part of Munthak (bearing N.E. and S.W. from each other,) will clear them. The N. one of the five islets forming the entrance to Khor Segeer, bears W. by S. from the point of the spit. Having entered the bay and cleared the spit running off the W. islet, steer up to the N.W., and anchor off the grove of trees, in 12 fathoms, mud.

Tahbik, or Dthabuck, in lat. $16^{\circ} 54' N.$, lon. $42^{\circ} 3' E.$, bears N.E., and is distant 5 m. from the N.E. point of Munthak Island. At 1 m. to S.E. from it, there is a patch of 2 fathoms: W.S.W. $2\frac{1}{2}$ and 3 m. from this island are two rocky patches, which are the principal dangers in approaching Munthak Island from the N.

Sail Abado bears N.W. by N. 7 m. from Dthabuck, and S.S.W. from Gorab, distant 6 m. Dthabuck and Sail Abado are small coral rocks, of a round shape, and from 10 to 15 or 20 ft. high, spreading out at the top with a sharp circumference, and falling in considerably towards the base. They are called by some Pie Islands. A bank extends from Farsan Segeer to the E. of Sail Abado, consisting of shoal water and groups of small rocky islands.

Channels. Vessels coming from the N., must pass along the coast to Ras Toorfah; and thence steer to the W., to pass between Tahbik and Sail Abado; then for Munthak, if going into Khor Suggeed. There is a channel of deep water, 4 m. broad, between Jezirat Ahkbain and Gorab.

Vessels coming from Loheia, or Hodeidah, should pass a mile or two to the S. of Dahret Jafree, and then steer N.W. by W. for 30 m. to Tahbik; on this course she will pass about 2 m. to the S. of Sail Shertef.

Jezirat Ahkbain, the N. and largest of the Farsan Islands, is 7 m. to the N.W. of Sail Abado, and $7\frac{1}{2}$ m. W. of Gorab Island. It forms a narrow strip $\frac{1}{2}$ m. broad, and 2 m. long, with two small islands off its N. end. The bank extends 7 or 8 m. to the N.W. of it, with shallow, irregular soundings. **Ras Ruseeb**, the N. point of Farsan Segeer, is in lat. $17^{\circ} 1\frac{1}{2}' N.$, lon. $41^{\circ} 48' E.$ W.N.W. from Ras Ruseeb, distant $4\frac{1}{2}$ m., is the E. end of **Jebel Momed Island**, which is 2 m. long and 1 m. broad; the E. part forms a high quoin-shaped hill, the other parts low ground of sand and coral. The Island is nearly surrounded by deep water, of 15 to 20 fathoms mud. A bank runs off its N. end, with 3 to 8 fathoms on it; and at $3\frac{1}{2}$ m. N. of the E. part of the Island there is a patch of 2 fathoms. **Khynah Island** is $5\frac{1}{2}$ m. W. by S. of Jebel Momed; it is a low triangular island of sand and coral, 1 m. broad, surrounded by five islets, two of which are off its N. end, and on the W. a larger one; one on the S.W., and one on the S.E. They are all surrounded by a coral reef, which is connected with the bank that runs to the W., from the N. end of Farsan Segeer, and on which also stand Ahkbain and Sail Abado.

Dahret Matrhain and Matrhain are two islands to W.N.W. and to N. by W. of Khynah.

The N. point of Jezirat Deesan, in lat. $16^{\circ} 58' N.$, lon. $41^{\circ} 37' E.$, bears S.S.E. about 3 m. from Khynah; its W. edge extends $4\frac{1}{2}$ m. to S.: it is of triangular form, nearly 15 m. in circumference, and is generally flat near the sea, rising gradually towards the centre, having at its S. part a remarkably high hill. The S.E. part of Jezirat Deesan is connected by a bank of shallow soundings with the N.W. point of Farsan Kebeer, and there are two small rocky islands between them, and a larger on the S.E. part of Deesan, with a small boat's channel to the W. of it. The banks off the E. side have some dangerous rocks, but the other sides have deep water. A small island lies off its N. end, with deep water between them. On the S. side of the island are the remains of a village, consisting of about 100 houses, built of rough stones without cement, and near it a cemetery, containing about 1,000 Mussulman graves, and a tomb, enclosed by a wall. Neither wood nor water was found.

Triangular Island, standing in the same shoal bank, and bearing S.W. 3 m. from Ras Ruseeb, and 4 m. S.S.E. from Jebel Momed, is about 5 or 6 m. in circumference, on the S. edge of the bank that extends W. from Ras Ruseeb to Khynah Island. About midway between this island and Jebel Momed is an island about a mile in length, and three small ones due W. of it, all low coral islands. On the S. edge of this bank, and 4 m. to the W. by N. of the Triangular Island, is a patch of 1 fathom. It is about $2\frac{1}{2}$ m. from the N.E. side of Jezirat Deesan, and there is deep water

close to the S. of it. At 5 m. E. of Ras Farsan Kebeer is the N.W. part of Farsan Segeer, where there is a small village, called **Ketib**, on the highest part of the land. Between these is the entrance to **Khor Bakarh**, formed between the Farsan Islands, and runs in to the S.E. about 14 m. The outer entrance is between Khynah Island and Jezirat Deesan. There are irregular soundings of 4 to 8 fathoms in the innermost half, and the outer part has deep water. It is not advisable for ships to run entirely up, as some parts of it are so narrow, that they would have to warp a considerable way out against a N.W. wind. The bank which connects Jezirat Deesan with Ras Farsan extends 4 or 5 m. within the Ras, on the edge of which a ship may anchor in 16 to 20 fathoms, $1\frac{1}{2}$ or 2 m. E. of the Ras. At $2\frac{1}{2}$ m. E. of the Ras, and on the edge of the bank, is a small patch with 3 ft. water on it; and about $4\frac{1}{2}$ m. S.E. of the Ras, is the village of **Sayel**, with Jebel Sayel about 2 m. to the S. There are two or three wells of very good water just within the narrowest part of the Khor, close to the beach, on the W. side. The N.W. part of Farsan Kebeer is high and rocky. (See top of page 179.)

The Sarso Islands (described at page 168) lie 4 m. to S.W. of Jezirat Deesan. The N.E. one is called Sindi Sarso. They are two narrow coral islands, about $\frac{1}{2}$ and $\frac{1}{4}$ m. broad, and both of considerable height, the outer one being 160 ft. above the level of the sea, with sharp points of coral above the surface. The channel between them has from 14 to 20 fathoms in the middle, but is narrow and blocked up at the S.E. end by small islands and shoal water. It affords good protection from S. winds, but it is not advisable to anchor in it with N. winds, as there would be some difficulty in getting out. These Islands are situated on the E. verge of the extensive shoal water called Shab Farsan, which extends hence about 10 m. to the W., and 18 m. to the N.W. There is a small rocky islet close to the W. of Sarso, about a mile from its N.W. point, which, from its singular appearance, is called **Cape Island**, or **Button Rock**, appearing like a button standing on its shank.

Umal Bisran is E. by S. about 6 m. from Sarso; this island is about 5 m. round, rather high, with a valley in the centre, into which the salt water flows; it abounds with wood, but there is no fresh water. It is about a mile distant from Farsan Kebeer, and N.W. of it from $1\frac{1}{2}$ to $2\frac{1}{2}$ m. is a bank, with 1 to 2 fathoms water on it. Nearly 3 m. S. of Umal Bisran is the N. part of **Zelfeef Island**, of about $7\frac{1}{2}$ m. in length, and 2 m. broad; the land is high, and a small cove runs up into the N.W. part of the island, from which fresh water may be procured, but with some difficulty; wood may also be cut here, and antelopes are to be found. Zelfeef is situated on the same bank with Umal Bisran and the shoal N. of it, which bank extends to the S.E., and includes Doomsook and Goomah Islands. There is a deep channel between this bank and Farsan, from 3 to 4 m. wide, and also a deep channel between it and the outer bank or reef, called Shab Farsan. To the S.W. of Zelfeef, on the reef, is a chain of low sandy islands running in a S.E. direction, with very shallow water about them. S.E. from Zelfeef $1\frac{1}{2}$ m., and on the inner edge of the same bank, is the island **Selwan**, about 2 m. in length, high, and of coral formation, having shallow water on the S.W., and deep on the N.E. side. E. by S. $7\frac{1}{2}$ m. from Selwan, is the island Goomah, having three high coral islands between, and on the same bank.

Goomah Island is of circular shape, and 9 m. round, with a deep gut or small khor on its S. side, and a rocky spit extending nearly a mile off its N. end, with 9 fathoms close to it, and less water towards the main. This Island is at the end of the deep-water channel, is of considerable elevation on its S. part, and has a remarkable sand-hill on its N. end, to the E. of which is a small fishing village. There are some wells of brackish water, but no cattle or other supplies. There is a very good bay on the N. part of the Island, called **Khor Goomah**, the E. part of which is called Tibtah Bay, affording protection from all winds. It is formed by a bight in the S. part of Farsan Kebeer Island, is 7 m. in length E. and W., and at the narrowest part is $1\frac{1}{2}$ m. broad, and the same distance from the N. end of the rocky spit on the N. side of Goomah and the main. The deepest water is on the N.E. side of Goomah, where in the centre are 18 fathoms. The rocky spit bears from the sand-hill N.E. by N. At the N.E. part of the bay is a well of fresh water, but it is very scarce. Farsan village is about 2 m. to the N. of it. In this part of Khor Goomah is **Tibtah Bay**; it is only a small merza for boats. Jebel Cassar, bearing E. by S., is the leading mark for the harbour. Supplies of any kind are not procurable here. Nearly 3 m. S.S.E. from Goomah is **Doomsook Island**, situated on the same shallow bank. This Island is high, about 7 m. in circumference, with a khor in it of 15 and 20 fathoms mud, which nearly divides it in two: there is no fresh water, but plenty of antelopes. To the S. of Doomsook are two circular banks, in the centre of the deep channel: the least water found on them is 6 fathoms, sand and rocks. Doomsook is 11 m. to the N.E. of **Murrak**, one of the outer islands on the **Outer Reef**. (See page 168.)

Ohm-ez-Zahil and **Mahamah** are two little islands between Doomsook and Murrak; they are situated near the inner edge of the Outer Reef, about 1 m. apart, with 6 fathoms between them.

ISLANDS AND REEFS BETWEEN RAS TOORFAH AND LEET.

Ras Toorfa and **Shoorah Island** have been described (at pages 172 and 178.)

Theran, or Firan Island, in lat. $17^{\circ} 9' N.$, lon. $42^{\circ} 10' E.$, stands $9\frac{1}{2}$ m. about N.N.W. from Shoorah, and 7 m. from the coast. It is 60 ft. high, and has deep water (25 fathoms) pretty close to it. (See also page 176.)

Rocky patches on W. side of Inner Channel. The first is a patch of 2 fathoms, lying N.W. $7\frac{1}{2}$ m. from Therán Island, and 11 m. from shore; 18 fathoms are close within it. W. about 2 m. from this patch is another, a rocky patch, of 2 to 4 fathoms, with 30 fathoms between them. At about 2 m. farther N.W., is a rocky patch ($2\frac{1}{2}$ m. across,) with 3 or 4 fathoms on it, and 18 close to the W. of it. W.N.W. 22 m. from Therán Island is the S. end of **Mamali Segeer**, a narrow coral reef, over which the sea breaks in some parts, extending about 10 m. N.N.W., with a rock about 15 or 20 ft. above water at the N. end called **Mutbarhain**. E. by S. 13 m. from Mutbarhain, or 18 m. to N.W. by N. of Therán, there is a 3-fathoms' patch, with 33 and 36 fathoms close to it; this is 13 m. from shore. One m. S. of Mamáli Segeer is a rocky patch, with 47 fathoms between; and from $3\frac{1}{2}$ to 5 m. to the E. of its S. end are three rocky patches. At 5 m. N. by E. from Mutbarhain, is the E. end of **Mamali Kebeer Shoal**, extending W. by N. 9 m., of a triangular form, being 5 m. wide at the W. end, which lies N.E. and S.W.; it is full of patches, with deep water between them. This shoal lies 13 m. from shore, to the S.W. of Mukérah. A rocky reef lies to the N.W. of Mamáli Kebeer; it is S.S.W. 10 m. S.S.W. 10 m. from Kotumbal Island, and the same distance from Widan (the nearest shore), it is about $1\frac{1}{2}$ m. long; and to the S.E. of it 1 m., there is a rocky patch, with 19 fathoms between them; there is no ground at 30 fathoms, at 1 m. within. To the S. of the latter, at 2 m., is a 4-fathoms' patch.

Caution. The chart alone can guide a vessel, if by an error in reckoning she finds herself amongst these dangerous shoals. They exist to the S.W. of Mutbarhain, at 10 m.; to the W. of Mamáli Kebeer, at 10 to 15 m. Others to the S.W. and W.S.W. of Simmer, at 12 to 14 m., or half-way to the Wusaliat Islands. Others half-way from Dahret Simmer to those islands: and again several clusters from Dahret Simmer to the N.W. by W. to within a few miles of Dahret Aboo Masáli; (page 168.) We may repeat then that there is no safe channel across this outer plateau between the Farsan Islands and Aboo Laad, the nearest island to Leet.

N. Simmer Island, in lat. $17^{\circ} 47' N.$, lon. $41^{\circ} 23' E.$, lies W. by S. distant 19 m. from Widan, or W. by S. $\frac{1}{2}$ S., 15 m. from Kotumbal Island. This Island is $1\frac{1}{2}$ m. in length, E. and W., and half-a-mile wide; it is very low, composed of coral and sand, and principally covered with decayed wood. The soundings are deep around it; and if anchorage is required, it may be conveniently obtained either upon, or on the W. edge of, the shoal to the N. and the N.E. of it. There are two small rocky patches $3\frac{1}{2}$ m. S.E. of the Island. There is a shoal to the N. and N.E. of Simmer Island, 5 m. in length and nearly 3 m. broad: the soundings obtained on it are from 3 to 19 fathoms; but there may be spots with less. On its W. edge are 13 fathoms, mud, gradually increasing in depth to the N.W. This shoal commences about $1\frac{1}{2}$ m. N.E. of the Island, and there is no bottom at 50 fathoms midway between them. N.E. 6 m. from the Island, is a rocky patch.

N. Dahret Simmer Island, lies 14 m. to W. by N. from Simmer, surrounded by a reef, with 7 fathoms close to the N. of it. There is a rocky shoal, with 1 fathom, at $2\frac{1}{2}$ m. to the S.W.; and another to W. by N. $1\frac{1}{2}$ m. Another at 9 m. to W.S.W.; and several others to N. and to N.W.

Jezirat Mogid, in lat. $18^{\circ} 13' N.$, lon. $41^{\circ} 19' E.$; at 26 m. to N. by W. of Simmer, and 8 m. off Nahood Harbour on the coast, which bears E. by N. from Mogid; it is a low, sandy island, with a large reef round it, which is connected to a bank of rocks and sand that forms the W. side of the Inner Channel, and before spoken of. Ten miles S.E. by S. from Mogid is a rocky patch, on the S. end of the aforesaid bank; and, about $\frac{3}{4}$ m. S.E. from the last, there is a patch of 7 fathoms, at the distance of 4 m. from the coast-reef, having 30 fathoms and upwards between. From the rocky patch, the E. edge of the bank extends N. 12 m., narrowing the Inner Channel from 4 to $1\frac{1}{2}$ m. opposite Nahood, where the bank terminates. The S. end of the bank is narrow; but opposite Mogid its breadth increases suddenly, the E. edge extending nearly 6 m. from that Island. The depths on it are various and irregular, from 2 to 30 fathoms, the former being found $3\frac{1}{2}$ m. E.N.E. from the island; and there are 4 fathoms 2 m. N. of the rocky patch, with 26 fathoms between.

Shoals. W. of the S. end of this bank, about $2\frac{1}{2}$ m., is a rocky bank, 3 m. long, with 4 to 13 fathoms on it; and at 7 m. further to W. by N., there is another.

Ohm Kergan Bank (described page 173), has its S. end about 2 m. N. of Jezirat Mogid Bank. At 7 m. to N. of Jezirat Mogid, and nearly 4 m. W. of Ohm Kergan Bank, is the S.E. end of a half moon-shaped rocky bank, on which the five Hadarah Islands are situated, and which extends

from thence N.W. and N., about 7 m. The Hadarah Islands are low and sandy, and covered with bushes, giving name to the bank on which they are situated. **Gad Hadarah, or Kadd Hadarah**, the N. one, is a low, sandy island, with an extensive reef lying N.W. and S.E., having a channel between it and the N. end of Hadarah Bank, with 14 to 23 fathoms water. Nearly 3 m. E. of Gad Hadarah is a similar Island, on a reef that extends N.W. from it a short distance. Nearly 2 m. E. S.E. from this island is a patch of 2 fathoms; and at $\frac{1}{2}$ m. to S. by W., another of 1 and 3 fathoms, with a channel of 17 fathoms between; and 2 m. E. of the S.E. of the Hadarah Islands, there is a patch of 1 fathom.

Ul Gereef is an extensive rocky bank, full of dangerous patches, upwards of 8 m. in length, N. and S., and 4 m. in breadth; it lies 5 or 6 m. S.W. of the Hadarah Bank, and 8 m. to the W.N.W. of Jezirat Mogid.

Jezirat Gootna lies about 9 m. W.N.W. from the Hadarah Islands; its S. point is in lat. $18^{\circ} 27\frac{1}{2}'$ N., from whence it extends nearly 5 m. N., and is nearly 2 m. wide in the broadest part. It is a low coral island, with bushes, and is surrounded by a reef which extends off nearly 3 m. to the S.E., with some large rocks above water, like small islands, and several shoal patches beyond, which lie out at 7 m. to the W. of Gad Hadarah. The soundings to the E. of Gootna are 30 and 35 fathoms, mud, decreasing gradually to the coast. The other sides have deep water.

Jebel Sabyar is 2 m. N. of Jezirat Gootna, and is about 2 m. square and 60 ft. high, sloping a little at the top, towards its rugged sides. On its W. side is a village of fishermen's huts.

Ferandeer Islands bear N. by W. nearly 5 m. from Jebel Sabyar; they are two small oblong, irregular, table-topped, black rocks, about 40 ft. high, situated upon the outer reefs; and N.N.W., about 5 m. from these rocks, is the low sandy island **Dubarah, or Dubareh**. To the N.W. of this island, the central portion of the Outer Reefs plateau (right away to Abou Laad) is a complete blank on our charts.

Intricate channels. Between the Ferandeer Islands and Jebel Sabyar, between Jebel Sabyar and Jezirat Gootna, and between the latter and Ul Gereef Bank, there are said to be intricate channels, leading to the W. and S.W. to sea, passing between sand-banks and dangerous patches of sunken rocks; but the pilot refused to take the surveying ship. By a single glance at the chart, it will be readily seen that there is not any safe or proper channel that ships could attempt.

The edge of the plateau, on which the Outer Reefs lie, trends above Ferandeer Island to N. by E., for some 9 m.; then to N. by W., for 15 m., where it is about 4 m. or 5 m. to the W. of Uhm-us-Saifa Island. This part, however, has been little examined, and the tracing of the edge, that bounds the Inner Channel, is merely an imaginary line.

Three islands, Doshágiya, Mooskah, and Tedkar, lie on the plateau to W.S.W. of Coomfidah, from 25 to 30 m.

Rocky shoals along the Inner Channel. Due E. from Ferandeer, about 6 m., or nearly in mid-channel, is the S. end of some rocky shoals, which extend to the N. about 4 m., the N. part being about 3 m. off the coast: they are in broken ridges, having some parts above water; and to the W. of these, 2 and 3 m., are three rocky patches. Three or 4 m. to the S.W. of Undáreh are some dry reefs, to the N.E. of which is Undáreh Reef, which shelters the anchorage, (page 173.)

The Moolgamaree (Uhm-ul-Gomari) and Uhm-us-Saifa Islands, and neighbouring patches, have been mentioned (page 173); all these patches are easily discerned. N.E., 2 m. from Uhm-us-Saifa Island, is a rocky patch, with 15 fathoms between. At 1 league to the E. by N. of Saifa, there is another islet, with a passage between it and the shore-reef. To the W. by S. from Coomfidah, at 1 m. and 3 m., three rocky patches lie. Also several patches and low islets extending 4 m. to the S. of that place; some of these are about 1 m. off shore, with from 6 to 12 fathoms between them and the coast-reef.

COAST FROM LEET, TO JIDDAH, AND GULF OF AHKABA.

Leet Harbour and **Abou Laad**, the island 11 m. to S.W. of it, (page 175), have been described. W. by N. from Leet, distant 8 m., is the E. point of **Shab-el-Jefeen**, which extends from thence for 8 m. in a W.N.W. direction, parallel to the long island, **Jezirat Kishran**, in patches to between Summar and Kishran. The soundings are mud about the E. point of this Shab, and a vessel can anchor on the inner part of its point, just to the S. of the discoloured water, but the locality must be guessed by the eye.

Two shoal patches lie at 2 and $2\frac{1}{2}$ m. to the S. of the E. point of Shab-el-Jefeen; these are dangers in middle of the Inner Channel entrance. A ship had better borrow towards Shab-el-Jefeen. The shoal, at the edge of the Outer Reefs, lies only 4 m. further to S. (See Abou Laad, page 169).

Summar anchorage is on the E. side of the shoal forming Kishran anchorage, and has 6 fathoms, mud. This is preferable to Kishran, which has a rocky bar at its entrance, with $2\frac{3}{4}$ fathoms on it; the bar appears to connect the coast-reef off Kishran, with a shoal to the E. of it, by which the anchorage is formed, with 5 and 6 fathoms (mud) in it. In a S.W. wind, a heavy swell rolls into this place, and the surf breaks on the bar. Tower Hill bears N. by E. $\frac{1}{2}$ E. from the entrance.

Merkat is 11 m. N.W. from Kishran: the anchorage is just to the S. of the shoals off it, and affords a little shelter from W. winds. Marram is 8 m. N.W. $\frac{1}{2}$ W. from Merkat, and W. $\frac{1}{4}$ S. from Tower Hill: the anchorage is bad, there being straggling rocks in it. A vessel wishing to stop here had better anchor outside the rocks off it. **Detached reefs.** Many of these dangers lie off this coast. Two reefs lie about 8 m. to S.W. of Kishran anchorage. Another at 6 m. to N.W. of them. Another at 3 m. to the S. of Merkat. Two more off Ooshrah, midway between Kishran and Merkat. To the W.S.W. of Merkat, there is a cluster, and more at half-way to Shejer Reefs.

Shejer Reefs, a cluster of dangers, in lat. $20^{\circ} 20' N.$, lon. $39^{\circ} 34' E.$, lie about 5 to 7 m. off the coast, opposite Marram Village. The Inner Channel, between them and the Marram Reefs, is 3 m. wide. But to the E.S.E., towards Merkat, there are numerous shoals; and at 3 or 4 m. to the N.W., there is another cluster. Doubtless, many others exist, for this portion of the Red Sea has been little sounded.

KADD 'OMAIR, or Gad Amare, in lat. $20^{\circ} 16' N.$, lon. $39^{\circ} 24' E.$ (the N.W. extreme), is the outermost cluster of breaking reefs to the W. of **Leet**. It extends for 2 m. to the S.E. This cluster lies 10 m. to the S.W. of the Shejer reefs, and 17 m. off the Hedjaz coast. From Kadd 'Omair the Tower Hill bears E. by N. $\frac{1}{2}$ N., distant 33 m.

Tawil Raghwan, a remarkable reef, 2 m. long, N.W. and S.E.; and lying 7 m. off shore, bears N. by W., 20 m. from Kadd 'Omair. Like this last reef, it may be frequently seen by vessels proceeding up or down the sea. Gutta-el-Raghwan is another patch, lying about half-way towards the shore of Raghwan. Further to the S.E. about 4 m., and at the distance of 2 m. from the coast, lies another reef, **Guttah-el-Aboo-Dooda**.

Aboo Shaok Reefs, to the S.W. of the village of that name, are about 10 m. to the N.W. by N. of Tawil Raghwan Reef. In this space, between the villages which give names to these reefs, several others exist, as the Bahair, Gad-el-Shaiba, Magradeeb, Gad-el-Goofs, and Mustabat Reefs. Channels do exist between them, but very difficult ones, and the shoals are so numerous that they may be considered as forming a connected line of shoals. Ships should not cross them.

The Coast. Aboo Shaok, or Abbooshoke, is 34 m. N.W. by N. from Marram: this place has excellent anchorage in 6 fathoms, but the entrance is very narrow between the reefs off it. Jebel Aboo Shaok bears from this place E. $\frac{3}{4}$ N. Between Marram and Aboo Shaok are Shejer, Amare ('Omair), Sodah, Aboo Dooda, Raghwan, Shaiba, Bahair, Maktar-Rijmah, Goofs, and Mustabat. Three miles to the N. of Aboo Shaok is **Geedan**, where there is anchorage, tolerably sheltered, in 4 fathoms, from W. winds, but open to the S. **Jebel Aboo Shaok**, bearing E. from this anchorage, is a small two-knobbed hill, about 12 m. from the coast. Mersa Goofs is only a small bight in the coast-reef, about 8 m. to the S.E. of Geedan: the anchorage is in 11 fathoms, on rocky bottom, but affords no shelter. **Samaima** is 22 m. N.N.W. from Geedan, and 14 m. to the S. of Jiddah. The anchorage in the roads affords tolerable shelter in 9 fathoms, mud. From Samaima the coast trends about N. by W. nearly 5 m.; it then turns in N.E. $1\frac{1}{2}$ m., and then suddenly to N. by W. 2 m.; forming a low sharp point, called Ras-el-Aswad, from which Jiddah bears N.N.E. 8 m.; and from Jiddah the coast trends N.W. 3 m. to Ras Gahaiz. Between these projecting points the coast forms a bay, bordered with a reef, in which are several others, forming channels and anchorages. S.W. $1\frac{1}{2}$ m. from Ras el-Aswad is the little island, **Jezirat Gorab**, situated on the shore-reef.

Off-lying Reefs below Jiddah. Dangerous isolated reefs lie off shore; one of them is 9 m. off. **Gutta Geedan** is a cluster which lies 8 and 9 m. to the W.N.W. of Geedan, and at 12 m. to the N.W. of Aboo Shaok Reefs. There is also a reef midway between this cluster and the coast at Dumroor, off which place the coast-reef extends $1\frac{1}{2}$ m. Gutta Tuttefah (Kadd-et-Teffah) Reef lies 1 league to the N. of the last, and 4 m. off shore.

A bank of soundings, 12 m. long N.N.W. and S.S.E., and 8 m. broad in its central part, lies about 4 m. off the coast, between the last-named reefs and Jiddah. On this bank there are three breaking shoals, with deep channels between; the *Benares* worked among and between them and the shore. The S. one, *Ulcusser Elyemmarneer* (El-Kasr-el-Yemeniya), or the Right Castle, lies 6 m. to the N.W. of Kadd et-Teffah. The middle one, *El-Kasr-esh-Shamiya*, or the Left Castle, is 4 m. to N.N.W. of the other. The N. patch is a cluster of three or four shoals, called **Cobain**; all are breaking shoals. **Urgo Gorab** (Irk-el-Gorab) is a reef about 4 m. to N. by W. of Cobain, with no bottom at 120 fathoms close to its W. side. It lies $4\frac{1}{2}$ m. to S. by W. of **Moosmari**. These are both breaking reefs, requiring particular attention when proceeding to or from Jiddah.

Mountains and Landmarks. Jebel Sardeeah is a remarkable peak on the highest part of the land in the distant range to the S. E. of Jiddah and to the N. E. of Marram; and a little to the E. of it is a peak, still more remarkable, by which it may be known. Sugar-Loaf is a peaked mountain, its tops forming three small peaks, to the E. of Kishran: it is in one with Jebel Sardeeah and Tower Hill. The range of hills from the N. converge towards the coast between Marram and Kishran, and the Tower Hill is a little inside the extreme of the range at Marram: it is a remarkable piece of broken land, not unlike a tower; but off Kishran, and to the S. E. of it, it forms with a double rugged top, and appears much larger in this last direction: the piece of land outside of it forms two round hills. First and Second Peaks are S. of Tower Hill: those at Marram are the highest peaks on two sloping mountains, like quoins: they both form with two peaks each. At Kishran there is a peak on the second range, called West Peak: it is between the first peak and Tower Hill: and the second peak in this direction forms a round mound on the high land to the right of the first peak, with a peaked elevation on each side of it.

Jiddah Land-marks. North Hill is a high hummock behind the N. extreme of the near range of hills. Oomarrar (Uhm Ahrar) is a rugged hill at the N. extremity of the near range of hills; it has something of the quoin shape, with its bluff to the N. W.; when in one with the former hill, it bears N. E. Jebel Yemeneer, or Sugar-Loaf, so called from its resemblance thereto, when in one with the mosque, bears E. by N. Jebel Addar, or Saddle Hill, is the highest land about Jiddah, and in the centre of the range; it is sunk in the middle with a N. and S. brow; the N. is in one with the Admiral's house on the N. W. extremity of the town when bearing E. Sonnam is a small peak on the highest part of the near high land, on the S. side of the bay, in one with Ras-el-Aswad and the Moosmaree Reef, when it bears E. $\frac{1}{2}$ N. There are many mosques or minarets, but the most conspicuous one in the centre of the town is the one used, and when in one with the flag-staff, bears N. E. by E. The flag-staff is planted in the fort at the S. W. angle of the town. The fort forms in two octagons, in the N. one of which stands the flag-staff; the other part is called the South Octagon, and the centre of it is on with the mosque when in the middle of the inner gate-way off the Berry Reef. The Eastern Tower is a low white building on the S. E. extremity of the town wall, and is not much higher than it; when it is in one with the Sugar-Loaf, it bears a little to N. of E. by N. Moosmaree is a breaking patch nearly 5 m. from the shore-reef, and the same distance from the rocky bank Maru-wiya, bearing S. W. close to the W. of Moosmaree. There is no bottom at 120 fathoms.

Jiddah is one of the most considerable places in the Red Sea; it is in the province of El-Hedjaz, situated in a low, sandy, and extensive plain, in front of a range of hills 10 m. distant from the sea; the land, farther in the interior being considerably higher and mountainous. The town, with its minarets, being white, has an imposing effect from the sea; it is enclosed by a wall $\frac{1}{2}$ m. square, with small towers at intervals, and the angles towards the sea are commanded by two forts, with about ten embrasures each; but there are few guns mounted. In the N. fort is a house, generally occupied by the officer in command of the troops; the S. one forms in two octagons joined; and in the N. part of it, which is the smaller octagon, stands the flag-staff. There are three entrances to the town on the sea side, of which the centre and only public one is that at the jetty, but the others are allowed to be used occasionally. There is also a gate on each of the other sides: that on the S. is seldom opened; the N. one is common to all; but to the E. is the Mecca Gate, through which none but the professors of Islamism are allowed to pass. On the N. side are three wind-mills, near which is an extensive tomb, asserted to be that of our mother Eve, and said to be 50 cubits long by 12 broad. The streets of this place are generally very narrow and irregular, and the houses are mostly composed of madrepor. There is an extensive bazaar, tolerably well supplied, and there is a bazaar-master; but strangers are often charged exorbitantly. The only scarce article is biscuit. Good water is scarce. Live stock must be obtained from Mecca. There is nothing considerable produced at Jiddah or in its vicinity, as an article of trade, but from Suez they receive the most useful European articles. The highest mosque in the centre of the town is in lat. $21^{\circ} 28' 20''$ N., lon. $39^{\circ} 12'$ E.

JIDDAH HARBOUR is, perhaps, the most extraordinary of any so called, as to its figure, and is so well protected from all seas, that there is comparatively smooth water whatever winds may blow. It lies in a N. and S. direction, the utmost breadth being 780 yards; the narrowest part, facing the town, 340 yards; and the entrance to it, properly called the Gateway, is 250 yards. This space is part of a streak or narrow channel of irregular soundings, extending along the coast-reef, which is bounded on the N. by Ras-el-Gahaiz, to the S. by Ras-el-Aswad, and to the W. by many breaking reefs, small islands and sunken rocks, which have deep channels between them. The reefs to the W. of the harbour form in three clusters, containing innumerable patches, and running in a line parallel with the coast, stretching towards the two capes, whose distance apart is

10 m. On the S.W. part of the outermost cluster of these reefs, and distant from them $\frac{1}{2}$ m., is a dangerous patch of $1\frac{1}{2}$ and 2 fathoms, called **Maru-wiya**; and at 8 m. to the W. of the town, is the outer extremity of a bank of rocks and sand, with shoal patches on it, which is the W. danger off this part, and is hereafter fully described. The eye is the best guide to avoid the numerous reefs in clear weather. The tides are so influenced by the winds, that it is impossible to establish a correct period for the time of H. W. In Dec. and Jan., during strong S. and S.E. winds, the greatest rise or fall on the springs was about 2 ft.; but in the hot months, during the N. winds, when many of the banks are dry, there is less water by about 3 ft. than during the S. winds in the cold season.

DANGERS, WITH MARKS FOR AVOIDING THEM. The W. or Rocky Bank, is the outermost danger; its centre is 7 m. W. by S. from the great mosque. It is 2 m. in extent, N. and S., and E. and W. about 3 m. There are five rocky patches on it, namely, Al-Fokáni, Aboo-l-Yahood, and Aboo-l-Hodair; they are in a line, about E. by N., with channels from 9 to 17 fathoms between them. On the Al-Fokáni, the W. patch, there are 8 fathoms, on the centre one $2\frac{1}{2}$, and on the E. 6 fathoms. The other two patches are the Aboo Nukla and Al-Wastani, which lie to the S. of the other three nearly 1 m., leaving a good channel between, with from 13 to 35 fathoms. On the first are $2\frac{1}{2}$ fathoms; on the latter, $1\frac{1}{2}$ fathoms in the hot season.

Passages inwards. The mosque just open to the right of the Sugar Loaf, bearing E. by N., leads across the bank between the patches. The mosque just open to the N. of the N. brow of the Saddle, leads on to the three N. patches, but open to the S. of it, just clears them: or the Admiral's house on with the N. brow of the Saddle, bearing E., leads just clear to the N. of the bank.

Saddle Hill, bearing E. by N., or Sugar Loaf, E. by N. $\frac{1}{2}$ N., leads clear to S. of the bank.

Oomarrar Hill, bearing N.E. by N., or Moosmari Reef bearing S.W. by S., is the fair channel course to the E. of the bank, and to W. of the Maru-wiya.

Moosmari Reef, in lat. $21^{\circ} 21' N.$, lon. $39^{\circ} 0' E.$, is a danger, requiring great caution in vessels approaching Jiddah from the S. at night. It is a breaking reef, lying 6 m. to the W. of Ras-el-Aswad, and 6 m. to the S.S.W. of the Outer shoal patches abreast of this port. Vessels coming from the S. should not stand in for the harbour till the Sugar Loaf bears to the E. of E.N.E., or till Oomarrar Hill bears to the E. of N.E. by N. **Caution.** Navigators must be warned that this reef has been hitherto omitted from the large-scale plans of Jiddah harbour.

The **Maru-wiya-Reef** is a sunken patch of $1\frac{1}{2}$ and 2 fathoms, lying rather over 3 m. to N.W. by N. of Ras-el-Aswad, and at $\frac{1}{2}$ m. to the N.W. of the largest of the breaking patches, called the Sha'bein; or it is upwards of $2\frac{1}{2}$ m. to the S.E. of Al-Wastani reef. The E. side of this line of reefs is connected by many sunken patches to the second cluster. The N. patch of this range is called the Ghaham or Jhaham Reef, and from it the mosque bears E. by N. $\frac{1}{2}$ N., distant $4\frac{1}{2}$ m.

These S.W. Outer Reefs are all breaking patches. Naming them from S. to N., they are Sha'bein, Maru-wiya, As-Samadiya, Ohm-el-Kaad, Shab Jiddah, and Jhaham. There is a channel between the Maru-wiya $1\frac{1}{2}$ -fathom patch and the breaking Sha'bein reefs. When Oomarrar bears about N.N.E., steering for it (with a good look out from mast-head) will conduct between the patches and carry the vessel a little to the W. of the Outer Gateway, which is in the second cluster of reefs. The mark to clear **Jhaham reef**, the N. end of the first or outer line of reefs, was the E. Tower on with the Sugar Loaf, but the N. end is now marked by a **beacon**.

The centre cluster of reefs, in which is the Outer Gateway, is more extensive than the former, and is also in patches, with many channels between them. The Gateway, which is 270 yards broad, has now a **beacon** on each side, from which the flag-staff bears about E.N.E., distant 3 m. This Gateway is between the Fellaha breaking shoals, with dangerous sunken patches on the S. When in the centre of this entrance, a patch (now **buoyed**) will bear S.E., distant 300 yards, which, with the other sunken patches on the S. side, is to be avoided, by passing along about 100 yards from **Fellaha** large breaking reef.

North entrance. There is a channel between the N. extremity of this second cluster of reefs and the coast reef off Ras el Gabaiz, and from thence to the S. to the Inner Gateway.

South entrance. There is also a channel between the S. extremity of this second cluster of reefs, called Shab Mahmood, and the coast reef off Ras el Aswad, and thence to N., passing the long reefs, Shab Saif and Aboo Hareet, at 1 or 2 cables' distance, and up to the Inner Gateway. These two channels are constantly used by Arab baghalahs; the *Benares* has been through them both. The entrance through this S. channel is $\frac{1}{2}$ m. wide throughout; but there are overfalls in both. For the S. Channel, the N. brow of the Saddle, bearing E. by N. $\frac{1}{2}$ N., and on with a little sand-bank or islet, called Wasta, lying $2\frac{1}{2}$ m. to the N.E. of Ras-el-Aswad, leads in clear of the S. ends of the first and second clusters of reefs; and having rounded Shab Mahmood, steer N. by E. for the Inner Gateway.

The Outer Gateway. The leading mark for the Outer Gateway was the mosque on with the outer angle of the Flag-staff Tower. **Beacons** are now placed there.

Inner Gateway. The inner cluster of reefs, in which is the Inner Gateway, now marked by **beacons** and **buoys**, has channels for small boats towards its N. and S. ends, and in the centre of the reef is the Double Gateway, as it may be called, for it is formed by four shoals, the two outer most of which are breaking reefs; that on the S. is Abou Hareet, that on the N. is Bahree.

About 300 yards from them further in is Berry breaking reef, with a sunken patch off it on the N. side of the Gateway, and a sunken patch lies on the S. side, both of which may be seen by a good look out. This entrance is 250 yards wide, and the flag-staff bears from it a little to N. of E.N.E. It is the only entrance in the cluster for ships. When in the centre of the Inner Gateway there are two patches of 1 and 2 fathoms, in a line with the E. Tower, bearing E. by N. $\frac{1}{4}$ N.; the nearest is only 500 yards from the entrance, and is off the end of Berry, as already mentioned, and not more than 70 yards from it. The second is a rock of 1 fathom, $\frac{1}{2}$ m., or 1,000 yards off; it lies off the E. side of Berry, and the passage is between them, luffing round Berry reef to run up into the harbour; the distance between them is not above 400 yards. There is also a third small patch, bearing from the Gateway E.N.E., distant 1,200 yards; and a little to the N. of this is a shoal 500 yards long, with 1 fathom on it.

The flag-staff, a little open to N. of the Minaret, leads to the Inner Gateway. For clearing the Berry sunken patch, the flag-staff 20 yards, or half a ship's length open to the N. of the Minaret; or, the Minaret and the centre of the S. octagon in one; but the Minaret must not be brought on with the S. extreme of the octagon, as that is on with the shoal that forms the S. part of the Gateway.

Approaching and entering the Harbour. On approaching within 30 m. of Jiddah, the Saddle Hill will be seen, if the weather is clear; when its N. brow bears E. $\frac{1}{4}$ N. you will be off the harbour. In running up, get sight of the Moosmaree reef, but do not bring it to the W. of S. by W., until you are sure of the above bearing of the Saddle. When the Mosque is on with the Sugar Loaf, you may steer for them across the Rocky Bank between the shoals, which are easy to be seen. When clear of this bank the course will be about E. for 2 m., which will take you to the **Jhaham** breaking reef, and at 2 cables to N. of it the Outer Gateway bears E. $\frac{1}{4}$ S., distant $1\frac{1}{2}$ m. On approaching it, keep the Fellaha breaking reef on board, to clear the patches on the S. side of the channel, one of which bears E. $\frac{3}{4}$ S. from the entrance, distant only 300 yards. Therefore, after passing the S. point of Fellaha breaking reef, haul more to the N. to avoid them, but take care also to be clear of a sunken patch near the E. end of Fellaha breaking reef. A course N.E. by E. $\frac{1}{2}$ E., for 1 m., should carry a ship along the large breaking reef, and the sunken patch off its E. end, to the Inner Gateway. To avoid the patches within it, bear away to the E. the moment you are within the narrow outer part of the Gateway, and the course will be about E. by N. $\frac{1}{4}$ N., and bring the Flag-staff about 20 yards, or half a ship's length, open to the N. of the Minaret before you reach the nearest shoal (the Berry sunken patch), keeping it on your port hand, and a sunken patch will be on your starboard hand, which forms the S. side of the Channel of Berry. If the wind is at N.W., luff as close as you can with safety round the Berry sunken patch, close on the end of the Berry reef, as it is steep-to and easy to be seen, and keep along the edge of the Berry reef, to avoid the sunken rock 400 yards to the E. of it, and the other two patches which are near the shore reef on the E. side of the channel. But if the wind is S., the course up the harbour, after passing the Berry sunken patch, will be by compass about N.N.E., and ships may anchor with the Mosque from E. by N. to E. by S., in from $3\frac{1}{2}$ to 7 fathoms. The latter bearing of the Mosque is where native ships always lie, and is the most convenient for boats going to the shore; but it is just to the N. of the narrowest part of the harbour. There is a shoal spit, nearly dry at L.W., between this anchorage and the town of Jiddah.

To pass through the N. Turruck or Khor Zemir Channel. The following directions are added for passing inwards and to the N. of the second cluster of reefs, in case there should be a necessity for so doing; but there are alarming overfalls and patches in it, and a vessel would probably be longer in clearing the reefs by going that way than by going through the second Gateway. Run in with Mosque bearing E.S.E., or with **Jebel Widri** (a black, conical hill, to the left of Ten-nam Peak) on with the Admiral's house. Either of these marks will carry her in between **Gad-Ohm-el-Halal** and **Derkak Reefs** on the S., and **Ras el Mugulat Reef**, which stretches off Ras el-Gahais on the N. Having passed through these, haul a little to the S., about S.E., which will carry her through the Gateway formed by **Gad-el-Khor-Zemir** and **Toweelah** reef towards **Abou Humroon** shoal; and when midway between the latter two, haul up about S. by E., and keep a good look-out for a shoal-patch, which should then be about half a point on the starboard bow, and which bears about W. from the great Mosque. Having passed this patch, steer onwards about S. by E. for the Inner Gateway, and proceed in from thence, as already directed in coming from the S.

Pilots. When off the Harbour of Jiddah, if in want of a pilot, make the signal with one or more guns, as necessary, and they will come out. In running in they are mostly guided by the eye; for the channels are so narrow that the marks will be found of little use, except in approaching the place; and towards noon is the best time for going in, as, owing to the transparency of the water, the sunken rocks then appear as a dark green shadow on the surface, but which rocks cannot be discovered until close upon or close to them, when the sun is low to the E., and there is much glare, or in thick, hazy, or cloudy weather.

COAST OF ARABIA, FROM JIDDAH TO GULF OF AHKABA.

From Ras Gahaiz the coast runs to N., about 11 m. to **Sherm Oubhoor**, which runs in N.E. 5 m. At 4 m. N. of the Ras the coast-reef ceases, and the shore is bold, there being no bottom at 70 fathoms, within 1 m. From Sherm Oubhoor the coast turns to N.W., and N.N.W., 14 m. to **Ras Dahlimar**, and thence N. $\frac{1}{2}$ W. 6 m. to **Ras Hartebah**, in lat. $22^{\circ} 0' N.$ and lon. $38^{\circ} 54' E.$

THE ELIZA SHOALS. Bearing N.N.W. 9 m. from Ras Gahaiz, is the S.E. point of the Eliza Shoals, from whence the inner or E. edge trends about N.N.W. and N.W. by N. about 21 m. to abreast of Ras Hartebah, forming the W. side of a deep channel, of 2 to 3 m. wide, between it and the coast. From 5 to 6 m., about W.S.W. from Ras Hartebah, and on the inner edge of these shoals, is a large patch of reefs and deep water, called **Guttah Degaiz**.

The S.W. point of this extensive bank, called Eliza Shoals, is in lat. $21^{\circ} 37' N.$, lon. $38^{\circ} 51' E.$, and is about 10 m. W.S.W. from their S.E. point and bearing W.N.W. 15 m. from Ras Gahaiz. About 3 m. N.W. from this S.W. point, and on the W. edge, is a reef about 3 m. in length, in the same direction, called **Shab ul Kebeer**, with no bottom, at 70 fathoms close to its W. side. All the S.W. part of these shoals have breaking rocky reefs, with deep water close to them. Reefs and shallow patches extend also to the N. by W. for 8 or 9 m. from Shab ul Kebeer. About N.W. by N., 11 or 12 m. from it, and also on the edge of the bank, is another reef, in a N. and S. direction, called **Aboo Farhramish**, near which is good anchorage, in lat. about $21^{\circ} 52' N.$; but only a Pilot could take a ship there. From hence the W. edge of the Eliza Shoal takes a N. direction, to its N.W. point, where there is a reef called **Aboo Murdafer**, where there is good anchorage, sheltered from N.W. winds. This is the N. Eliza Reef; its W. end is in lat. $22^{\circ} 2' N.$, and lon. $38^{\circ} 42' E.$, from whence it extends 3 or 4 m. in an E.N.E. direction, in a narrow line.

A ship from the N., if a good look-out be kept, may with safety take advantage of the Inner Channel already mentioned, between the Eliza Reefs and the low, sandy coast, fronting them, it being from 2 to 3 m. wide, with no bottom at 60 and 70 fathoms, and both sides bold-to. Should night come on before a ship is through this channel, she may haul a little to the W., and anchor as most convenient under the lee of any of the reefs, keeping in mind that the range of reefs which form the W. side of this channel, where anchorage may be had, terminate in lat. $21^{\circ} 46' N.$, when two remarkable hills with peaks on them, called the Sisters, which form the most N. high land near the coast, bear about E. or E. by S. To the S. of this at 6 m., are only a few patches, which do not afford good anchorage from N.W. winds. The N. entrance to this channel lies close to the W. end of the N. Eliza Reefs, **Aboo Murdafer**. A course about E. by S. for 6 m., and then for Ras Dahlimar when it bears about S.E., with soundings from 20 to 40 fathoms, will lead into the channel; when you have no soundings, a course may be steered to S.E. by S., close along shore, to the reefs of Jiddah.

In passing close along the coast, the inlet, called in the old charts Charles River, but by the Arabs, Sherm Oubhoor, will be observed, which is an extensive inlet of the sea. The entrance is narrow, and so it continues some distance up, with soundings from 18 to 25 fathoms in it, and then widens into some beautiful bays; but it would not be prudent to anchor here, it being difficult to quit with a light land wind, if there is any swell at the entrance, which is generally the case after hard N.W. winds. In other respects, vessels may lie quite land-locked inside, with scarcely space to swing, except in the upper part, which is distant from Jiddah Mosque 14 m.

The Coast from Ras Hartebah trends to the N.E. and N.N.E. 21 m. to **Ras Mahluk**, a low sandy point, forming between them various Mirzas of considerable extent, but difficult to approach, on account of the numerous reefs and shoals with which all this part of the coast is bordered, extending from 6 to 8 m. from shore; there are, however, some channels among them. A channel lies close to the W. side of **Heyga**, a low sandy island, which is 3 m. N. by E. of Ras Hartebah, and it leads out again into a large channel 5 m. to the N. of **Haramil**, which is a similar low island, where these reefs terminate, at 9 m. to the W. of Ras Mahluk. Haramil Island is low and sandy, and covered with bushes, in lat. $22^{\circ} 15' N.$, lon. $38^{\circ} 56\frac{1}{2}' E.$ About 5 m. N. by W. from Ras Mahluk, is **Ras-ul-Khoormah**, also low and sandy, forming on its S. side a bight in the coast full of shoals; and about 3 m. to the N. of it, the coast-reef which began at Ras Dahlimar terminates.

From Ras-ul-Khoormah about 12 m. to the N. is **Merza Deneb**, where good anchorage may be had in 7 to 10 fathoms. From hence the coast takes a N.W. by N. direction, and at the distance of 8 m. is **Sherm Rhabuc**. All this part of the coast is a low sandy desert.

Shab Nazer Reef, the S. end, in lat. $22^{\circ} 19' N.$, lon. $38^{\circ} 50' E.$, bears N.N.E. from the W. end of the N. Eliza Reef, at the distance of 19 m., and N.W. by W. from Haramil Island 8 m. On the N.E. side of Sháb Nazer, there is indifferent anchorage. From this reef, to the N.N.E., to the distance of 23 m., numerous reefs exist on a bank or plateau of soundings, with passages and anchorages among them: their W. edge preserves nearly a straight line, and there is no bottom at 40 or 50 fathoms outside them. This plateau of reefs is from 2 to 5 m. broad, and a little to the W. of their N. end, in lat. $22^{\circ} 38' N.$, and lon. $38^{\circ} 51' E.$ lies a large reef called **Aboo Sahain**, under which there is good anchorage from N.W. winds. The S.E. part of this bank of reefs is about 2 m. from the N.W. part of the reefs off Ras Mahluk. Off Ras ul-Khoormah the channel is 5 m. wide, decreasing again to $1\frac{1}{2}$ m., as Sherm Rhabuc is approached. There is a rocky shoal about mid-channel off Ras-ul-Koormah, but in all other parts no bottom at 40 and 50 fathoms.

Shoal. There is also a rocky patch about 2 m. to the S.E. of Sháb Nazer.

SHERM RHABUC, in lat. $22^{\circ} 42' N.$, and lon. $38^{\circ} 58\frac{1}{2}' E.$, is a capacious inlet, affording excellent anchorage inside its entrance in 8 to 12 fathoms, perfectly sheltered from all winds, and easy of ingress and egress when N.W. winds are blowing. This is a sacred spot to Mussalman pilgrims, who here disrobe and put on the white garb of pilgrims. At this point of Rhabuc, wood, water, and other supplies may be obtained at a cheap rate, but the Bedouin Arabs are not to be implicitly trusted. An extensive date grove and several villages are situated about 5 m. inland. In the interior of the country there is a range of mountains, of which the most conspicuous and nearest is a double bluff hill with precipitous sides, called **Jebel Rahab**: it is in lat. $22^{\circ} 32\frac{1}{2}' N.$, and lon. $39^{\circ} 23\frac{1}{2}' E.$

Shab-el-Abyad, or Abbeat Reef, (the E. end) bears W. from Sherm Rhabuc about 10 m.; it is a large reef about 3 m. in extent N.W. and S.E., with no bottom at 30 and 40 fathoms near it. At 9 m. W.N.W. from the N.W. end of this reef, are four small shoals lying close together, called **Shab Comsah**; they are in lat. $22^{\circ} 47' N.$, and lon. $38^{\circ} 35' E.$, and there is no bottom at 40 fathoms close to the E. of them. At 3 m. E. by N. from them is a rocky patch, equally steep-to.

The Coast from Sherm Rhabuc goes 15 m. N.W. by N. to **Sherm-ul-Kurrar**, and here again begins the coast-reef; and 8 m. further N.N.W. is a low sandy point called Ras Mustoorah. Ras Delaidelah is about 5 m. from Ras Mustoorah in the same direction, the coast between forming a bight, in which is an island on a reef, and many rocky patches; there is also a bight full of rocks to the N. of this Ras. From Ras Delaidelah 14 m. N.N.W. is Ras-ul-Kheehum, and 13 m. further in the same direction is a low sandy point called Ras Abbiat, the coast throughout the whole extent bordered by a coral reef, with shoal water and rocky patches, running off from 4 to 7 m. from shore, and no bottom at 30 fathoms close outside.

Khurrrar Reefs. At 16 m. to the N. from Shab Comsah lies a small reef, in lat. $23^{\circ} 2\frac{1}{2}' N.$, on the W. side of a bank of soundings of 15 to 25 fathoms; this is the outer reef of a large cluster called **Guttah-ul-Khurrrar**, the nearest part of which lies about 1 league off the coast at Sherm-ul-Khurrrar. There are passages and anchorages among these reefs, also a safe channel near the shore, with no bottom at 30 and 40 fathoms. The outer boundary of the Khurrrar Reefs lies 9 to 11 m. from the main land, which is low near the sea; they extend from lat. $22^{\circ} 48'$ to lat. $23^{\circ} 5\frac{1}{2}' N.$; their S. extreme lies 6 m. to E. by N. of Shab Comsah.

Sherm Barickhah, or Baraikah, lying about 5 m. N.N.W. from Ras Abbiat, is a small inlet, running nearly 3 m. inland E.N.E., at the head of which are the ruins of a fortified town. Here is good anchorage for small vessels, and stock is procurable, but the natives are not to be trusted; in fact, the whole tract of coast from Ras Hartebah to this place is inhabited by the Hurrah Bedouins, a tribe whose character is proverbial throughout the Red Sea for ferocity and treachery, so that it is dangerous to land upon it. N.W. 38 m. from Sherm Barickhah is the entrance to Yembo, the coast between heuding in a little, and bordered throughout with a coral reef. At the distance of 6 m. from the former is **Ras Attiah**, and 8 m. further **Ras Madges, (Mahjis)** to the S. of which is good anchorage, in a bight of the coast-reef.

Reefs. N. from the outer Khurrrar Reef are the numerous shore-reefs before mentioned; a N.N.W. line from the outer Khurrrar Reef leads from 3 to 6 m. to the W. of these reefs, to lat. $23^{\circ} 27' N.$, and lon. $38^{\circ} 23' E.$, in which situation there is a **small reef**, the S. one of a group extending 18 m. to the N., to lat. $23^{\circ} 45' N.$; they have soundings and indifferent anchorage among them, but no soundings on their outside. Their inner edge is from 2 to 3 m. off the coast-reef, and their N.W. extremity extends to lon. $38^{\circ} 15' E.$, fully 11 m. W. by S. from Ras Attiah. About 3 m. W.S.W. from Ras Abbiat is an isolated reef with 7 fathoms by it, and no bottom at 40 and

50 fathoms near to it; this lies midway from Ras Abbiat towards the S.E. side of the group of reefs just described. About 17 m. to the W. of Ras Abbiat, in lat. $23^{\circ} 30' N.$, and lon. $38^{\circ} 13' E.$, is the S.E. end of a large reef called **Shab Sufiani**, extending thence 3 m. to N.N.W., having no bottom at 100 fathoms close to the S. Jebel Soubah bears from it E. by S. $\frac{3}{4}$ S., distant 46 m.

Jebel Soubah, in lat. $23^{\circ} 18' N.$, and lon. $39^{\circ} 3' E.$, is a remarkably high mountain near the sea, of 4,500 ft. elevation, and higher than any other hills between Jiddah and Yembo; it can be seen at the distance of 40 m. The upper part forms a convex line, with two small peaks near the centre. A range of very high land extends some distance to the N.N.E. of Soubah, and has several remarkable peaks on it; but these are seldom seen far at sea, unless the atmosphere is very clear.

Thetis Reef lies about N.W. by W. 13 m. from Shab Sufiani, and 27 m. to the S. of Yembo. The Thetis Reef, in lat. $23^{\circ} 38' N.$, and lon. $38^{\circ} 2' E.$, is a small and dangerous reef, having no bottom at 120 fathoms very near to it. This Reef was discovered in the Indian Navy's cruiser *Thetis*, in 1829. About 7 m. N. by W. from the Thetis Reef is the S.E. of a cluster of shoals called **Shab Subah**, or the Seven Reefs, in lat. $23^{\circ} 45' N.$; they thence extend about 9 m. N.W. by N. to lat. $23^{\circ} 53' N.$, and are about 2 m. wide, their W. boundary being in lon. $37^{\circ} 53' E.$ These are the most dangerous reefs on this part of the coast, as they lie so far from the land, and there is no bottom at 100 fathoms at a short distance to the W. of them. Besides these there are several reefs and rocky patches lying from 5 to 9 m. off shore, between Ras Mahjis and Yembo, with deep water between them. The outermost of these is in lat. $23^{\circ} 50' N.$, lon. $38^{\circ} 8' E.$ The N. one, called **Guprear** (Gabriya,) is in lat. $24^{\circ} 2' N.$, lon. $37^{\circ} 57' E.$, and bears from Yembo entrance S.W. by W. $5\frac{1}{2}$ m.: there is good anchorage in N.W. winds at this reef. Four miles to the W. of Guprear is another small reef, and at W.N.W. $6\frac{1}{2}$ m. from Guprear, there is another reef with 7 fathoms near, and no bottom at 70 fathoms to the E. of it. Another small reef lies S. by W. about 3 m. from Yembo. These are the only dangers in approaching Yembo, and they are easily avoided; by a good look-out a vessel may stand close to them without fear.

YEMBO, the Port of Medina, is governed by a Turkish Effendi, and garrisoned by a few troops from Egypt. It is situate on a low sandy shore, and on the N. side of a capacious inlet of the sea. The entrance of the harbour lies in lat. $24^{\circ} 4' 30'' N.$, and lon. $38^{\circ} 2' E.$ The high houses and mosques can be seen 13 m. distant, and the approach to it is not dangerous; there are no soundings close to the entrance, which is 300 yards across, and a vessel can only enter with a fair wind. A patch of rocks bounds the S. side of the entrance, and extends a little distance to the N.W., on which the N.W. swell breaks very heavily, making the harbour difficult to quit when N.W. winds have been blowing; and the land-wind in the morning is scarcely sufficient to carry a vessel out against the swell. This endangers a vessel being drifted on the rocks, should the land-wind fail, and the boats be unable to tow the vessel against the swell. This was the case with the Indian Navy surveying brig *Palinurus*, and she narrowly escaped being wrecked. After entering the inlet it widens considerably, and forms a capacious harbour, with 4 to 6 fathoms in it. Yembo affords a good and cheap supply of excellent fresh water, which is kept in covered or vaulted tanks in and near the town; its price about 300 gallons for one dollar. Wood is scarce; sheep in abundance, at $1\frac{1}{2}$ dollars each; a few bullocks, fowls, fruit, and vegetables are to be obtained.

There is a conspicuous white tomb in the low sandy point forming the N. side of the harbour, and there is a small sandy island, covered with bushes, having a sheik's tomb near its E. end, on the broad bank of the reef forming the S. side. There is a remarkable range of high table-mountains to the N.E. of Yembo, called the **Radhwah Mountains**, which are by measurement 6,000 ft. high; the N.W. brow bears from Yembo N.N.E., distant 31 m.; the S.E. brow N.E. by N., $31\frac{1}{2}$ m.

The Sugar Loaf and Scragged hill, inland of Cape Bareedy, are the best land-marks.

Sherm Yembo, a capacious harbour and inlet of the sea, situated 8 m. to the N.W. from the port of Yembo; the entrance lies in lat. $24^{\circ} 9' N.$, and lon. $37^{\circ} 55' E.$ It is a safe and commodious harbour, being easy of ingress and egress for the largest ship. The soundings are from 20 fathoms at its entrance, decreasing to 10 and 8 fathoms a little way in, from whence it branches off in several arms, the N. one to the distance of 5 m. inland. The coast about Sherm Yembo is a low, sandy shore, and clear of dangers; but a reef (mentioned as lying $6\frac{1}{2}$ m. to W.N.W. from Guprear) bears S.S.W. $\frac{1}{2}$ W., distant $5\frac{1}{2}$ m. from the mouth of Sherm Yembo. The coast has a very narrow fringing reef, close to which there are deep soundings till near **Cape Bareedy**; off which, distant 8 m. to S.E., are several reefs, with anchorages and passages between them. Soundings from 13 to 25 fathoms extend to the S.E. of these reefs; the land opposite forms a deep bay. There are no soundings any distance to the W. of the reef off Bareedy, and none at Cape Bareedy, 100 yards from the narrow reef bounding the shore.

CAPE BAREEDY is a moderately elevated promontory, forming a convex curve to the W., about 7 m. in breadth. Several points form on this Cape, all having different names by the natives;

therefore we take the centre and most S. part of this promontory for Cape Bareedy, which lies in lat. $24^{\circ} 16' N.$ and lon. $37^{\circ} 32' E.$ The face of the shore is bounded by steep cliffs, and there are no soundings close to them. The dangers to the S.E. project for 7 or 8 m., as before described; there are none to the S.W. or W. Inland to the N. and N.E. of Cape Bareedy there is a remarkable range of broken hills, of moderate elevation; the N.W. one, called Sugar-loaf, bears from Bareedy N. $\frac{1}{4}$ E., distant 17 m.: the S.E. one, called Scragged Hill, bears from Bareedy about N.E. by N., distant $16\frac{1}{2}$ m.: these are very conspicuous hills when nearing the coast, and are seen under the high land to the N.E. of them, which range of mountains extends from Yembo towards Hasáni Island. In the centre of this high land is one more elevated and conspicuous than the rest, called Round Mountain; it is in lat. $24^{\circ} 43' N.$ and lon. $37^{\circ} 55' E.$; the N. part of the high land is nearly abreast of Hasáni Island.

Shab Groosh, or Shark Reef, is the first danger to the N. of Cape Bareedy; it is a small reef, bearing from Bareedy about N.W. by W., distant 13 m.; it lies 4 m. from the coast, and is the S. one of a group which extends 4 or 5 m. to the W. from the prominent point at 8 m. to the N.W. of Cape Bareedy; among this group there is indifferent anchorage. To the W.N.W. of Shab Groosh, and distant about $13\frac{1}{2}$ m., lie the **Palinurus Reefs**, called by the natives **Shab Shaybah**; these are a group of small reefs, of 4 or 5 m. in extent, having no soundings or anchorages near them. Being the outer reefs, and situated 14 or 15 m. from land, they are dangerous for a ship to approach in the night. The centre and W. one lies in lat. $24^{\circ} 26\frac{1}{2}' N.$, and lon. $37^{\circ} 6' E.$; from this the N. reef bears N. by W. $2\frac{1}{2}$ m., the S. one S.S.E. 3 m. On the S. end of the large reef, which lies to the E. 4 m., there is a rock above water, about the size of a ship's capstan. A good mark for these reefs is Scragged Hill on with the N. brow of the Radhwah Mountains. Bearing N. from the centre of the Palinurus Reefs, to the distance of $9\frac{1}{2}$ and $12\frac{1}{2}$ m., in lat. $24^{\circ} 38' N.$, are four small shoals, with sunken rocks close about them: there are no soundings to the W. of these reefs.

Aboo Matari Reefs. In lat. $24^{\circ} 44' N.$ and lon. $37^{\circ} 4' E.$ is the centre of a group of large and small reefs, extending 5 m. to the N.W. and S.E., on a bank of sunken rocks and soundings, about $1\frac{1}{2}$ m. broad; indifferent anchorage for a small vessel may be found under these reefs; they are named by the Arabs Aboomutárah, and lie 4 m. W. from the shore, off a point called Ras Mahar: there are no soundings to the W. of these reefs. To the S. of them, and separated by a channel about 2 m. wide, there is a cluster of reefs extending over an area of nearly 1 square league.

Sherm Mahar is a good anchorage, in a bay on the coast, E. by S. 6 m. from the S. end of Aboomutárah Reefs; this place is capable of affording shelter to any ship from N.W. winds; you anchor in 7 fathoms, sand. Moderately elevated table-hills approach close to the sea, a remarkable gap in them forming a deep valley, points out the anchorage, which lies in lat. $24^{\circ} 41' N.$, and lon. $37^{\circ} 16' E.$ Sheep are to be obtained from the Bedouins, but water is scarce. There is another anchorage on the coast, 4 m. to the S.E., called Sherm Hussay, but it is indifferent on account of its being so contracted, the depth of water great, and bottom foul.

Shab Mombarak is a small shoal, with anchorage on its S.E. side; it lies N. by W. distant 4 m. from the centre of the Aboomutárah Reefs; this is the outer danger, till approaching Hasáni Island, which lies N. from this, distant 12 m.

HASÁNI ISLAND, the centre or high part of which is in lat. $24^{\circ} 58' N.$, and lon. $37^{\circ} 4' E.$, is 4 m. in length, N.W. and S.E., and about 2 m. broad; the Island is 700 ft. high at the centre and N. end, but slopes gradually down to a low point on its S., and it can be seen from the deck of a ship 25 m. in clear weather. It lies 10 m. from the coast, which here forms a deep bay to the E., in which are several reefs and two small islands. Ras Aboo-Mood, a low, sandy, but very projecting point of the coast, lies 7 m. to the S.S.E. of Hasáni. There is spacious anchorage near the S.E. part of the Island, in 10 or 15 fathoms; but care must be observed not to haul too close round the S.W. side, as there is an extensive reef and sunken rocks, running off from the S.W. point to the S.E., to the distance of $1\frac{1}{2}$ m. The best anchorage is round the S.E. point, close to a large Arab village, which is inhabited some months in the year by people from the main land. The anchorage abreast the village affords shelter from all winds. A scanty supply of sheep, wood, and water can be obtained from the natives, who bring it from the main, which is here rich in pastures and dates; but caution ought to be observed in transactions with the natives.

Small reefs. Bearing about S.W. by W., distant $6\frac{1}{2}$ m. from the centre of Hasáni Island, is a small reef, having no soundings near it. Another small reef lies off at 6 m. due W. from the N. point of Hasáni; these are the outer reefs from the island; others lie to the E., between the latter reef and the island, where anchorage may be had.

Libnah, a small rocky island of 300 ft. elevation, stands $\frac{1}{2}$ m. distant from the N.W. end of Hasáni, having a channel between it and the latter, only to be used by boats. To the N.W. of

Hasáni, distant 4 m., a long reef is connected with the N. end of the Island. This extensive reef reaches in broken patches, rocks, and sand-banks, to the distance of 15 m. to the N.N.E., having narrow and dangerous channels between them.

Mushabih Reefs. A line, about N.W. $\frac{3}{4}$ N., from the centre of Hasáni to lat. $25^{\circ} 23\frac{1}{2}'$ N., reaches the S. end of the reef, which extends 14 m. to the S.E. of the low coral island of Mushabih; this line just touches the W. boundary of other reefs, consisting of several small but dangerous reefs, situated between Hasáni and the long reef off Mushabih. Inside of these reefs a ship ought on no account to venture: they have no soundings near them, and lie 15 m. from the coast, which, in this part, is pointed by numerous coral islands and reefs. In lat. $25^{\circ} 24'$ N. and lon. $36^{\circ} 39'$ E., is the S. end of the extensive reef connected with Mushabih Island: it lies S.E. by S., distant 14 m. from the S. point of the island, forming a concave curve to the E.: there are no dangers or soundings to the W. of the reef.

Shaybarah Island, which bears E., 9 m. from the point of this reef, is a low, sandy, and coral island, having numerous bushes on it: the length of it from N.W. to S.E. is about 6 m. and 3 m. broad. Between this island and the S. point of the reef just mentioned is a broad channel, which leads into a gap among the inner reefs: from thence among the reefs to the N. This channel is used by all the native boats, but is much too narrow and dangerous for a ship, although the surveying brig *Palinurus* passed through it twice. There is good anchorage throughout this channel. **Woghadi Island** stands 1 league to the S.E. of Shaybarah, and there is good anchorage to the E. of it in 7 to 10 fathoms, protected from N.W. winds; this anchorage is 6 m. off the main land.

MUSHABIH ISLAND (the N.W. end, in lat. $25^{\circ} 40'$ N., and lon. $36^{\circ} 27'$ E.), is a low and level coral island, from 18 to 20 ft. high, $4\frac{1}{2}$ m. in length, N.W. and S.E., and $1\frac{1}{2}$ m. broad; its W. side is quite steep, with coral cliffs, having no soundings at 120 fathoms, close to the cliffs: there are no dangers to the W. of it. The reef extending off the S. end has a gap in it, distant about 2 m. from the island. In this gap of the reef a vessel may anchor, but the bottom is very foul. Mushabih stands out towards the centre of the sea, about 16 m. from the line of coast; and 51 m. to the N.E. of the Light on Dædalus shoal.

Sheikh Murbut, in lat. $25^{\circ} 53\frac{1}{2}'$ N., a low, coral island, with excellent anchorage close to the S. of it, is the N. isle of this group; it contains the remains of a Mussulman saint of that name, deposited in a now ruinous tomb. This island or anchorage is safe to approach: a bank of soundings, from 50 to 30 fathoms, extends to the W. of it 5 or 6 m., as well as 12 and 13 m. to the N.N.W., joining the rocky or broken-cliff island of Murdoonah.

Cape Ghurkoomah (Ras Kurkoomah) is the nearest point of the main land, situated 4 or 5 m. E. by S. from Sheikh Murbut; it is 400 ft. high, and the Cape gradually rises in the centre. To the N. of Sheikh Murbut and Kurkoomah, a deep bay extends to the N. for 11 m. to the little bay of **Sherm Manaiboora**; in the centre of this deep bay there is a large reef, and soundings all about it from 25 to 10 fathoms.

Murdoonah Island is about 150 or 200 ft. high, in broken coral cliffs; it is about $\frac{3}{4}$ m. long. N.N.W. and S.S.E., in some places only 100 or 50 ft. wide; it lies in lat. $26^{\circ} 4'$ N., and lon. $36^{\circ} 27\frac{1}{2}'$ E., or about 24 m. due N. from Mushabih. A bank of sandy soundings extends to the S.S.W. of the island, 7 m., but not far to the W. Anchorage close to a reef off its S. end affords shelter from N.W. winds; but better anchorage is obtained by proceeding to the main land, which lies 5 m. to the E., forming a point; close to the N. of which is **Sherm Abban**, a fine bay and good anchorage. The land from this point runs to the E., 4 or 5 m., and affords good shelter and anchorage from N.W. winds; the soundings are from 30 to 15 fathoms near the shore, which is low and sandy; the beach in some parts is pointed by low coral cliffs. Excellent water and sheep in plenty, also fire wood, may be obtained at Sherms Abban and Manaiboora; the Bedouin Arabs supply the articles at a cheap rate; water at about 200 gallons for a dollar; sheep are one and one and a half dollars each. There is a safe passage between Murdoonah Island and the main, which leads up to the port and harbour of Wedgi, or El-Weijh. N.W. from Murdoonah, distant 9 m., is the island of **Riackah (Raikah)**; this island rises gradually from its S. end to about 50 ft., in the middle and N. end. An extensive reef and patches extend to the S., to within 2 m. of Murdoonah Island. There are no dangers to the N.W. of Riackah Island, which is safe to approach, should a ship wish to get into the port of Wejh.

SHERM WEDGI, or the port of El-Wejh, is a small bay on the coast, capable of affording good anchorage in $3\frac{1}{2}$ to 6 fathoms, for a small or middle-sized ship: the bay forms three sides of a square; the entrance 250 yards broad. A ship ought to anchor close inside the N. point, as the water is shoaler a little way up the bay: she will then be just clear of the N.W. swell, which rolls across the entrance; the ground is stiff clay. This place is easy of ingress and egress, and no dangers lie out to seaward: the island of Riackah lying to the W.S.W. $5\frac{1}{2}$ m., may be boldly ap-

proached along its N. side, and it will lead a ship into Wedgi. The coast about Wedgi is coral cliffs, about 50 to 70 ft. high; the port is not easily distinguished till close to it. It lies in lat. $26^{\circ} 13' N.$, and lon. $36^{\circ} 26' E.$ Wedgi affords a good and cheap supply of excellent water, obtained from the Bedouins, who charge one-twentieth part of a dollar for two skins, containing about 5 gallons each skin, or about 200 gallons per dollar. They can supply 2,000 gallons a day, brought from some wells distant 6 m. inland, where there is a Turkish garrison of twenty five men, in a small fort used as a depôt for grain, required by the caravans going to Mecca. Sheep may be obtained at one or one and a half dollars a head. Should a large ship require water at Wedgi, and not like the anchorage, she may anchor to the S. of the reef extending or connected with the S. end of Riackah Island, distant 4 or 5 m. from Wedgi, at which place boats can be procured to bring water. The Arabs at Wedgi are civil, and were under the chief of the Billy tribe, named Sheikh Amarah; the Sheikh generally resides near Wedgi, and expects a small present. A number of fishermen also reside here, belonging to that extraordinary race, the Hootaimy, so well described in Lieutenant Welsted's narrative of these seas, who are half Bedouin, half fishermen, and found in small parties all over the Red Sea. To the N. of Wedgi, distant $20\frac{1}{2}$ m., or in lat. $26^{\circ} 34' N.$, and lon. $36^{\circ} 27' E.$, is a conspicuous mountain, called **Jebel Antar**, or **Jebel Leban**, having on its centre two small peaks, whose summits are 3,733 ft. above the level of the sea. This mountain is 8 m. from the sea coast, and can be easily and frequently distinguished at sea.

Riackah, or Raikah, Island, the centre of which lies in lat. $26^{\circ} 10' N.$ and lon. $36^{\circ} 20' E.$, is W.S.W., $5\frac{1}{2}$ m. from Wedgi. A line drawn from this, N.W. by N., to lat. $26^{\circ} 57' N.$, clears the W. or outer boundary of several patches of reefs, lying in groups, and extending from 5 to 8 m. from the main land, with channels and anchorages among them. No vessel ought to venture inside this imaginary line, which runs close to the reefs, unless she may require to anchor, which few navigators, not accustomed to anchor among reefs and sunken rocks, would be bold enough to do, unless they had a native pilot on board. The coast, 11 m. to the N.W. of Wedgi, is clear of reefs. Two small, low, sandy islands, covered with bushes, lie on some of the reefs to the W.; the S. one, **Ahwhendear Island (Uwaindiya)** is in lat. $26^{\circ} 36' N.$, and lon. $36^{\circ} 6' E.$; the N. one, **Naboogier Island (Nabagiya)** in lat. $26^{\circ} 43\frac{1}{2}' N.$, and lon. $36^{\circ} 1' E.$ The N. shoal of the group (**Shab Masahwig**) lies, as mentioned before, in lat. $26^{\circ} 57' N.$, lon. $35^{\circ} 46' E.$, and due S. 8 m. from the S. end of Namahn Island. Between this shoal and the island the coast is clear, and soundings extend a mile off shore, where a ship in moderate weather may anchor. From Wedgi to Namahn Island the coast has several small indentations, and a number of low hills extend close down to the coral cliffs which line the shore. There are two small bays, called **Sherm Antar** and **Sherm Demerah**, to the E. and E.N.E. of Ahwhendear Island, distant $6\frac{1}{2}$ m. **Sherm Demerah**, the N. one, is the best anchorage. At Mersa Zebaida, about 14 m. to E.S.E. of Shab Masahwig, there is good shelter, but the water is rather deep for anchoring; fire-wood is plentiful. The channel to it is along the N. side of the Shab Masahwig.

NAMAHN ISLAND is $3\frac{1}{2}$ m. long, N.N.W. and S.S.E., and 1 m. broad; it is low and sandy at the N. end, rising gradually to the S. end to about 400 ft. in broken and abrupt lime-stone cliffs and hills. The S. end lies in lat. $27^{\circ} 4' N.$, and lon. $35^{\circ} 45' E.$, and is distant from Ras Aboo Musahrib on the main land about $1\frac{1}{2}$ m., forming a safe channel, and affording two safe anchorages, in 6 or 7 fathoms on the E. side of the island, in small bays; one to the N. and the other near its centre. Abreast the S. end of the island there is also anchorage near the main land, in 6 and 7 fathoms, under a low, woody point; the latter is most convenient for ships taking shelter from strong N.W. winds. A long reef joins and extends from the N.W. end of the island $4\frac{1}{2}$ m.; there are no soundings near it. The natives on the main land are civil, and bring sheep and water; but Europeans ought to be cautious not to go far inland.

Shoals and Channels. From the S. end of Namahn Island, a line drawn N.W. by N. to Ioubah Island (Yoobah), in lat. $27^{\circ} 45\frac{1}{2}' N.$, clears the outer boundary of the reefs off shore. The first group lies between lat. $27^{\circ} 15' N.$ and $27^{\circ} 18' N.$, and $1\frac{1}{2}$ m. to the E. of the above-named N.W. line, or at 4 m. to the S.W. of Sherm Jibbah; the second group lies between $27^{\circ} 25\frac{1}{2}' N.$ and $27^{\circ} 34' N.$, and from 2 to 5 m. E. of the line, or about one league off Ras Maharsh. The next group is about 6 m. in extent, N.W. and S.E., and very narrow, in which lie several low, coral islands, called the **Sillah Islands**; they are between the parallels of lat. $27^{\circ} 37' N.$ and $27^{\circ} 42' N.$, lying from 10 m. to 12 m. to the W. of Moilah. Between these shoals and also between them and the shore, the channels are clear; but a ship would do well not to go in-shore of them, as there is no bottom near the coast, and the reefs have no soundings close to their W. sides, though with light winds a vessel might anchor among them, with the exception of the Sillah Islands and Reefs.

Sherm Jibber, or Jibah, an inlet, in lat. $27^{\circ} 33' N.$, and lon. $35^{\circ} 32\frac{1}{2}' E.$, affords good anchorage, but the entrance is narrow. E. by S. $\frac{1}{4}$ S. from the fort of Moilah, is a remarkable sharp-pointed

hill, called Moilah High Peak, in lat. $27^{\circ} 37' N.$ and lon. $35^{\circ} 46' E.$, 6,330 ft. high (marked 9,000 ft. on the chart, which gives Moilah Sharp Peak, one league to the N.W., an elevation of 6,330 ft.); it has a very grotesque appearance, and is at the S.E. extreme of an immense range of high mountains, extending to the N. The mountains hereabouts approach nearer the sea than in general, and the land between them affords plenty of fire-wood, and grazing for sheep.

MOILAH, bearing N.N.W., 35 m. from Namahn Island, and E. about 12 m. from Sillah Islands, is a village and small fortress, which lies in lat. $27^{\circ} 40' N.$, and lon. $35^{\circ} 28' E.$; this is another station as a dépôt for grain for Mussulmen pilgrims. A small garrison of Turkish soldiers protects the place. A Bedouin chief being the nominal proprietor of this place, supplies are only to be obtained from him, and his men are not to be trusted. The place affords excellent water and sheep, but the anchorage is unfit either for ships or boats; besides, there are numerous dangers between it and the Sillah Islands. Should a vessel require water, supplies, or shelter, &c., she can run into an inlet called **Sherm Yarhour**, 4 m. to the S.E. of Moilah; though the entrance is narrow there is room enough inside, and it is beautifully sheltered; the approach to it from the W. is open between Sillah Islands and the second group of reefs before mentioned, and over a bank of soundings which has from 24 to 12 and 10 fathoms on it, with deep water between it and the main. At Yarhour the Bedouins bring fire-wood, water, and sheep, at a moderate price.

IOUBAH or YOOBAB ISLAND, the N. end in lat. $27^{\circ} 46' N.$, and lon. $35^{\circ} 7\frac{1}{2}' E.$, about 7 m. to the N.W. of the Sillah Islands, is $1\frac{1}{2}$ m. in length, N.W. and S.E., the N. end being a precipitous cliff 300 or 400 ft. high, sloping gradually to the S.E. end. There are no soundings or anchorage near this island. Two low, small, coral islands lie to the E. of Yoobah from 3 to 2 m.; a small reef also, 1 m. S.E. from the S. end of Ioubah; another N.N.W. $2\frac{1}{2}$ m. from the N. end of the island, having no soundings near them. To the N. of Yoobah about 17 m., the Arabian coast has a bay, called Ainoona or Eynounah, with the ruins of a town and aqueduct, but the entrance to the bay is so studded with reefs that only boats could enter. **Jebel Eynounah**, a mountain 6,090 ft. high (visible from the Gulf of Ahkaba), stands 14 m. to the N. by E. of the town. A lofty range, between 6,000 and 7,000 ft. high, stands between this and Moilah Peaks. The coast is fronted by numerous reefs, unfit for anchorage, bounding the coast; and to the S. of it lie in succession from the E. the islands of Burrahghan, Shooshooah, Senaffer, and Tirahn. **Shab Falham** is a reef, midway between Yoobah and Baraghán.

Baraghán, or Burrahghan, the S. end, in lat. $27^{\circ} 52' N.$, and lon. $35^{\circ} 3\frac{1}{2}' E.$, lies N.N.W., distant $6\frac{1}{2}$ m. from the N. end of Yoobah. It is $1\frac{1}{2}$ m. long, greatly indented, with small bays in broken coral cliffs or hills, about 100 ft. high. There is good anchorage on sandy bottom close to the S.E. end of the island, well sheltered from N.W. winds. Off the N.W. end there are some patches of sunken rocks, but the W. and S. sides are safe to approach. W. by N., 9 m. from Buraghán, lies the island of **Shooshooah**, a small island shaped like a quoin, being about 200 ft. high, forming a precipitous cliff on the S. face, close to which there are no soundings; but on the E. side of the island a small reef projects out, off which soundings extend a short distance, on which a vessel, upon an emergency, may anchor in 7 or 8 fathoms, on rocky and sandy ground. **Senaffer (Senafir)** is the next island to the W. This is rather a large island, of a semicircular form, having a fine khor or inlet on its S. side, in which there is excellent anchorage in 7 or 8 fathoms, sandy bottom; the anchorage is open to Southerly winds. Soundings of 15 and 25 fathoms extend to the S. of the island. Numerous broken peaked lime-stone hills cover the E. part of the island; the highest one, on its S.E. end, lies in lat. $27^{\circ} 54\frac{1}{2}' N.$, and lon. $34^{\circ} 48\frac{1}{2}' E.$

At 9 m. to the N.N.E. of the centre of Senafir, there is the narrow and shallow opening into one of those deep, natural harbours (*khor*), so numerous in the Red Sea, some of which may at no very remote day be gangways of Arabian commerce.

TIRAHN, the largest island in this part of the Sea, is 7 or 8 m. in extent; on its S. part, near the centre, is a high peak, about 700 ft. high, which lies in lat. $27^{\circ} 55' N.$, and lon. $34^{\circ} 34' E.$ The E. end of Tirahn, and the W. end of Senafir, are 2 m. distant; between which there is a passage; but there is a small shoal in the centre. Close off the S. and W. sides of Tirahn are no soundings. The W. side is distant from the peninsula of Sinai 4 m., but the passage into the sea of Akabah is only 1 m. broad, as the reefs from Tirahn extend nearly across to those off **Ras-el-Nasrani** on the main land, leaving a narrow and deep channel, with no bottom at 80 fathoms, called the **Strait of Tirahn**, through which the wind and swell come down with great violence.

Sherms Sheikh and El-Moyah. From Tirahn Peak, W. by S. $\frac{1}{4}$ S., distant 14 m., on the peninsula of Sinai, are two small bays, lying close together, affording indifferent anchorages for ships. The N. one, called **Sherm el Moyah**, from having a well of water (*moya*) near the beach, is the best anchorage. The entrance is narrow, and nearly blocked up with rocks, close to which, just at the entrance of the bay, a vessel may anchor in 6 or 7 fathoms in safety; and should it blow from the

S., she may warp into the bay, passing the rocks, when she will be completely land-locked, and in 6 or 7 fathoms. The water at the well is a little brackish, but would answer for stock or cooking. The other bay, called **Sherm Sheikh** (from having the tomb of a Sheikh on the beach), is more capacious, and entrance larger; but the water being so deep bottom cannot be found at 40 and 50 fathoms, till you are within 300 yards from the beach in the bay, when there are from 15 and 8 fathoms, sandy bottom. The coast outside these bays is a precipitous cliff, having no soundings near the shore. From these harbours the Bedouin Arabs of **Toor** are always on the look-out, eager and happy to convey letters or passengers from here to Suez or Cairo. They are civil and attentive, and may be freely trusted: in four days they take letters to Suez. Between these harbours and Ras Mohamed, distant 8 or 9 m. to the S.S.W., there is no anchorage on the coast; the hills come close to the sea, and present a grand range of mountains, extending to the N.N.E. and N.N.W., from 8,000 to 9,000 ft. high.

The **Strait of Tirahn** is not the only opening of the Gulf of Ahkaba. There is another between this island and Ras Furtak, through which steamers might conveniently pass into the Gulf, when the N.E. winds blow strong down it, causing a lee current through the Strait. To the N.E. of Ras Mohamed, off the Sherms Sheik and El Moyah, the flood tide sets to the N.E., and the ebb to S.W., influenced a great deal by prevailing winds. Here also the winds meet, when it is blowing hard from the N.N.W. out of the Gulf of Suez, and N.N.E. out of the Gulf of Akabah, coming in gusts, and changing in a few seconds, from both quarters. Still a vessel, with a little perseverance, can easily get to anchor, keeping well to windward, and then running along shore.

GULF, OR SEA, OF AKABAH, OR AHKABA.

This part of the Red Sea, so little known formerly, has now been found to afford no advantage for a sailing-ship: the advantages which might offer for steamers, in landing their packets at Akabah, are in a measure counteracted by the almost constant and violent Northerly winds which prevail here. These winds are increased in violence by a very high range of mountains bounding close both sides of the Sea, and opening like a funnel to the N. into Syria; from which cause the cooler atmosphere of the northern regions is drawn into this part with such violence, that it raises the sea into a deep and turbulent swell, so that no vessel could make way against it: the place also is void of soundings and anchorages, except one or two spots. No native vessels ever navigate this Sea; and such a dread have they of this place, that in crossing the Red Sea, near the Sea of Akabah, the Arabs always offer up a prayer for their safety. Numerous vessels have been lost hereabouts, and four attempts were made before the *Palinurus* succeeded in surveying it, having been blown away three different times: once while at anchor, having two bowers down, with 50 fathoms of chain on each.

The **Strait of Tirahn**. The entrance of the Sea of Akabah is nearly shut up by the island of Tirahn, and the extensive reefs connected with, and extending to, the E. and W. of this island, leaving one small channel to the W. of Tirahn, one mile broad, and no soundings at 80 fathoms in it, called the Strait of Tirahn; and one to the N.E. of the island, $\frac{1}{4}$ m. broad. This last is the best and safest channel, having anchorage throughout, which leads up to Ras Furtak, the E. point of entrance to the Sea of Akabah. The best passage inwards is along the E. and N. sides of Senafir island, then a N.W. course towards Furtak, passing about 1 m. off the sandy cape to S.E. of it. Under Ras Furtak point there is good anchorage, and here a vessel may remain till the winds allow her to proceed up the Gulf. At this point, between Ras Furtak and the Sinai coast, it is 7 m. broad, in lat. $28^{\circ} 6' N.$; the Sea then widens considerably, and the first anchorage is on the E. shore, in a snug cove, with a narrow entrance, between 6 and 7 m. from the Ras: this anchorage is called **Sherm Mujowah**. Five miles further, good anchorage will be found in **Sherm Dubher**. From this there is no anchorage on the E. side till at **Beer-al-Mashiya**, in lat. $28^{\circ} 51' N.$, which is about 10 m. N. of a bluff headland. A high mountain, called **Tybut Issum**, bounds the view on the E. side, when seen from the lower and upper part of the Gulf; from Mashiya it bears about E.S.E.

DAHAB, or MERSA DAHAB (*i.e.* the Golden Port), probably the **Eziongeber** mentioned in Scripture, is on the W. side, or peninsula of Sinai, in lat. $28^{\circ} 28' N.$, and lon. $34^{\circ} 33' E.$, and bearing N., distant 33 m. from the Peak on Tirahn Island, and nearly E. 29 m. direct from Mount Sinai. This point is formed by a sandy point, extending out from the line of coast nearly 2 m., on the outer extreme of which is a large date-grove: among the trees indifferent water is found in some wells. Near the date-trees is a small bay or anchorage, affording shelter enough for boats. It is named Minna; but the anchorage for ships is on the S. part of the cape, where the sandy point forms a horse shoe shape to the W. In this bay a vessel may anchor in 6 or 7 fathoms, perfectly sheltered from all winds. The date-grove at Dahab is inhabited during the fruit-season; but

the Toorwarree Arabs return before the winter months for pasture in the valleys of the immense mountains, in the dreary peninsula of Sinai. Jebel Aboo Reesh stands about one league to the N.W. of Dahab, and Jebel-el-Arabi is to the S.W. The Wadi Nusb is between them. The sandy points are all formed by the torrents, which at times wash out the sand from some of the larger valleys. The next anchorage is on the same side, about $7\frac{1}{2}$ m. to the N.N.E. of **Dahab**, under the lee of a sandy point, called **Ras Methna**, of which Ras Ahsir is the N. point.

Jebel Aboo Ma, in lat. $28^{\circ} 43' N.$, is a prominent, bluff cape, with very deep water off it, called Windy Cape by the surveyors, but there is no anchorage there. Nearly N. of this Cape, 7 m., is Warsut, a low, sandy point, in lat. $28^{\circ} 50' N.$; here is good anchorage from N. winds. To the E. from Warsut, on the opposite shore, distant 9 m., is an anchorage under a sandy point, called **Beer-al-Mashiya**, in lat. $28^{\circ} 51' N.$: a small patch of rocks surrounds this point, and extends a little to seaward, having deep soundings 1 m. off shore; there is good anchorage under this Cape in 5 or 6 fathoms, well protected from N. winds. **Noweeby**, or **El-Noweyba**, a low, sandy point, on the Sinai side, off a wadi, or valley, with a large grove of date-trees on it, is 7 m. to the N. of Warsut, and about 10 m. to the N.W. of Beer-al-Mashiya; it is in lat. $28^{\circ} 56\frac{1}{2}' N.$: this spot affords good shelter from N. winds, and indifferent water may be obtained among the date-trees, where there are some wells.

Aboo Rumlar, the N. point of a small bay, about 13 m. above Noweeby, on the same side; this is the next anchorage, and is sheltered from N. winds. It lies in lat. $29^{\circ} 8' N.$, and will be known by having a white patch or land-drift on the lower hills, $2\frac{1}{2}$ m. to the N.N.E. of the cape.

Between this cape, or white patch, and the island called **Jezirat Faroun**, or Pharaoh Island, near the head of the Sea, there are three different anchorages from N.E. winds on the Sinai side: the first is N. of White Cape, 2 m.; the next N. a little E., $7\frac{1}{2}$ m. from White Cape; the third N.N.E., about $11\frac{1}{2}$ m.; all in small bays. The distance from White Cape to the opposite shore is 9 m., where there is a small bay with an island in the centre of it, called **Omaider Island**. There is good anchorage between the island and the main, and sheep are here to be procured; but, like all other anchorages, excepting Dahab and Mujowah Cove, it is exposed to the Southerly winds, which sometimes, in the winter months, change suddenly, and blow violently for a day or a few hours.

Jezirat Faroun, or **Pharaoh Island**, about $\frac{1}{2}$ m. long, and 300 or 400 yards broad, lies in lat. $29^{\circ} 24\frac{1}{2}' N.$, and from the fort or village of Akabah bears W.S.W., distant about 8 m. The island of Faroun is a barren rock, surrounded by an old Saracenic castle, now in ruins. In this castle are the remains of capacious water-tanks, all out of repair; this fortification occupies the whole of the top of the island, and has once been a strong place: it is situated about 400 yards from the main land, between which and the island there is good anchorage in 10 fathoms, sand and rocks. The Arabs at Akabah will bring supplies to this place in five or six hours, but they are not to be trusted.

AKABAH, or **AHKABA**, is a small Arab village, in an extensive date-grove, nearly at the head of the Gulf, and on the E. shore; close to the village there is a small, square fort, garrisoned by twenty-five Turkish soldiers from Egypt; this is a depôt for grain, used by the caravans on their way to, and return from, Mecca. The fort is in lat. $29^{\circ} 28\frac{1}{2}' N.$, and lon. $35^{\circ} 1' E.$ Near the fort and adjacent country are numerous ruins, which we had not an opportunity of examining. From the fort of Akabah the head of this Sea forms a circular bay, 3 m. to the N. and N.N.W., and the same distance across; but abreast of Faroun Island it is nearly 7 m. broad. The coast at the head of the Sea is very low, being a sandy valley, called Wadi el Araba, bounded on each side by high mountains. At the head of the Sea there is good anchorage from Northerly winds, and fresh water may easily be obtained by digging a few feet close to the beach; in anchoring at this place, it must be recollected that Southerly winds bring up a heavy swell.

The Navigation of the Gulf of Suez, and of the Red Sea generally, together with the meaning of Arab words, are described at the end of Chapter VIII.

CHAPTER X.

ARABIAN COAST—RED SEA TO MASKAT.

ADEN—SHUGRA—HISN GHORAB—RAS REHMAT—MAKALLEH—KOSAIR—MISENAHT—PALINURUS SHOAL
—SIHOOT—CAPE FARTAK—MERBAT—KOOORIA MOORIA ISLANDS—RAS MADRAKA—GULF OF MASEERA
—GUBET HASHEESH—MASEERA ISLAND—RAS-EL-HADD—SOOR—MASKAT—WINDS AND WEATHER
—POPULATION—TRADE—NAVIGATION.

(VARIATION AT ADEN, $3\frac{1}{2}^{\circ}$ W.; AT MAKALLEH, $2\frac{1}{2}^{\circ}$ W.; AT KOOORIA MOORIA BAY, $1\frac{1}{2}^{\circ}$ W.; AT RAS-EL-HADD AND MASKAT, 1° W.)

Cape Bab-el-Mandeb, on the N.E. side of the entrance to the Red Sea, is a prominent headland, with low land behind it, giving it, when first seen from the offing, the appearance of an island. It has numerous rocky points forming small bays, some of which afford shelter for small vessels, and in which the boats from the opposite side land sheep for the Mocha market. Quoin Hill (Jebel Manhali,) which forms the high land of the cape, slopes towards the sea, and is about 865 ft. high; rendering it generally visible from a ship's deck at the distance of 35 m.; always having the appearance of a quoin. The rock composing this mountain was found by Captain Haines to be highly magnetic, causing his theodolite needle to vary 13° from the magnetic meridian. Inland to the N.E. about 15 m. is a range of hills called Jebel Hejáf, and immediately beyond them the longer range of Jebel Ahrah, known as the Chimney Peaks, from their irregular and peaked outline. These ranges run in a N.W. and S.E. direction, and are fronted towards the sea by low land. This low land not being discernible at a great distance, causes the inland mountains to be sometimes mistaken for Cape Bab-el-Mandeb. The S.E. end of this Ahrah range terminates in a barn-like mountain, with a peak in its centre, called Barn Peak. Between Ras Bab-el-Mandeb and Ras Ahrah, which is 9 leagues farther E., is a large bay, called **Gubet Heikah**, with low and sandy shores. The depths in the outer part of the bay are from 14 to 20 fathoms, decreasing towards the shore. A ship standing into this bay should not shoal her water to less than 10 fathoms by day, or 14 by night, in order to avoid the 3 and $3\frac{1}{2}$ -fathom knolls which are outside the reef, distant about a mile from the shore. Ships working into the straits during the strong N.W. winds of June and July, will find convenient shelter in this bay, under the E. side of Cape Bab-el-Mandeb; for, although gusts may come off the land, the water will remain smooth. The bank of soundings extends about 12 or 14 m. off this part of the coast. Water may be obtained here, from a well 2 m. to the E. of the Sekéya date-trees, which stand near the shore 6 m. E.N.E. of the E. point of Cape Bab-el-Mandeb. Fire-wood was found by Captain Haines in large quantities strewed along the beach.

Ras Ara, or Ahrah, in lat. $12^{\circ} 37\frac{1}{2}'$ N., lon. $43^{\circ} 53\frac{1}{2}'$ E., the extreme S. point of Arabia, is very low and sandy, and much rounded, having no distinct point. There is a shoal bank running off the shore to the S. and E., which, being in the direct route of vessels proceeding to and from the Red Sea, renders this one of the most dangerous capes on the coast; several vessels have been wrecked near it. There is safe anchorage, with E. winds, to the W. of the cape, in from 6 to 12 fathoms. The coast to the E. of Ras Ara continues low and sandy to Khor Amran, 13 m. distant, and is fronted by the bank already mentioned, which extends from 2 to $3\frac{1}{2}$ m. off shore, suddenly shoaling on its outer edge from 15 fathoms, and having many dangerous knolls, from 6 to 18 ft.

Khor Amran is a basin-like inlet, of 3 or 4 m. in extent, having a depth inside from 3 to 6 fathoms; but its entrance, which is on its W. side, is both shallow and intricate. This basin is formed by a narrow strip of land, so low as to be nearly covered at L. W. spring-tides. Immediately behind Khor Amran is the high land of St. Anthony (Jebel Kuruz,) rising to an elevation of 2,772 ft. Seven or eight miles farther to the E., the saddle hill, called Jebel Ghow, or Kau, rises to 798 ft., with several small hills near it; and about 3 m. to S.S.E., the black cape, Ras Ghow. The coast between Khor Amran and Ras Ghow, like the coast before described, is fronted by a sand-bank, extending in some parts about 3 m. off the shore; and although the limits of the bank may sometimes be seen from a ship's mast-head, much caution is always necessary in approaching this part of the coast, as the water shoals very suddenly. Ras Ghow is in lat. $12^{\circ} 40'$ N., lon. $44^{\circ} 26'$ E.

The coast from Ras Ghow to Ras Amran forms **Amran Bay**, and is low and sandy, interspersed with a few bushy shrubs, which is the character of the country for many miles inland. The soundings in this bay are tolerably regular, with a depth of 12 and 13 fathoms 2 or 3 m. off the shore. The bottom is principally clay and sand, but in some parts clay and shells, with occasional rocky patches. There is excellent shelter in this bay. Bunder Amran, from E. winds under Ras Amran, which cape forms the E. termination of the territory of the Subeihi tribe, numbering about 12,000 persons. Captain Haines, who had considerable intercourse with the inhabitants of this district, speaks of them as being of a naturally kind and friendly disposition, but that the cruel and treacherous treatment they receive from their hostile neighbours has made them suspicious and revengeful. They profess the Mahomedan religion, and are governed by two principal chiefs or sultans, who exercise an unlimited authority.

Ras Amran, in lat. $12^{\circ} 43\frac{1}{2}'$ N., lon. $44^{\circ} 42'$ E., is a small rocky island, fronted on its W. side by rocks, and separated from the peninsula of the main land by a narrow, rocky channel. The land forming the peninsula has an elevation of 700 ft., and there are two coves formed by rocky peninsular points on its E. side: the E. of these points is the peak called Jezirat Aboo Summa. In-shore of the low, sandy isthmus, there are a few fishermen's huts, and the tomb of Sheik Sumrah. The bay between Ras Amran and Jebel Hasan is called **Bunder Fuggum (Feikam)**, and contains a small island (Jezirat-el-Juhoob,) nearly mid-way between its extreme points. There is also a rock, generally above water, about 800 yards to E.S.E. of that island, with a 5-fathom channel between them. The soundings in the bay are regular, and vary from 3 to 7 or 8 fathoms, with sandy and muddy bottom. The land is a low, swampy tract of sand-hills, giving at H. W. each of the high capes the appearance of an island.

Jebel Hasan is a mountainous peninsula, separating the bays Bunder Feikam and Aden Bay. The highest part, which is near the centre, has an elevation of 1,237 ft., and there is a double peaked hill, known by the name of Asses' Ears, near its E. bluff point. This peninsula has six principal projecting points, the most S. of which, Ras Majellub Haidee, is in lat. $12^{\circ} 43'$ N., lon. $44^{\circ} 52'$ E. On the S.E. side of this peninsula there are nine rocky islets, nearly joining the main land at low spring-tides. One is in the small bay (Bunder Sheik) to the E. of Ras Majellub Haidee; two more in the entrance of the next bay, Khor Gadeer; another off the N.E. point (Ras Saleel) of this bay, and five off the E. bluff of the peninsula, within a mile of the land. On the W. side of Khor Gadeer there is a white tomb, near which the Ahkrabi deposit coffee, cotton, and a few other articles of merchandise for the small trading boats which resort to Bunder Sheik and Khor Gadeer, the only ports belonging to the Ahkrabi or Hagrabee tribe. There is a narrow inlet, called Khor Bier Hamed, or Seylan, round the E. bluff, running 2 or 3 m. in a W.N.W. direction, at the foot of the N. mountain of the peninsula, which, with the flatness of the isthmus and the inland country, give Jebel Hasan, when at a distance, the appearance of an island. The village of Bier Hamed stands on the sandy plain about 5 m. N. by E. of the inlet just described, and about 3 m. from the shore of Aden Bay. It has a fort, and is the residence of Hamed Ben Maidee, the Sheik of the Ahkrabi tribe, who, notwithstanding the limited extent of his territory, which according to Captain Haines does not exceed 20 square miles, has generally contrived by his vigour and warlike activity to maintain his independence. He gave a kind reception to Captain Haines and his officers, although his people, until subdued by fear, manifested a very hostile disposition towards the party on landing.

ADEN BACK BAY (called **Bunder Toowayi** by the natives,) is formed between the peninsula of Jebel Hasan and Jebel Shumsan. This bay is about 3 m. wide at the entrance, and expands to 8 m., if the inner basin or harbour of Aden be included. Its general depth is 3 and 4 fathoms, shoaling gradually to the beach: across the entrance, or from Ras Marbat towards the Asses' Ears, $4\frac{1}{2}$ to 5 fathoms will be everywhere found, and 10 fathoms at 2 m. off the S. shores of the two peninsulas, with sand and mud inside and outside of the bay. Some caution is necessary for small vessels in anchoring on the E. side of the bay, off Ahliya, where the water shoals rather suddenly. The town of Aden (Ahden,) is about 4 m. from the landing-place of Aden Back Bay.

Aden Harbour, or Inner Bay, is at H. W. between 3 and 4 m. long from N. to S., and 2 m. broad, but the sand-banks at its N. and E. shores, which dry at L. W. springs, contract the harbour to about two-thirds the above dimensions. The entrance, between the sandspit off the island of Ahliya on the N. and Ras Hejaf on the S., is, at L. W. about a third of a mile across: off Ras Hejaf is a sunken rock which must be avoided; the depths across the entrance, and in the centre part of the bay, are from 2 to $2\frac{1}{2}$ fathoms, decreasing towards the shore. This harbour is used solely by baghlahs and small vessels. There is a fine pier, and a large village has sprung up near it. The peninsular promontory of Ahden is almost divided from the main land by a creek on the E. side of this harbour, named Khor Maksa, similar to that behind Jebel Hasan, which gives

these lofty promontories—not very unlike in appearance—the aspect of two sentinel islands guarding the approach to the magnificent bay they enclose. The electric cable is laid down from hence to Suakin, Cosire and Suez; also to Bombay.

There are several islands in the Inner Bay; the E. and principal one, named Jezirat Sawayi, is 800 ft. high, and almost joined to the main land at L. W. springs: the others are named Marzuk Kabeer, Keis-el-Haman, Kalfetein and Feringi; and on the sand-spit at the N. side of the entrance are two small islets named Jam Ahli and Ahliya: outside, about 2 cables distant from the peninsula is the island Sheikh Ahmed, or Flint Rock, with a channel between of 2 fathoms.

The Outer Harbour for large vessels is very narrow, and only 1 m. long, E. by N. and W. by S., or parallel with the general shore of Aden, where the coal-sheds and Government offices are. The greatest depth is only 4 fathoms at L. W.: the average depth is $3\frac{1}{2}$ fathoms. Thus it will be seen how limited is the area of accommodation. **Moorings** are laid down for the Royal Navy, and for the P. and O. and French Companies. Large steamers of great draught are obliged to stay outside, to take in coal. The Harbour-Master attends to the berthing of vessels in the harbour. There are a Post-Office and Telegraph Office. A good scope of cable is requisite in mooring, in consequence of the sand-squalls which come from the N. and E. after very sultry weather, and which give but little warning. The usual anchorage is off Ras-ibn-Jerbaïn and Flint Rock, off the coal depôts situated near the former.

Supplies. The water supplied to the shipping from the wells is very brackish; but good water, distilled from the sea by a condensing apparatus, which has lately been erected in one of the small bays in the harbour, may be purchased at 13s. per ton, not including casks or boat-hire. Some ancient tanks, lately discovered near the town, has been cleared out, from which water may be procured at a less price, but the charge for carriage to the harbour would raise the cost to more than that of the distilled water. There are immense stores of coal at Ahden, the principal part of which belongs to the Peninsular and Oriental Company. Private merchants have large quantities stacked in the bay inside Flint Rock. There are great facilities for coaling-steamers. Provisions of every description are procurable; fruit and vegetables are scarce and dear. The population of Ahden was estimated at 25,000 souls in 1864.

LIGHTS. On Ras Marshig, the S.E. point of Ahden, in lat. $12^{\circ} 45' N.$, lon. $45^{\circ} 2\frac{1}{2}' E.$, a *fixed* light is exhibited, 244 ft. above sea-level, visible 20 m.; it is chiefly of use to vessels approaching Ahden from the E. Vessels, coming from the Red Sea will find that the light is hidden behind the S. cape of Ahden when bearing to the S. of E. by N., or if they are too near Jebel Hasan.

Light Vessel. A floating *fixed* White light, 35 ft. above sea, in lat. $12^{\circ} 47' N.$, lon. $44^{\circ} 58' E.$, is moored at 2 cables to the N.W. of Ras Marbut, in $2\frac{1}{2}$ fathoms water; the vessel is painted red, with a red ball at the mast-head, and exhibits a red flag during the day. At night, on a vessel entering, the light-ship fires a gun and burns a Blue light.

Anchorage. A vessel may anchor in any part of these bays; but the usual anchorage is between Flint Rock and Ras ibn Jarbeïn, off the coal-sheds, situated near the latter. (See also **Aden** in Chapters II. and VII.)

Tides. The tides in the bay are very irregular, being influenced by the currents outside. It is H. W., at F. and C., between the hours of 9 and 10; rise of springs about $8\frac{1}{2}$ ft. (Variation of compass $3\frac{1}{2}^{\circ} W.$)

Cape Ahden is a high rocky peninsular promontory, the most elevated part of which bears the name of Jebel Shumsan, and its highest peak is 1,776 ft. above the sea, visible 60 m. in clear weather. This peninsula has many projecting points, the most S. of which, Ras Sinaila, or Cape Ahden, is in lat. $12^{\circ} 44\frac{1}{2}' N.$, lon. $45^{\circ} 04' E.$ On the E. shore of the peninsula, in lat. $12^{\circ} 46' N.$, lon. $45^{\circ} 2' E.$, stands the town of Ahden; to the S. and S.E. of which are two small bays, called respectively Bunder Duras and Bunder Hokat, separated by the narrow projecting point called Ras Marshig, which now has a *fixed* light. On the N. side of Bunder Hokat, and fronting the town of Ahden, is the fortified island of Seerah. It is a triangular rock, about 430 ft. high, and $\frac{3}{4}$ m. in circumference. The small haven which formerly existed between this island and shore is now filled up with sand, and the island itself is at L. W. united to the main.

Directions. The coast round Cape Ahden is bold to approach, and a vessel may always choose her own distance. A vessel coming from the W. may steer direct for the light-vessel, and pass round to the N. of it; thence to the E. for the anchorage. A vessel from the E. will sight Marshig Light when 20 m. off, on a clear night. Pass about 1 m. to the S. of it, to clear Ras Sinaili and Round Island (which bears S.S.W. from Jebel Shumsan); then after passing Ras Tarsheïn at 2 cables' distance, she may steer directly for the light-vessel, and on to the anchorage. A vessel working into the bay, towards the anchorage, may stand boldly across in any direction, being guided

by the lead and Marshig Light, until the light-vessel is reached, to the N. of which the depth becomes less, and short tacks must be made. It is advisable always to moor, the anchorage being rather confined; and good scope of cable should be given, in consequence of the sand-squalls, which come from the N. and E. after sultry weather, and which give but little warning.

Ahden Road, or Front Bay anchorage, has regular soundings, and although during E. winds a heavy swell rolls in, good anchorage and smooth water may always be found in June, July, and Aug., during the W. winds, under the lee of Seerah. The hot, dry gusts from the hills are usually strong and very disagreeable. The coaling station for the rapidly increasing commercial steam-fleet of the world ought to be on either side of Ras Marshig.

The narrow isthmus of Ahden is low and sandy, and the coast, of a similar character, takes a N.N.E. direction for 18 m., when it bends gradually to E. by S., and continues in that direction for 12 m., to Ras Saylan, forming the bay of that name. Ships should avoid this bay when blowing fresh from the E.: one ship was wrecked here in 1836, and several buggalows narrowly escaped.

Ras Saylan, or Seilan, in lat. $13^{\circ} 3' N.$, lon. $45^{\circ} 22' E.$, is a low, round, sandy beach, having on it a few date and larger trees inland to the N. and W. The bank of soundings extends from the cape about 10 m., shoaling from 100 to 40 fathoms, with 12 fathoms at $2\frac{1}{2}$ m. distance, gradually decreasing towards the shore. From Ras Saylan the coast runs in a N.E. direction 22 m. to the Saddle Hill, called Kermin Kalassi, and then bends more to the E. to Shugra, 4 m. farther E. The shore here is lined by a reef, about a mile off shore; and S. by E. from Kermin Kalassi Hill are the Barrow Rocks, 2 m. off shore, which are two rocky reefs, the N.E. one having 2 fathoms water on it, the S. one having 1 fathom. A ship, in standing in towards this part of the coast, should not shoal her water under 15 fathoms. There is a good channel between these reefs and the shore, having from 4 to 8 fathoms water. Mid-way between Ras Saylan and Kermin Kalassi Hill, inland, stand the town of Es-Sáli and the village of El-Khor. Several conspicuous peaks stand about 8 or 9 m. from the sea-board.

Shugra, or Sughra, the principal seaport of the Fudhlee province, is a small village, and the occasional residence of the sultan. It has a castle, and its small harbour is formed by a break in the reef which lines the shore; its depths are from 1 to 3 fathoms, and it is capable of containing twenty moderately-sized boats. The mark for entering, is Shugra Castle, on with a hill shaped like a barn, with a peak on its W. end, about 6 m. inland, which is also a good leading mark for taking an anchoring berth off the town. The *Palinurus* anchored in 9 fathoms, 3 cables outside the reefs. The Castle is in lat. $13^{\circ} 21\frac{1}{2}' N.$, lon. $45^{\circ} 39' E.$ It is H. W. at 8 o'clock on F. and C.; rise of tide 6 ft., the flood setting to the W. Variation $3\frac{1}{4}^{\circ} W.$ This place is well supplied with good water; bullocks, sheep, poultry, onions, and pumpkins may also be purchased.

The coast-line between Shugra and Zeghir Mugatain, which is 39 m. farther E., is irregular, jutting out into small points, the land near the sea being very flat, except in approaching Jebel Arraz, 13 m. to the E. of Shugra, where the high land approaches the shore. At 17 m. to E. of Shugra is a ruin on the coast, with a village to the N. of it, 3 m. in-shore, and a tomb about 7 m. farther to E. At this point also terminates the bank of soundings, 20 or 30 fathoms being here at the same distance from the shore as 6 or 7 between it and Ahden; and the 100 fathoms line is only about 2 m. off the shore hereabouts; though off Mugatain it extends 6 or 7 m. The range of mountains, called by the Arab navigators Jebel Fudhlee, and by the natives Jebel Kharazi, extends 20 m. parallel with the shore, the highest part of the range, Jebel Arraz, being 5,442 ft. The summit of this range is singularly formed into gables, peaks, and bluff points. The most conspicuous gable mountain is 3,900 ft. above the sea, and has an opening in it like an immense embrasure, giving it from the E. the appearance of a double peak, and suddenly falling in with an almost perpendicular descent towards the sea. The valleys are thickly covered with vegetation. Zeghir Mugatain is merely a small boat-anchorage, formed by the projecting rocks of the coast; the bottom is shoal and rocky.

Mugatayn, or Makatain, which is 5 m. E. of the little boat-harbour just mentioned, is the anchorage to which the trading-vessels resort for shelter during the N.E. monsoon. The sandy point, which has a black ruin on it, is in lat. $13^{\circ} 24' N.$, lon. $46^{\circ} 25' E.$, having several low, rocky islets and sunken rocks extending $\frac{1}{2}$ m. in a S. direction, and two shoal patches, one $\frac{1}{2}$ m. S.S.W., and the other nearly $\frac{1}{2}$ m. E. of the other islet, with channels of 4 and 5 fathoms inside of them. The islets, being much frequented by birds, are perfectly white. The *guano* is used for agricultural purposes. It is on the W. side of these islets that vessels anchor in depths according to their draught. The bottom is generally sandy, but has a few rocky patches. From Mugatayn to Howah, a distance of 15 m., the coast is flat and sandy, with 10 and 12 fathoms about 1 or $1\frac{1}{2}$ m. off the shore, which is free from danger.

Howah, or Howayah, is a small village 5 m. inland, but, by the chart, there appears also a

village near the sea, called Howtha; the point on which it stands is called Ras Urlaji. Howah is the chief village of the Ourljee, or Urlaji tribe, and the residence of the sultan, by whom Captain Haines and his officers were received with great hospitality. Although the government is despotic, the chief, who is an independent sovereign, is highly esteemed by his subjects. Bullocks, fish, and an abundant supply of good water may be procured. The soundings along the coast to the E. continue pretty regular, the depths at 6 m. off shore being about 160 fathoms, and within $1\frac{1}{2}$ or 2 m., about 20 fathoms. The coast from Ras Urlaji is nearly straight E. by N. to the village of Sheik Abderaman Baddas, a distance of 40 m., and about mid-way is the conspicuous white tomb of Sheika Hourba, 7 m. to the E. of which is the limit of the Urlaji territory.

Sheik Abderaman Baddas is a rather prominent point of this sandy coast, and has a mosque, near which are a few fishermen's huts that form the village. It is exceedingly poor and miserable, and at the time of Captain Haines's visit could only boast of one small boat for the whole party. He was informed that there was a 40-fathom bank off this part of the coast, and another nearly S. of Ras Hamari, but he did not find them. The coast, after passing Ras Abderaman Baddas, runs in a N.E. direction to **Ras Sufwan**, 15 m. distant. This is a slightly projecting point, thickly covered with bushes, in lat. $13^{\circ} 48' N.$, lon. $47^{\circ} 34' E.$ **Howra** is a village lying on the N.E. side of Ras Sufwan, and 4 m. farther is Makanati Bluff, which is a whitish-looking point, veined by dark strata; it has a rock close off it, and a bight is formed between the two capes.

The Hamari range of mountains, commencing on the shore near Howra, has a peak about 14 m. inland, rising to the elevation of 5,284 ft. above the sea, which, either from the S.E. or S.W., resembles the roof of a barn, and cannot be mistaken by ships approaching the land on these bearings.

Ras-el-Kosair, Gooseyn, or Hamari, is a rounded cape, 8 m. E. of Makanati Bluff, with two very large trees on it; and E. $\frac{1}{2}$ N. 21 m. from Ras Gosseyn is Ras-el-Aseedah, a prominent cape, having on its extremity a rocky conical hill, 160 ft. high, which is readily discernible at the distance of 5 or 6 m. A bay is formed between Ras Gosseyn and Ras-el-Aseedah, with deep water, bottom fine sand and shells or stones, the deeper part being towards its E. side, where there is 40 fathoms about 2 m. from the shore. The village of Ayn-Aboo-Mahbad stands on the sand-downs 2 or 3 m. inland of the centre of the bay; there is an excellent spring of water in its neighbourhood. Between this place and Ras-el-Aseedah there are two other villages, called Ayn Jowári and Gillah, the former $\frac{1}{2}$ m. inland, and the latter a fishing village about 3 m. N.W. of Bah-l-Háf.

Bah-l-Háf, or Bel'aaf, is a little bay on the W. side of Ras-el-Aseedah, and is a good anchorage in E. winds. The bottom will be found entirely free from rock, unless a vessel should incautiously run too far to the N.N.W., where, between 1 and 3 m. from the cape, a shoal-bank of rocks and sand extends $\frac{1}{2}$ m. from the shore. In entering with a strong E. breeze, the point should be rounded at the distance of 300 or 400 yards, having taken the precaution of reducing the vessel to snug sail, in order to meet the sudden gusts which may be experienced immediately after rounding the cape. When round the point, keep Black Barn Hill about a point on the starboard bow in running for the anchorage. This Hill is near the shore, and bears N. nearly 2 m. from the W. extreme point of the cape. The bank of soundings in this anchorage is steep; Captain Haines anchored the *Palinurus* within 350 yards of the S. rocky point of the bay in 15 fathoms, and after veering away 60 fathoms of chain, had 23 fathoms at his gangway. At the head of the bay stands a rudely-constructed square tower, garrisoned by one or two soldiers. Between Ras-el-Aseedah and Hisn Ghoráb, a distance of 10 m., the coast is irregular, with jutting rocky points and small intervening bays, and mid-way is the remarkable volcanic promontory of Ras Rotl, a round and considerably elevated cape with a crater in its summit.

JEBEL HISN GHORAB is a square-shaped, dreary-looking, brown hill, on a rocky cape, 456 ft. in height, with steep sides, having off it to the S. the island **Helani** separated from the cape by a narrow and shoal channel. This island is $\frac{3}{4}$ m. in length N. and S., and $\frac{1}{2}$ m. in breadth, in lat. $13^{\circ} 58' N.$, lon. $48^{\circ} 18' E.$ Hisn Ghoráb is the site of the ancient Cana, Canaan, formerly one of the most important places on the Arabian coast. Many interesting ruins of the ancient city remain; (See "Bengal Asiatic Journal," for 1834.) It may again become of commercial importance, as there are the makings of harbours behind Heláni and Kadhrein islands.

Bunder Hisn Ghorab is a secure and well-sheltered bay to the E. of the cape which forms its S.W. point. It is $1\frac{1}{2}$ m. wide, but a rocky reef, extending from the E. shore, reduces the width of the entrance channel to $\frac{3}{4}$ m. Approaching from the S.E., a vessel should not near the E. point of the bay under a depth of 12 fathoms; and on passing Helani Island, in 8 and 9 fathoms, may stand right in for a square tower or house, which will be perceived at Bier Ali, on the N.E. shore of the bay, keeping it between N.N.E. and N.E. by N., and anchoring in 4 fathoms about $\frac{1}{2}$ m. off shore. Care should be taken not to bring the square house to the N. of N. by E. $\frac{1}{2}$ E., in order to

avoid the reefs. During the S.W. monsoon, a vessel in running in may keep more over to the W., so as to bring Cape Hisn Ghorab nearly S. $\frac{1}{2}$ W. of her. The soundings of the bay are generally clear sand, with an occasional patch of rock, and there is no danger within the harbour on its W. side. **Kadhrein, or Gulbrain Islands**, about 2 m. to the E. of Hisn Ghorab, and a mile off the shore, consist of one large and two lesser rocks, having a channel between the largest and the least 300 yards wide, with 12 fathoms water; also a channel between them and the shore, having 7 or 8 fathoms on the island side. The passage between the two smaller rocks is nearly dry at L. W.

SEKAH, or JIBOOS ISLAND. 4 m. S. $\frac{1}{2}$ W. of the above rocks, is in lat. $13^{\circ} 55' N.$, lon. $48^{\circ} 21' E.$, and has an elevation of 450 ft. above sea; the summit is flat, and white with *guano*, and may be seen 30 m. sometimes. The island is called Sekah by natives of this part, but Jiboos by Arab navigators, from its resemblance to a musical instrument of the Indians. The depths between it and the shore vary from 33 to 19 fathoms, with 100 fathoms 2 m. outside it.

Ras Makdah, or Mughda, is a moderately elevated cape, about 8 m. E. of Hisn Ghorab, having off it the island of Burhgha, which, being lofty and precipitous, has sometimes been mistaken for the cape; there is, however, a channel between them, through which the *Palinurus* passed, called Sanders Channel. It is about a mile broad, and perfectly safe, having from 15 to 17 fathoms in the middle. **Mughda Bay**, formed between the cape and the Kadhrein Islands, is described as a very excellent anchorage during the N.E. monsoon. It appears by the chart to have regular depths, from 7 to 16 fathoms, and to be free from danger, except in the N.W. part of the bay, where there is a sunken rock about $\frac{1}{2}$ m. from the shore. Mughda village is very small, and poorly supplied with the necessities of life; the water, also, is indifferent.

RAS-EL-KELB, or Cape Dog, is a low, sandy cape, $13\frac{1}{2}$ m. E. by N. from Ras Mughda, the shore on either side being of the same character as the cape itself. Caution should be used in approaching it at night or in hazy weather, as it is not then easily discernible; a depth of 14 fathoms is within 1 m. of shore, and 50 fathoms about 2 m. off. Variation in 1863, $3^{\circ} W.$

Ras Rehmat, or Cape of Wind's Death, 8 m. N.E. of Ras-el-Kelb, is elevated about 300 ft., and is the commencement of the mountain chain which extends to within 15 m. of Maculla; it also forms the E. boundary of the Wahidee territories. Sand from the plain has been blown up into a great heap on the S.W. face of the hill by the S. gusts of the S.W. monsoon. It takes its name (*Gull of the wind*, a term used by Arabs for a calm) from the effects experienced by the baghalahs in running up the coast during the *tadh-bireh*, or early part of the S.W. monsoon; the Arabs consider that, when they round the point, the violence of the wind has abated. The coast from Ras Rehmat continues in a N.E. direction to Ras Asassah or Asr-el-Hamra, 6 m. distant, between which cape and Ras Broom, 8 m. farther, is Gubet Gulloon, or Gollain, which is described as an indifferent anchorage.

RAS BUROOM, or BROOM, in lat. $14^{\circ} 18\frac{1}{2}' N.$, lon. $48^{\circ} 56' E.$, is a bold, craggy headland, visible at the distance of 38 or 40 m. A reef extends from it $\frac{1}{4}$ m., on each side of which the water appears to be deep.

Bunder Broom is a bay to the N. of the cape, and is a secure anchorage in the S.W. monsoon; but having the points which form it nearly N. and S. of each other, it is open to all E. winds. Captain Haines recommends anchoring in 6 or 7 fathoms, with the town of Broom bearing N.W. by N., and Ras Broom about S. by E., but of course a ground swell will roll in during the S.W. monsoon. Wood, water, and other supplies, may be procured at the town. Between Ras Broom and Ras Maculla, a distance of 15 m., the country is a plain, enclosed by a semi-circular range of mountains which terminates in these two capes. The soundings off the coast are generally pretty regular, deepening towards Maculla. Midway between Broom and Maculla stands the town of Fooah, the inhabitants of which appear to entertain a strong dislike to Europeans; and on Captain Haines's visit they insulted his officers during a ramble in the valleys, notwithstanding the evident fear with which the presence of the ship had inspired them. The place is not much frequented by strangers. (See POPULATION and TRADE, at end of Chapter.)

MAKAILLEH, or MACULLA, is the principal commercial depôt on the coast of Arabia. The town stands on a projecting, rocky point, which has a small bay on each side of it. The flag-staff on the house of the Governor is in lat. $14^{\circ} 30\frac{1}{2}' N.$, lon. $49^{\circ} 6' E.$, and is situated beneath the remarkable hill called Jibel Garrah, the circular summit of which rises above the steep cliffs commanding the town, and on which six towers have been erected for its protection. The base of these cliffs is lime-stone, with a superstructure of white marble traversed by grey and blue veins, the surface having a slight sandy appearance: this high land can be seen at 40 m. distance. The trade of Maculla is very considerable, and is carried on with India, the Red Sea, and the Abyssinian ports, in rice, cotton, cloths, coffee, dried fruits, &c. The horrid traffic in slaves is also fearfully encouraged by the import of great numbers of both sexes. The duty on goods from India is 5 per cent., and

vessels are charged anchorage dues of 5, 10, or 15 dollars, according to their size. The duties, according to Captain Haines, amounted, in 1834, to 3,900 dollars, which in 1836 were increased to 6,000. (See also **Trade** at end of this Chapter.)

Maculla Bay may be said to extend from Ras Broom to Ras Maculla; but the name is more properly restricted to the E. portion of this large bight, comprehended between the town of Fooah on the W. and Cape Maculla on the E. There is very deep water in the centre of the bay, the anchoring bank extending not much more than $\frac{1}{2}$ m. off the shore near the town, increasing to nearly a mile in width off the low, sandy beach, towards Fooah. Of the two small bays near the town, and which afford shelter for boats, the W. one is the most frequented. It has the town on the E., and is protected on the W. side by a reef which projects $\frac{1}{2}$ m. from the shore. There is a sunken rock a short distance off the reef, with $1\frac{1}{2}$ fathoms on it; vessels, therefore, should be cautious in standing too close in near this spot. In coming into the bay from the S.W. or the W., to avoid the shoal water on the W. side of the anchorage, the flag-staff should be brought in one with the second tower, to the E. on the cliffs, and when in 12 fathoms the vessel should be rounded to, which will bring her into 8 or 9 fathoms on anchoring.

There is sometimes a heavy swell rolling into the Bay when the sea-breezes blow strong, but the wind usually lulls towards evening and the sea goes down. Maculla harbour is reckoned one of the best, and the principal commercial town on the S. coast of Arabia. The natives assert that a vessel having chain-cables might safely ride out the S.W. monsoon here; they also say that the wind at this season blows with great violence during the day, but decreases as the sun declines, often blowing strong enough in the morning from the N.W. to carry a ship clear to sea. The weather in the Bay is very warm during the middle of the day; and on shore the heat is excessive. Land and sea-breezes, with light showers of rain, are occasionally experienced in Oct., Nov., March, and April, and often in June and July: these tend to cool the atmosphere.

Ras Maculla is the narrow, but rather high neck of land, projecting into the sea, about 2 m. to S.E. of the town. There is a rocky patch off it, about $\frac{1}{2}$ m. to the S., having less than 4 fathoms on it, with 16 or 18 fathoms inside. The bay formed on the E. side of Ras Maculla is called Bunder Rowayni.

The Coast from the high land of Maculla is straight, and the country is flat and barren for nearly 20 m. to the E.N.E. to the table-land, called Jebel Dhebah, the shore being bold and safe to approach. Immediately to the N.E. of Ras Maculla stands the fishing village of Raghib, with its mosque, and 3 m. from it the town of Bu-Heish, surrounded by date-trees, and possessing numerous springs of water. Ten miles farther, towards Jebel Dhebah, are the ruins of the once flourishing town of Shehr, formerly the seat of government of the Kasaidee tribe, but now almost deserted, in consequence of the chief having removed his residence to another city. The population may now amount to 300 persons, the greater part of whom are fishermen. **Jebel Dhebah**, before mentioned, is an oblong table-hill near the sea, and being entirely detached, it becomes an excellent guide for making Maculla from the E. **Sook-al-Baseer** is a considerable town, inland to the N.W. of Jebel Dhebah. Tobacco, vegetables, and excellent water may be obtained there; also remarkably good dates. Its mosque may be distinctly seen from the sea.

SHEHR, or SHAHAH, about 8 m. E. by N. of Jebel Dhebah, is a very large town, being upwards of a mile in length, and the capital of the province of the same name. The sultan's house or castle is the most conspicuous building in the town. It occupies an elevated position, is fortified at each angle with a circular tower, and may be seen from seaward long before the rest of the town. It is in lat. $14^{\circ} 43\frac{1}{2}'$ N., lon. $49^{\circ} 33'$ E. The anchorage is an open roadstead, with regular soundings, the depths 1 m. off the shore varying from 7 to 12 fathoms. About the best position is in 7 or 8 fathoms, with the principal mosque bearing N. Vegetables, bought from the neighbouring villages, are at all times to be procured here; and sheep may also be purchased. The water is bad. Jebel Yucalif, a hill 4 m. N.E. of the town, on which are the remains of a zig-zag wall, is considered the best mark for ships in running in for Shahah Roads; a vessel has only to keep this hill a little on the starboard bow till the town is visible.

Hami, or Hahmee, is a village 13 m. to the E. of Shahah, situated just beneath a double hill, and having near it a grove of date-trees. The coast appears by the chart to consist of steep, rocky cliffs, which extend several miles on each side of the town. The soundings are regular, and the shore may be approached at any part to the depth of 8 or 10 fathoms. Anchorage about a mile off shore may be taken, in 7 or 8 fathoms, sand, shells, and broken coral. Supplies are very expensive, and difficult to be obtained. The sheep are small, and the water not very good. A duty of 3 per cent. is demanded from all vessels anchoring here on every article landed or purchased. There are numerous hot springs in the neighbourhood of Hahmee; those examined by Captain Haines had a temperature of 140° .

The Coast between Hahmee and Ras Sharma forms a large bay, comprehending within it the anchorages of Sharma and of several places of less note. The soundings on the coast are generally regular, the depths varying from 7 or 8 fathoms a mile off the shore, to 38 and 40 fathoms 3 m. off, outside of which the depth rapidly increases to 100 fathoms. A high range of mountains stands parallel to the coast, at from 10 to 15 m. off. Jebel Jamboosh is to N. of Maculla, and Jebel ibn-Shamayik to N.E. of that. The Hamoom tribe own the coast territory from Fooah to Misenat, a distance of 100 miles.

SHARMA BAY, where are the ruins of Hisn-el-Misenát, is bounded by Hahmee Point on the W., and Ras Sharma on the E., and is considered the best anchorage on the coast for shelter in the N.E. monsoon. The E. shore of the Bay runs in a S.S.E. direction till terminated by the Cape Ras Sharma, which curves round and projects to the S.W., affording protection from the S.E. winds. One-third of a mile W. of the cape is a rock, called Jezirat Sharma, 70 ft. high, having a channel of 5 or 6 fathoms between it and the cape, and 10 or 12 fathoms outside. There are several villages round the Bay, which give names to the smaller bays, formed by the projecting points of the shore. These small bays are used by the boats and native vessels. The most frequented anchorage is off the village of El Ghurn, in from 2 to 5 fathoms. The cove called Bunder Sheser, immediately to the N. of the cape, affords also good anchorage in 4 or 5 fathoms. It is H. W. on the F. and C. of the moon at 9 h. Rise 8 ft. Variation $2\frac{1}{4}^{\circ}$ W. The towns of Dees and Thubba are situated a few miles inland, in the neighbourhood of which are hot springs, of peculiar efficacy in rheumatic complaints.

The coast from Ras Sharma runs in an E. direction to Ras Baghashoo, a distance of 7 m., forming a line of lime-stone and chalk cliffs, rising between 300 and 400 ft. perpendicularly from the sea. These cliffs may be clearly seen at the distance of 25 m. Mid-way between the two capes there is a hollow opening in the cliff, near which is the village of Dthugaum. The opening is fronted by a sandy beach, off which is an anchorage for boats. Four or five miles N. of Ras Baghashoo there is a mountain, called Jebel Hamoom, but marked in the chart Sand-hill. The neighbourhood is tolerably well cultivated and has springs of good water; it is also interesting to the antiquary, from the numerous hieroglyphic inscriptions found here, in the same character as those of Hisn Ghoráb. From Ras Baghashoo, the coast runs E.N.E. for 12 m. to Ras Gossierh, to the E. of which, a mile inland, stands the town of the same name. There is a square fort $\frac{1}{2}$ m. N.N.W. of the town.

Ras Kosair or Gossierh is very rocky close in shore, in the neighbourhood of the point, from which a shoal extends nearly $\frac{1}{2}$ m. to the S. and $\frac{1}{4}$ m. to the W.; but a vessel may find good anchoring-ground, but no shelter, off the reef in 12 or 14 fathoms. Sharks abound on this coast, and are caught here in great numbers, the body being eaten by the natives, and the tail and fins reserved and sent by way of Muskat to the Chinese markets. The coast to the E. of Gossierh for 22 m. to Misenaut is low and uncultivated, having several villages and towns near the sea, the principal of which is Raidah, about mid-way between the towns just mentioned. Raidah is the residence of the chief of the district, between Ras Baghashoo and Misenaut, and contains about 700 inhabitants, the houses of which are principally built of mud and stone, and huddled together without any apparent regard to comfort or convenience. The trade, which is very trifling, is chiefly carried on between this place and Shahah and Maculla, Socotra, Mocha and Zanzibar, and consists in frankincense, aloes, ambergris and sharks' fins; the last-named articles being the most lucrative. The water off the coast is very deep, there being as much as 20 fathoms within $\frac{1}{4}$ m. off the shore, suddenly deepening to 120 and 130 fathoms 2 m. off.

Ruins of Misenaut. At 12 m. to E. of Raidah stand these ruins, in lat. $15^{\circ} 3' N.$, lon. $50^{\circ} 37' E.$ They are interesting to the antiquary, and appear to have once formed part of an important town. The country near them is now a swamp, and traces of lagoons or harbours are visible near the ruins. Effusions of **black basalt** are found in several places on the plain between Raidah and Wadi Maseelah. The Arabs call them *Hareek*, or burnt place. At each there is one cone (or more,) about 100 ft. above the surrounding ground; and around each cone there is a low field or tract of basalt, strikingly contrasting by its blackness with the light colour of the plain. There are no signs of present active volcanic eruption. Near Raidah the basalt had streamed into the water-courses, and appears at their openings on the shore in black rocks, contrasting strongly with the white lime-stone on either side.

PALINURUS SHOAL (Abdul Kuri,) is situated 10 m. S. $\frac{1}{4}$ E. of Misenaut, and was discovered by Captain Haines, who thus describes it:—It extends 1,850 yards in a N.N.W. and S.S.E. direction, and is from 150 to 300 fathoms broad, with a bottom of alternate rock and coral. The soundings round this shoal cannot be relied on, as they vary very suddenly, and do not always decrease in approaching it. The nearest land is that of Misenaut, the ruin being nearly in a line with the E. bluff of Sheik-Háwi Gap, an opening in the mountain 10 m. inland. When on the

shoal this gap lies fairly open, its W. bluff bearing N. $\frac{1}{2}$ W., and the E. end of Sheik-Háwi Mountain N. by E. $\frac{1}{2}$ E. The sandy beach on the main land is not discernible. Captain Haines recommends navigators to avoid this spot, by passing between it and the shore, or by keeping a good offing, as he believes it to be rapidly shallowing.

The least water found on it was 17 ft., and the soundings near it were as follow:—N. of the shoal 2 m., 120 fathoms; N.E. at $\frac{3}{4}$ m. off, 120 fathoms; E. $2\frac{1}{2}$ m., 96 fathoms; S.E. 2 m., 64 fathoms; S. $2\frac{1}{2}$ m., 130 to 140 fathoms; S.W. at 1 m., 80 fathoms; W.S.W. at $\frac{3}{4}$ m., 105 fathoms; W. at 1 m., 130 fathoms; N.N.W. 2 m., 140 fathoms. By the chart there is another bank 2 m. nearer the shore, but with not less than 25 fathoms on it.

The coast from Misenaut runs in an E. by N. $\frac{1}{2}$ N. direction, and is nearly straight; the soundings appear to be regular, varying from 12 to 15 fathoms at 2 m. off shore.

Sihoot is 33 m. to the E. of Misenaut, in lat. $15^{\circ} 12' N.$, lon. $51^{\circ} 12' E.$; soundings for the hand-lead extend further off shore hereabouts; the ship *Topaze*, within 3 m. of it, had 8 and 7 fathoms. About 2 or 3 leagues E. from it, the coast is high and steep-to, forming two or three small bays. **Ras Akab**, at 8 m. to E. by N. of Sihoot, is a high, red, sloping, rocky point. **Ras Atab** is 8 m. further, and **Bunder Atab**, or **Liban**, is the bay beyond, extending to Ras Sharwain.

RAS SHARWAIN, or KESHIN POINT, in lat. $15^{\circ} 19' N.$, lon. $51^{\circ} 39' E.$, is 27 m. to the E.N.E. of Sihoot. Its highest peak, which stands 2 m. to the W. of the Point, is 750 ft. above sea, and may be seen 10 or 12 leagues; when viewed from the E., two sharp peaks, called the Ass' Ears, are discerned, which make it easily known, as they are near the point. The cape is high and dark, and forms the W. limit of Keshin Bay; it is bold to approach, with deep water under the cliffs. There is anchorage in the bay to the W. of Keshin Point, which is the E. limit of Bunder Liban, and affords shelter from N.E. and N. winds only. Sand blown high up against the S. face of Sharwain Hills, attests the violence, or rather the continuous strength, of the S.W. monsoon.

Bunder Lask is the deep bight close round the N. side of Ras Sharwain, affording excellent shelter during the S.W. monsoon for vessels of any size. The town of Keshin, one of the principal ports of the Mahrah tribe, and the residence of the Sultan, lies nearly 5 m. to N. by E. of the cape. When the Ass' Ears bear W. by N., the bay to the N. of the point begins to open, and has in it regular soundings, from 12 fathoms at the entrance, to 4 or 5 fathoms, sandy bottom, near the villages in the bottom of the bay, where ships may lie sheltered from S.W. winds. The village of Keshin has a well to the W. of it, nearly a mile from the shore, the only place where water can be procured.

Ras Derkah, at 14 m. to E.N.E. of Ras Sharwain, is a bluff, precipitous, sharp point, formed of rugged and nearly perpendicular cliffs, from 200 to 400 ft. in height; the point projecting to the S.E. for $2\frac{1}{2}$ m. from the line of coast. Thus it affords good shelter and anchorage during the S.W. monsoon. A **sunken rock**, however, lies at $3\frac{1}{4}$ m. to the N.E. of the cape, or about 2 m. to the E.S.E. of the N. extreme of Derkah cliffs, where sandy coast recommences. Saghar and Hasweil (both affording good water,) are villages along this coast. **Kesid** (or Teif, as Arab seamen call it) is a small fishing village under the high land of Fartak, and about 3 m. to the W. of the tip of the cape. Off this village is the usual anchorage for boats, during the N.E. monsoon, trading with the Mahrah tribe, who do not seem well-disposed towards Europeans. **Wadi**, one of the most powerful towns belonging to the Mahrah tribe, lies about three hours' journey from Kesid landing-place. (See **Population and Trade**, at end of this Chapter.)

RAS FURTAK, in lat. $15^{\circ} 39' N.$, lon. $52^{\circ} 14' E.$, a beautiful promontory, is about 2,500 ft. high, may be seen at 20 leagues' distance in clear weather, and cannot be mistaken, as it projects far into the sea, rising perpendicularly in some places; when 10 or 12 leagues off it, in a S. direction, it appears like an island with a gap in the middle. Its E. face is a sheer scarp, about 3 leagues in length N. and S., and this has some 1,900 ft. of elevation above the sea, from which it is distant about 2 m.; this E. bluff, as seen from a distance of 10 or 15 leagues to the S., is in lat. $15^{\circ} 38' N.$, lon. $52^{\circ} 11' E.$ Ras Furtak is supposed to be the **Suagros** of the *Periplus*.

Khor Kalfot, in lat. $15^{\circ} 52' N.$, and situated 14 m. to the N. of Ras Fartak, is a small creek in the depth of a little bay, where boats of 30 and 40 tons are hauled up during the S.W. monsoon, the premonitory swell of which commences to roll into the bay in the month of April, causing a heavy surf on the beach, though it is sheltered from the monsoon wind. As a general rule, the winds are light and variable all the year round in the depth of the bay under the lofty range of Furtak.

The soundings abreast Cape Furtak are from 9 and 17 fathoms close in, to 50 fathoms 3 m. off shore, and the coast to the N. of it takes a N. direction, forming an extensive and deep bay, in which there are soundings proper for anchorage. Variation off the cape, $1\frac{1}{2}^{\circ} W.$ The current ran strong to the E. in March, and is known to be very strong in S.W. monsoon.

Gubet-el-Kamar. Ras Sejer lies about 100 m. to the N.E. of Ras Furtak, in lat. $16^{\circ} 45' N.$, lon. $53^{\circ} 33' E.$, having between them the extensive bay, Gubet-el-Kamar. From about 18 m. N. of Ras Furtak, the shore of the bay for 40 m. to the N.E. appears to be low and sandy, with soundings to 30 and 40 fathoms at 10 m. off. The Furtak range, above Kalfot, runs back to the N.W. for 20 or 30 m.; then again the mountains approach the shore, rising to an elevation of 2,000 and 3,000 ft., continuing in a ridge to the E. beyond Ras Sejer. Off this high land the coast is steep to, having from 50 to 100 fathoms 4 m. off. Mount Sejer, near the cape, has 3,380 ft. elevation above the sea. **Damghot**, 65 m. to the N.E. by N. of Ras Furtak, is the only sea-port in Gubet-el-Kamar; off this place a reef of rocks extends 250 yards to the S.E., forming a landing-place on its E. side, when the S.W. swell is not very heavy. The whole range of mountains, from the N. by W. of Damghat to Ras Sejer, comes under the general appellation of *Jebel Kamar*, and they are clothed with wood from base to summit.

Ras Risoot is 27 m. E.N.E. from Ras Sejer, having an islet close to the point. There is a small bay (Bunder Risoot) immediately to the N. of the cape, having from 3 to 4 fathoms water in it. A vessel would find good anchorage and shelter during S.W. winds, in from $4\frac{1}{2}$ to 5 fathoms, about 4 cables to N.W. of the islet off Ras Risoot. Ruins of the ancient city **Al-Balad**, are to be found about 8 or 9 m. to N.E. by E. of Ras Risoot; and near Dyreez, a lake of good water. Variation, $1\frac{1}{2}^{\circ} W.$ The coast from Bunder Risoot runs nearly due E. 35 m. to Merbat Bay.

MERBAT BAY has low land on its E., but high land on its N. side, a range of mountains passing near the head of the Bay and along its N.W. shore. *Jebel Doahn*, or Merbat Peak, 3,690 ft. above sea, stands 5 m. to N. of the town. Ras Merbat is low and rocky, projecting to the S.W. and forming the S.E. side of the Bay; it is in lat. $16^{\circ} 58' N.$, lon. $54^{\circ} 41' E.$ The shore is safe to approach, with regular soundings, and the cape may be passed within $\frac{1}{2}$ m. in 10 or 12 fathoms. The town, consisting of about 200 inhabitants (who are well-inclined towards the English,) is 2 m. inside the point; opposite to which is the best anchorage, in 7 or 8 fathoms, about a mile from the shore, with the point bearing S. The water here is brackish, although Merbat is a common resort of coasters to obtain water. About 4 m. to the W. there is a mountain rivulet of good water, where vessels can fill up their tanks in the N.E. monsoon.

Captain Smith, with a convoy of 17 sail of store-ships, put into this place, remained in the road eleven days, and filled up their water. This was effected by sinking casks near the mosques; the water was brackish, but it did not injure the health of the people. Fish were plentiful; some goats, sheep and bullocks were procured; the latter were scarce, but fodder more so. This place ought not to be chosen by ships requiring refreshments, except in cases of real necessity; a few lean bullocks, goats, or a few fowls, are all that may reasonably be expected. The inhabitants are at first shy to strangers, and although they may afterwards appear friendly, ought not to be implicitly trusted. It was formerly imprudent for people landing in boats to venture far from the beach, or to sleep on shore in the night. The natives were generally armed with spears.

Merbat is the principal trading town of the province of *Dofar*, which yields frankincense and gum-arabic. (*See Trade*, further on.) Rain seldom falls at Merbat, or on the belt of sterile low land between it and Ras Noos; but to the W., the mountains and valleys of *Dofar* receive a great deal. From Merbat Bay to the distance of 7 or 8 leagues to the E., a low, level plain fronts the sea, which seems to be about 2 leagues in breadth, and inland is bounded by the base of a ridge of steep mountains, called *Jebel Sabhan*. The W. end of this ridge is directly over Merbat Bay, from whence it extends a great way to the E., along the N. side of the low land, until it joins the coast near Ras Noos. This high ridge may be seen at 20 leagues' distance in clear weather, and the W. part of it near the bay is called the Peak of Merbat, which is 3,690 ft. above the sea. An isolated high mount, resembling a sugar-loaf, stands on the low land about 12 m. to the E. of Merbat, is called *Brown Hill* on the chart, and may be discerned nearly 20 leagues' distance. There is a second sugar-loaf hill, *Jebel Kinkeri*, in about lat. $17^{\circ} 2' N.$, lon. $55^{\circ} 1' E.$, on the low land farther to the E.; and a third, *Jebel Maseera*, near Ras Noos. **Bunder Kinkeri**, under the hill of that name, is a small, sandy bay, with irregular soundings, varying from 8 to 12 and 16 fathoms; the bottom rock and sand. It shelters from N.E. winds.

Tides. It is H. W. about 9 h. at F. and C. of moon, and the tide rises on the beach 6 or 7 ft.

The Belat, or N. wind of the *Kooria Moorria Bay*, seems to be hindered, by the lofty *Jebel Sabhan* mountain range, from blowing down upon the low land of Merbat; and it blows over that place as a strong S.E. wind during the day, with light and variable airs at night. The Belat blows at Risoot, but not to the W. of Ras Sejer; indeed, its limits are from the latter cape to *Masserah Island*, and its periods are from mid-Dec. to mid-March.

RAS NOOS, in lat. $17^{\circ} 14' N.$, lon. $55^{\circ} 17' E.$, about 40 m. by the bend of the coast to E. and N. of Merbat, is a low but prominent rocky cape, at the S.W. extreme of *Kooria Moorria*

Bay, and was formerly called by navigators Ras Jingery. **Jebel Noos**, 1,200 ft. high, looks down upon the cape, at $1\frac{1}{2}$ m. to the W. of which it stands, like a gunner's quoin; the highest part is near the sea, thence sloping down to the W. The cape, before known as Ras Noos, is Ras Hasek, and is 8 m. further to N. The general direction of the coast between these capes is N. by E., the land rising at once from the shore to a considerable elevation at the E. side of the Jebel Sabhan range. Jebel Habareed, to N.W. of Ras Noos, is 4,000 ft. high. There are no soundings under 40 or 100 fathoms until close to the land, except in **Bunder Noos**, the little bay on the N. side of Ras Noos, where the bank extends 2 m. off shore. There are springs of good water at the head of this bay, and it affords shelter from S. and from W. winds in 9 fathoms, about $2\frac{1}{2}$ or 3 cables from shore.

KOORIA MOORIA BAY is comprehended between Ras Noos and Ras Sherbedaht, in lat. $17^{\circ} 53' N.$, lon. $56^{\circ} 19' E.$, having off it several islands. Ras Hasek is more properly the S.W. point of the bay; it projects from the usual coast-line in a sharp point about $\frac{1}{2}$ m. due E., having immediately behind it the mountain of Jebel Hasek, backed by Jebel Subhan, which rises to an elevation of 4,000 ft. There is no bottom at 100 and 130 fathoms at the distance of $\frac{1}{2}$ m. off the extremity of the cape, but the bank of soundings commences on its N. side, the outer edge of the bank extending from the cape to the islands, the nearest of which, Haski, lies 15 m. E.N.E. of it. **Bunder Hasek**, a small bay on the N. side of Ras Hasek, affords shelter from S. winds close to the shore. The shore towards Ras Therrar, about $4\frac{1}{2}$ m. N.W. of Ras Hasek, is irregular and indented, with a small sandy cove fronting the Wadi Rekot Valley about mid-way, where there is a fresh-water spring. This is at the S. extreme of Gubet-el-Doom, a bay which shelters from S.W. winds, and affords fresh water at many places.)

Ras Therrar is a low sandy point; but about a mile to the S. of it the land rises into steep cliffs backed by high table-land, which is the character of the W. shore of the bay for 25 m., with the exception of a spot 7 m. N. of Ras Therrar, where a low, sandy beach fronts a valley in which there is a pool of fresh water. Nine miles N.E. of this sandy cove, about the centre of the range of cliffs, is Ras Montejib, with a rugged peak close to the N. of it. The steep cliffs terminate 7 m. N.N.E. of this cape, and the mountain-range runs back for 2 or 3 m., and after continuing in a direction parallel with the shore, again reaches the sea at Shuamea Point. The shore and the plain fronting the mountains is low and sandy, with some bushes on it, the coast-line being nearly straight in an E.N.E. direction. There is a sand-hill near the cliffs at the W. extreme of the low lands, and a clump of trees or bushes, with fresh water near them, at the E. extreme by the high land or Dark W. point of Shuamea. The coast from this point again assumes a bold character, being composed of steep cliffs, which run in an unbroken line for 25 m. in an E. direction to the E. of Ras Minji.

Ras Shuamea is a point 9 m. E. of the Dark point of Shuamea, and 10 m. farther, in the same direction, is the point called Ras Minji, having fresh water near it. The cliffs, about 2 m. E. of Ras Minji, are 700 ft. high, from thence decreasing, until leaving the shore about 2 m. farther to the E. they terminate a mile inland. Between this point and Ras Gurwao, or Karwao, the shore is low and sandy for 7 m., resuming its cliffy character about 2 m. W. of that cape. Ras Gurwao and Ras Sherbedaht, a cape 2 m. E. from it, as well as the intermediate coast, have the steep, rocky character of the cliffs already described. There is a sand-hill a mile to the W. of Ras Gurwao, and the cliffs here assuming a concave outline, are fronted by a piece of low land, the shore of which appears to be lined with rocks. At **Ras Sherbedaht**, a steep projecting bluff head land with a tabular surface, in lat. $17^{\circ} 53' N.$, lon. $56^{\circ} 20' E.$, the coast suddenly alters its direction from E. to N.N.E. and N.E. towards Ras Saugra.

Bunder Sherbedaht is the name, given by Arab boatmen, to the narrow strip of good anchorage, with 5 to 10 fathoms water, to the S. of Ras Sherbedaht, towards Gurwao. Here the native vessels, running down the coast, take shelter from the Belat or N. wind. Vessels, coming from the N.E., should round Ras Gurwao very close, and be prepared for strong gusts, both in rounding the capes, and in making for anchorage, where they can get fresh water at the pool or lake, which has a large mangrove tree to mark its position, just to the W. of Ras Gurwao.

The **Kooria Moorla Islands** are five in number, viz., Haski, Soda, Helahneea, Jibleea, or Kibleea, and Kirzawet, or Rodondo. The first four are situated on the edge of the bank of soundings, and lie in a line nearly E. and W., parallel with the N. shore of the bay, from which they are distant 22 m. They are generally bold and rocky; their hills, for the most part, rising into regular conical peaks.

HASKI, the W. island, lies, as already stated, about 15 m. E.N.E. of Ras Hasek. It is $1\frac{1}{2}$ m. long from N. to S., and about $\frac{1}{2}$ m. broad, having high peaked hills near its S. point. It is of granite, without a vestige of vegetation, and its surface is quite white, covered with guano. The edge of the bank passes very near the S. point of this island, there being at $\frac{1}{2}$ m. from it, no bottom

at 145 fathoms. The average depths round the island, 1 m. off its shore, are from 25 to 30 fathoms, and there is a rock which dries at L. W. $\frac{1}{2}$ m. off its W. shore. The rock bears about W.S.W. from the N.W. point of the island, and has a channel of 16 fathoms inside it.

SODA ISLAND lies 12 or 13 m. E. of Haski, and is 3 m. long from E. to W., and $1\frac{1}{2}$ m. broad. The land is high and formed into peaks, the highest of which, near the centre of the island, attains an elevation of 1,310 ft. Its shores are rocky and pointed, and there is a sunken rock surrounded by a bank, about a mile to the W. of its S.W. end: there appears to be a narrow channel inside this rock, having 5 or 6 fathoms in it. There is also a ledge or spit of rocks extending from a point near the middle of the S. shore, which forms the S.E. shelter to a small cove, on the W. side of the point, a good anchorage in the N.E. monsoon, and during Belat winds, having 9 or 10 fathoms in its centre, with Jebel Soda bearing about N.E., and the W. point of this cove in a line with the S.W. point of the island; the tip of the rocky spit will then bear about S. by W.

The soundings round Soda, at a mile distance, vary from 10 to 40 fathoms, the bottom being of sand and rocks on the E. and W. sides of the island; sand and shells, and sand and coral, on its N. side; and gray sand on its N.W. side. The edge of the bank passes within $\frac{1}{2}$ m. of the S. shore of the island, there being no bottom at 95 and 100 fathoms at that distance off. There is a well near the S.E. point.

HELAHNEEA, the largest of the Kooria Mooraa group, is about 16 m. in circumference, and is situated $4\frac{1}{2}$ m. to the E. of Soda. Its lofty granite peaks (the highest, 1,500 ft. above sea,) give it a rugged appearance, and it is further remarkable from the bold projecting promontory of lime-stone which forms the N. part of the island. The extreme point of this promontory is called Ras Helahneea, or Ereekh-er-Raheeb, and is in lat. $17^{\circ} 32\frac{1}{4}'$ N., and lon. $56^{\circ} 2'$ E. This lime-stone bluff is 1,645 ft. high, and presents a rugged and nearly perpendicular cliff to the sea for upwards of a mile on each side the cape. There are shoals and rocks extending from $\frac{3}{4}$ to 2 m. off the W. and S.W. points of the island. One of these rocks, situated $\frac{3}{4}$ m. from the point, dries at L. W. spring-tides: between these coral patches there are narrow channels of from 5 to 10 fathoms.

Gubet-er-Raheeb is the N.E. bay of the island, between Ras Helahneea and Ras Sair, and affords good shelter from any S. winds between S.S.E. and W., and good anchorage in 7 to 10 fathoms. There are two wells of fresh water to the S. of this anchorage.

The Belat Winds, or Northers, occurring between mid-Dec. and mid-March, render this place unsafe then. During the occupation of Jezirat Helahneea by the Red Sea and India Telegraph Company, one of these *belats* blew violently for twenty days; they generally last from one to three days, and sometimes for an entire week. On the 19th Dec., 1834, the *Reliance* whaler was wrecked on the Kooria Mooraa Islands during a furious *belat* from N.W. Captain Haines, of the late Indian Navy, who surveyed the bay and islands in 1834—1835, found numerous remains of wrecks. The winds and weather hereabouts appear more boisterous than at any other part of the coast.

Ras Sair, in lat. $17^{\circ} 30'$ N., lon. $56^{\circ} 5'$ E., the E. point of the island, is fronted by a rocky bank, which is continued from the cape 2 m. along the S.E. shore, off which it extends nearly a mile; and there is a 3-fathom patch off the S. point, bearing S.E. by S. from it $\frac{1}{2}$ m. The large bay, Gubet-er-Raheeb, is formed between the N. and the E. points of the island, in which there appears to be good anchorage in from 7 to 14 fathoms.

Ras Shatt is the name given by Arab seamen to the W. point of this island, which the islanders call Ereekh-i-Fraont. In the N.E. monsoon, vessels can anchor in 5 or 6 fathoms, about 3 or 4 cables to the S.W. of this point, which has a deep bight on its S. side, and a well about 1 m. off. **Caution** is necessary to avoid the four or five scattered rocky reefs which lie off Ras Shatt; the outer one is nearly 2 m. to W. by S. of the cape. There are a few huts on the N.W. side of the islands, and wells in several places near the shore. The bank of soundings terminates about 2 m. S. of the island, beyond which distance there is no bottom at 140 fathoms.

KIBLEEA, or JIBLEEA ISLAND, lies between 12 and 13 m. E. of Helahneea, its E. end being in the meridian of Ras Sherbedah. It is not more than 3 or 4 m. in circumference, and consists of several remarkably regular lime-stone peaks on its N., its E., and S. parts, the highest of which is 550 ft. above the sea; with comparatively low land near its S.W. point, which projects considerably from the main body of the island.

A dangerous rock bears E. by S. 3 m. from the E. point of the island; it dries at L. W. spring-tides, and has deep water close to it on all sides. There is a channel between it and Kibleea Island, with depths in it varying from 8 to 15 fathoms. There is also a rock above water called the **Well Rock**, off the S.W. point, from which it bears S.S.W. distant $\frac{1}{2}$ m. Another, called **Four-peaked Rock**, so named from its outline, elevated about 100 ft. above sea, stands at $\frac{3}{4}$ m. to W.N.W. of the N. point of Kibleea; this rock has a ledge extending $\frac{1}{2}$ m. to the N.W. of it. The edge of the bank is between 1 and 2 m. S. of the island.

KIRZAWET, formerly called Ghurzoud, or Rodonda Island, the smallest of the group, is situated within the others, and bears N.E. by E. 6 m. from Ras Helahneea. It is not above a mile in circumference, but its conical peak is 230 ft. high. There are two rocks above water close to its E. point, and two sunken ones on its N.W. side, the soundings being deep all round it.

The bank of soundings in Kooria Mooria Bay, commencing at Ras Hasek, on the W., its edge curving a little to the N., and then continuing in a direction due E., passes within a mile or two of the Kooria Mooria Islands, all of which, except Kirzawet, are situated near the edge of the bank. The soundings in the central part of the bay are regular, varying from 30 to 40 fathoms, decreasing towards the shores and the islands. The bay is somewhat shoaler off its W. than its N. shore, averaging from 18 to 30 fathoms, 2 m. from the land. The quality of the bottom is in general sand and shells, or sand and coral, but occasionally rocky near Ras Gurwao and the islands.

Passages into the Bay. The W. passage into the bay between Cape Hasek and Haski Island is 15 m. wide, apparently requiring no caution, except when within a mile of Haski, where there is a rock which dries at L. W., as already described. The passage between Haski and Soda is 10 m. wide, the depths in the centre varying from 40 to 60 fathoms. The rocky bank, extending about a mile to the W. of Soda, appears to be the only danger. The entire width of the passage between Soda and Helahneea Islands is about 4 m., but the rocks off the W. end of Helahneea, reduce it to half that width. In 1820 or 1821, an English ship is said to have been wrecked in the night, when attempting to make this passage. There are from 12 to 20 fathoms in the clear passage; and the E. side of Soda, though rocky, may apparently be safely approached to within $\frac{1}{4}$ m.

The passage between Helahneea and Kibleea Islands is about 12 m. wide, with from 40 to 46 fathoms in the centre. It appears perfectly free from danger, except when near Kibleea, when the ledge, above noticed, off the Four-peaked Rock on its N.W. side, must be avoided. Kirzawet Island is situated about 6 m. inside this passage, and may apparently be passed with safety on either side within less than a mile.

In passing to the E. of Kibleea Island, the dangerous rock lying 3 m. off it must be avoided, the passage between it and the island appears quite clear, with depths from 10 to 16 fathoms. There are 130 and 170 fathoms of water $2\frac{1}{2}$ m. E. of the rock.

Tides. The flood-tide on the N. side of the islands runs to the W., and to the E. on their S. side. It is H. W. on F. and C. at 8 h. 20 m. Rise $6\frac{1}{2}$ ft. Variation, 1° W.

Currents. From Ras Furtak to Ras Noos, the currents often run against the wind during the N.E. monsoon; but, amongst the Kooria Mooria Islands, they are very fluctuating, and frequently set to the N.W., into the bay, rendering it unpleasant if becalmed close to these islands; it is, therefore, preferable to pass outside of them, unless when land and sea-breezes prevail near the coast, by which a ship may make progress against the monsoon, keeping near the land.

DESCRIPTION OF COAST (continued from page 207). The coast, from Ras Sherbedah, trends nearly straight N.E. to Ras Saukirah for 28 m., a noble length of lime-stone cliffs, about 600 ft. high, quite steep to the water's edge, and with a table-top. It is bold to approach, having 20 fathoms water close to the cliffs, and no off-lying dangers, although it was formerly stated that "Ships ought to be attentive to the lead in approaching Cape Saugra, as reefs project from the shore near it."

The land about Ras Gurwao is white and level, like the North Foreland (but more lofty,) and destitute of any distinguishing marks; but to the N. of Cape Saugra, for about 7 leagues, the land becomes higher; from the latter cape the coast turns sharp round to the N., and forms an extensive bay. Between these capes there are soundings of 40 and 30 fathoms, within 2 or 3 m. off the shore; but farther out, with Cape Saugra N.N.W. about 4 leagues, and Ras Gurwao W. $\frac{1}{2}$ N., there are 20 fathoms rocky bottom.

RAS SAUKIRAH, in lat. $18^{\circ} 8' N.$, lon. $56^{\circ} 35' E.$, is a prominent bluff cape, 622 ft. above the sea, forming the S.W. extreme of Gubet Saukirah, and the N.E. brow of the tabular lime-stone cliffs which extend to Ras Sherbedah, the whole line of which, when the sun shines upon it, has the appearance of clay cliffs. In standing toward the shore to the N., do not run far into the bay, where the water is shoal, only 10 fathoms when the cape bears about S.W.; but with proper attention, the lead will give sufficient warning, by showing a gradual decrease of depth.

Soundings. At 25 m. to the E. by S. from Ras Saukirah there is a coral bank, with from 21 to 27 fathoms; at 10 m. to the E. of it, the 100-fathoms line runs to the N.E., and in a S.W. direction nearly straight to the S.E. island of the Kooria Mooria group.

SAUKIRAH, or SAUGRA BAY is very extensive, being comprehended between Ras Saugra and Ras Madraka, 88 m. to the N.E. The W. coast of this great bay is low and apparently shallow, trending N. by E. from Cape Saugra about 35 m., and then E. by N. and E. for 20 leagues. This

immense bay seems to have no dangers of which the lead will not give sufficient warning. Arab pilots say it might be coasted in any depth from 4 or 5 fathoms and upwards. The bay was crossed in 9 fathoms, and its shores could not be seen in the bight from aloft; nor could there be seen the slightest appearance of vegetation or animation on any part of the shore, except at Cape Madraka, where there were a few huts and people. The surveyors found the shore all low and sandy throughout, thinly sprinkled with mangrove bushes. About 7 to 9 m. from the coast-line, there is a range of moderately-elevated tabular hills. During the N.E. monsoon, there is always a heavy swell and a high surf along the beach. The shoal spit, at 25 m. to the N.N.E. of Ras Saukirah, and called **Rejjat-ul-Jazir** (from the rippings over it,) has $1\frac{1}{2}$ fathoms at its outer edge; but, as this is within the general 5-fathoms line, it can scarcely be called a danger.

Bunder Jezirat is a small bay with a sandy beach, about 1 m. to the S.W. of Tagiyat Abak, and to the E. of Ras Khashaim, which is a dark bluff, and slightly-projecting point, about 8 m. to the S.W. by W. from Ras Madraka. Bunder Jezirat is the frequent resort of Arab boats from the N., to procure sharks' fins and tails; which a few poor fishermen of the Jenebeh tribe collect along the shores of Gubet Saukirah. This bay, the bottom of which is mud and sand, shelters in the N.E. monsoon; but, if the wind should shift to S.S.W., and blow strong, as it does sometimes towards the latter part of the N.E. monsoon, a vessel should run round to the N. side of Cape Madraka.

RAS MADRAKA, called also by Arabs **Ras-el-Jezirat**, and by former navigators **Cape Isolette**, in lat. $19^{\circ} 0\frac{1}{2}'$ N., lon. $57^{\circ} 51'$ E., is high, and may be seen 15 or 16 leagues in clear weather, appearing like an island, hence its names of Jezirat and Isolette. To the W. of it there is some double table-land, about 2 or 3 m. in length; here the soundings are regular, 9 or 10 fathoms close in-shore. The high part of the cape has on its summit a remarkable rock, called Tagiyat Abak (Abak's Hat,) 333 ft. above the sea, resembling a building when viewed at a considerable distance, and when near, a low point terminating in a small rock is seen projecting 5 m. from the cape to the N.E.; this is generally called Low Point, or Ras-el-Jezirat (from the rocky island off it,) from which the coast, that had an E. direction on the W. side of the cape, now turns sharp round to N. by W.

Ras Murkas is a point of land 480 ft. high, in lat. $19^{\circ} 10'$ N., lon. $57^{\circ} 48'$ E., and 4 leagues N. by W. from Ras Madraka; the whole of this headland is composed of black volcanic peaks, with tabular hills in the back-ground, averaging 450 ft. in height above the sea. At 5 leagues farther N. is a low point called **Ras-el-Awani**; and thence at $4\frac{1}{2}$ leagues to the N. by W. stands **Ras Kuerat**, as far as which point the coast appears clear, but outside are the San Carlos shoals, which render the passage inside Maseera difficult and dangerous. When a ship is 3 or 4 leagues to the N. of Low Point, the coast should not be approached nearer than from 12 to 18 m., on account of many dangerous shoals extending far out, from hence to the Island of Maseera.

GULF OF MASEERA. Ships ought to avoid this Gulf between Ras Madraka and Maseera Island, on account of its dangers, for it would be imprudent to run for the island in the S.W. monsoon when blowing strong, or at any other time when the weather is not clear, lest they should be set into the Gulf by the uncertain currents which at times prevail. This was experienced by the *Royal Admiral*, Captain D. Simmons, bound from the Strait of Sunda during the S.W. monsoon, which ship passed through between the island and the main, and was nearly lost; and many ships, in early times, have got into the Gulf of Maseera, when bound to the Persian Gulf.

The Gulf of Maseera is an extensive and deep bight or bay between Ras-el-Jezirat and Maseerah Island. The whole coast of the Gulf is very desolate, and thinly inhabited by small parties of the Jenebeh tribe, who subsist solely on fish. The Gulf should be avoided by ships passing up or down the coast, owing to the numerous dangerous coral patches and banks which exist within its limits, to be described hereafter. It has been generally supposed by navigators that there is a strong indraught or current setting into the Gulf, but during the survey by Commander A. Grieve, of the Indian Navy, in the *Palinurus*, no current was found to exist, except close in-shore. The tides in the vicinity of the banks set regularly N.N.W. and S.S.E. at the rate of 1 to $1\frac{1}{2}$ m. per hour, which would not be felt by vessels passing up or down the coast. It would be advisable, however, for passing vessels to keep well clear of the banks, for currents may exist at certain periods which were not observed during the survey, executed during the N.E. monsoon. It is very certain that several vessels have been set into the Gulf and nearly lost, but most probably owing to want of due attention to the lead, not to a set of current. As there is ample room for soundings being taken between the outermost shallow banks and the edge of the bank of soundings, between which there is a distance of 16 m., common attention to the lead will prevent any vessel running into danger, and certainly such a disaster as befel the U.S. ship *Peacock* would be avoided. This vessel ran aground off Ras Zaiwari, to the E. of Gubet Hasheesh in Sept., 1835, and must have run over at least 40 m. of soundings before she struck.

The Gulf of Maseerah should certainly be *always* avoided, unless in cases of extreme necessity, as one of the most dangerous parts of the coast of Arabia. During strong winds there is always a heavy swell rolling in, and on many parts of the numerous banks the sea breaks heavily, which, in foggy or hazy weather, would render it difficult for a vessel to work out of danger after once getting into it.

Shab Kudoon, or San Carlos Banks. The dangerous portions of these shoals, lying from 13 m. to 25 m. to the N.E. by N. of Ras Murkas, consist of four or five separate reefs and sunken patches, with from 4 to 9 fathoms on them. The nearest patch bears E.S.E. 5 m. from Ras-el-Awani, and extends in the same bearing for 4 m.; the original *San Carlos* patch is about 5 m. to the N.E. of that. Captain Smith, with the convoy of store-ships, in working along the coast to the N., got on the S. part of these shoals, where they had great over-falls and shoal water, on some of the rocky patches. On one of these, the *San Carlos* ship had $3\frac{1}{2}$ and 4 fathoms, rock, with a point of land like the extremity of an island, Ras Kuerat, bearing N.W. 6 leagues; Ras-el-Awani bearing W. about 4 leagues; and Cape Madraka S.S.W., then in lat. $19^{\circ} 26' N$.

Shab-bu-Saifah Bank is another large shoal, with not less than 6 fathoms, about 7 or 8 leagues to the N.N.E. of Shab Kudoon; having its N. edge in lat. $20^{\circ} N.$, and its E. side in lon. $58^{\circ} 20' E.$; when off the S. part of this Bank, the mast-head look-out can see Jezirat Hamar (to the W.S.W.) and Jebel Sawir, at the S. end of Maseera Island (to N.E. by E.) It is a safe rule for a vessel not to shoal her water under 20 fathoms, when passing between Ras Madraka and Maseera Island. If wishing to enter the Gulf of Maseera, you may safely run in for Jezirat Hamar, on any bearing between W. and N.W. by W.

Jezirat Hamar-el-Nafoor, in lat. $19^{\circ} 48' N.$, lon. $57^{\circ} 48' E.$, is a white, rocky, lime-stone islet, only 3 or 4 cables across, but 320 ft. high, and visible about 20 m. from the deck of a large ship. Myriads of wild fowl frequent it and cover it with *guano*. Close to it, both on the E and the W. sides, there are some sunken rocks. It bears from Ras Kuerat N.E. by N. $9\frac{1}{2}$ m., and is 3 m. off nearest land, the low rocky point of **Serair**, on an E. by S. bearing. The low, sandy point, with village and date-grove of **Ras Sidree**, lies 5 m. to N. by W. of this islet.

Ras Nakhrat, a bold, bluff point, 365 ft. above sea, stands about 11 m. to the N. of Jezirat Hamar; and 7 m. above Sidree, there is a steeper bluff (465 ft.) shown mid-way on the chart, but without a name. Above Nakhrat the coast runs on nearly straight, and all sandy, to N. $\frac{1}{2}$ E., for 11 m. to Ras Surab; a range of hills, from 700 to 800 ft. high, rises abruptly at the back of this narrow, sandy shore.

Water. Fresh water is procurable at Surab; the fishermen are always willing to carry it off to a vessel at a reasonable charge. When running into this place, remember that the Shab-bu-Saifah and other shoals encumber the gulf to the S.E. of Surab.

Shab Ghabat Reef is a dangerous patch of breakers, $\frac{1}{2}$ m. long N. and S., but shoal water makes it 1 league in length; its centre is 9 m. to the E. by N. of Ras Surab; and from it Ras Mintot bears N., distant 8 m. A rocky bank, with $2\frac{1}{2}$ fathoms, lies 3 m. to the W. of Ghabat Reef.

Ras Mintot, at 13 m. to the N.E. of Ras Surab, is a low, broad, sandy point, separating Gubet Surab from Gubet Mintot. A rocky spit runs off the S. point of the cape for 5 m. to the S. by W., where 3 fathoms is found. The fair channel between this and Shab Ghabat is only 2 m. broad, with depths of 6 and 8 fathoms. **Jebel (or Karn) Shabatain**, a conspicuous peaked hill, 483 ft. above sea, standing 8 m. to W. of Ras Mintot, forms an excellent mark for the Shab Ghabat, from which the peak bears N.W.; but the chart is the best guide. **Ras Ahbana**, at 9 m. to N.E. of Mintot, is a low, rocky, projecting point, with a range of hills rising from it towards the W.; it forms the W. extreme of Gubet Hasheesh, the bottom of the Gulf of Maseera.

GUBET HASHEESH is a shallow bay, 7 m. wide by 12 m. in depth; with three islands in it. Jezirat Rahk and J. Mahot are near its N. part where it dries at L. W., and from the latter it dries out towards the S. to Jezirat Ahb, a low, rocky islet, which is nearly 6 m. to E.N.E. of Ras Ahbana; large vessels may anchor mid-way between these in 6 or 7 fathoms, muddy bottom; small vessels may go further in, to 4 fathoms, about mid-way between Ahb Islet and Ras Zakr, a point of the hills situated 4 m. to the N. of Ras Ahbana.

Supplies of good sheep, fire-wood, and fresh water may be procured at the village on Mahot Island to the N.E. of the last-named anchorage. This contains about 300 inhabitants of the Jenelch tribe.

Shab Arzait is a patch of rocks, covered at H. W., bearing about E.S.E., and a little over $1\frac{1}{2}$ m. from Ras Ahbana. The channel between them, having 5 to 7 fathoms, is nearly 1 m. broad, the deepest water being near to the shoal. But there is a rocky bank, with 3 fathoms only, at 2 m. to the S.W. of Shab Arzait; vessels can pass between these, by keeping the pyramid hill (120 ft. high, 1 m. to N. of Ras Ahbana,) on a N.W. by N. bearing.

Ras Shijhrait, the E. point of Gubet Hasheesh, is a low, sandy point, with a small, rocky islet, which bears E.S.E., and is 7 m. from Ras Ahbana. The shoalest water is on this E. side of the Gubet, and it runs off from Shijhrait to the S. by E. for 10 m., where 3 and 4 fathoms are found, then rather abruptly dropping off into 12 fathoms.

Tides. It is H. W. on F. and C. at Gubet Hasheesh entrance at 10 h.; springs rise 10 ft. Flood sets to N.N.W.; ebb to S.S.E., about 1 m. per hour.

Fogs and Winds. Thick fogs are prevalent in the vicinity of Gubet Hasheesh and the Gulf of Maseera during the N.E. monsoon, which are borne down with great rapidity by sudden breezes from the N. The Belat winds are felt here from mid-Dec to mid-March; they blow from N. and N.N.W., lasting from 1 to 3, and even 7 days. Their approach is indicated on the previous evening by a faint, hazy arch over the land, or by the wind veering and coming from land-ward, sometimes in sudden gusts, early in the night. They nearly always set in between midnight and 4 h. a.m., commencing with a light breeze, and increasing to a moderate gale in about an hour; blowing hardest between 9 h. p.m. and 9 h. a.m., and they usually cease about noon, as suddenly as they commenced. Close in-shore they are dangerous, as during the night they sometimes die away to a calm, which lasts an hour or so, then sudden gusts succeed each other for several hours. These gusts give no warning, except a rushing noise over the water at their immediate approach. Off shore, these winds raise a high sea; they are frequently succeeded by strong S.E. winds. About Maseera, S.E. winds are more prevalent than any other in Feb. and March. Fresh S. breezes, of 2 or 3 days' duration, are experienced occasionally in the Gulf of Maseera. From mid-March to end of April, the winds are light and variable along the whole coast; land and sea-breezes are felt in-shore. Then about the Gulf of Maseera and towards Ras-el-Had, N.E. winds become lighter, and S.E. and S.W. winds more frequent, till the S.W. monsoon sets in after mid-May.

BAR-EL-HAKMAN is the peninsular promontory between Gubet Hasheesh and Maseera Island. It is very low, sandy, and covered with bushes for many miles. At 6 m. to the S.E. of Ras Shijhrait, lies **Ras Zaiwari**, its S.W. point, and immediately at the back of this, and to the E., an extensive salt-water lagoon, called Khor Melh. **Ras Mashu**, the S.E. point of Bar-el-Hakman, lies 10 m. to the E. of Ras Zaiwari, and forms the W. boundary of the S. entrance to Maseera Channel.

Kinasat Hakman is the name given to the extensive shore-reef which begins on the E. side of Gubet Hasheesh by Ras Shijhrait; thence stretching off to the S., extending 6 m. to the S.W. of Khor Melh, about 4 or 5 m. to the S. of Ras Mashu (but shoal water of 5 fathoms extends fully 7 m. to the S. by W. of this cape,) but only 1 m. to the E. of the cape. It consists of dangerous coral patches, some dry at L. W. The low land of Bar-el-Hakman is only just visible from the extreme edge of foul ground, but no part of Maseera Island can thence be seen. The N. part of Shab-bu-Saifeh Shoal lies about 12 m. to the S. by W. of this shore-reef. The detached shoal (9 fathoms.) which lies 9 m. to the N.W. of Bu-Saifeh, bears S.W. by S., nearly 20 m. distant from Khor Melh.

The Coast-line, above Ras Mashu, trends to the N.E. by N. and N.E. for 30 m. to **Ras Shanna**, a low, sandy point, in lat. $20^{\circ} 45' N.$, lon. $58^{\circ} 44' E.$, right abreast of the N. point of Maseera Island. The low and wooded island called Jezirat Mawal, lies 1 m. off shore, and at 3 m. to S.W. of the cape. An extensive reef, dry at L. W., projects from Ras Shanna for 4 m. to the E.S.E.; this is named **Bayat**, or **Rejiat Dimnah**, its outer edge passes about 3 m. to the S. of Mawal Islet, and thence about half-way to Ras Mashu. But shoal water over a sand-bank, with $1\frac{1}{2}$ or 2 fathoms, extends down the shore-side of the entire Maseera Channel, commencing from the E. point of Bayat Dimnah, and thence reaching to the Oyster Islets, which are about 8 m. to the E. of Ras Mashu, and a mile or two off Maseera Island.

Maseera Channel may be entered by large ships from the S.; but from the N., by small vessels only, as the greatest depth of water is only 3 fathoms there at L. W., abreast of Ras Half, the inner N. point of Maseera. Numerous blind channels exist thereabouts.

MASEERA, or MASIRAH ISLAND, is $34\frac{1}{2}$ m. long by 9 m. in breadth at its broadest part, containing nearly 200 square miles of surface, and lies N.N.E. $\frac{1}{2}$ E., and S.S.W. $\frac{1}{2}$ W. It is distant from the main land from 9 to 11 m.; and between them there are several islets, and numerous shallow banks and rocky patches, leaving only narrow navigable channels. At its S. extreme the island narrows to a sharp point, called Ras Abu-Rasas. The N. extreme is 3 m. broad, and rather of a convex form, having a hill on either extremity. The E. and W. coasts are irregular, forming points with small bays between. The soundings on the E. side of the island are irregular as regards distance from the shore, but increase gradually to seaward. There are several small shallow patches at a short distance from the shore. The bank of soundings at the S. extreme extends 10 m. S. and 8 m. E., and at the N. extreme 18 m. to the E.

The Island is quite barren and sterile, and produces no vegetation beyond two or three date

groves and a few pumpkins. There are a few wild animals:—gazelles, hyænas, jackals, and, it is said, wild asses. Copper ore, of a poor quality, exists near Jebel Sawir and Ras-el-Jezirat; at the former spot, remains of smelting furnaces are still extant, said to have been used by the Persians many years ago.

The population of Maseera island amounts to 600 souls, of the Jenebeh tribe, all miserably poor, subsisting chiefly on fish; rice or other grain being beyond their means. They possess no cattle. Fish is very plentiful all round the island, of very excellent quality. Sharks abound, and are caught for their fins and tails, which are dried and exported to Muscat for the Chinese market. Turtles are also very numerous, and one kind affords very fair tortoise-shell, which the natives export.

The staple articles of the island are shark fins, dried shark and seer-fish, and *dibbal*, or the horn of the inedible turtle. A good set of shark fins will sell for four or five dollars at Muscat, and the horn of a large turtle, if of good quality, from ten to eighteen dollars. The inhabitants of Maseera have four large baghalahs, twenty large badans, and thirty fishing boats.

Turtles abound between Maseera and the main land, but more particularly in the neighbourhood of Gubet Hasheesh, where they are said almost to swarm. There are two kinds, the edible, probably the *Chelone mydas*, and the inedible, *C. imbricata*, or hawk's-bill turtle, both common to the Indian ocean. They grow to much about the same size; one of the former, for which two rupees were given, weighed 266 lbs. The latter, or inedible turtle, as it is termed, from being much less fleshy and much less fat, yields the turtle-shell of commerce. They are caught by being turned on the back when they come on shore at night to lay their eggs, or harpooned in shallow water with a barbed loose spear-head fixed to the end of a long bamboo. The spear-head catches in their back, and having a small rope attached to it, the turtle is thus pulled on board. The inedible turtle is much scarcer than the edible one. The shell is taken off the carapace by lighting a fire under the latter; the carapaces of both species are used by the Arab fishermen for fire-places in their boats.

Ambergris is also sometimes found on the shores of Maseera, as well as on the opposite coast. This coast abounds in the sperm whale, and several other species of cetacea, and of course with myriads of cuttle fish and cephalopods of all kinds, on which the former feed. It is stated by the Arab fishermen that sharks are so fond of ambergris, that wherever there is a piece floating—for it is very light, being resinous—it is almost sure to be surrounded by several sharks gnawing at it.

The climate of the island is generally healthy. Thermometer ranges in the N.E. monsoon from 68° to 78° Fahrenheit. Rain is very unusual, but, judging from the enormous water-courses visible in all parts of the island, it must fall heavily at times.

Aspect. The island is generally of a hilly aspect, but low in the centre and at the northern extreme. The hills, at their summits, form into clusters of small peaks, the greatest elevation being only 700 ft., and the average about 400 ft. Approaching the island from the N. or N.E., the most conspicuous hill is Jebel Madthrub, a rounded hill on the northern range, elevated 620 ft. above the level of the sea, standing amid a cluster of lesser hills, one of which is called Sharp peak, from its peculiar form. Nearly all the hills are of volcanic formation, except some table-land in the vicinity of Ras Yee. The island is barren and sterile, with the exception of two or three date-groves.

RAS ABU-RASAS, the S. point of the island, in lat. 20° 10' N., and lon. 58° 38' E., is a low, rocky, sharp point, having a conspicuous conical hill at 1½ m. to N.N.E. of it, called Alamtain by native navigators, and Jebel Saweer by the islanders.

Dangers. About ¾ m. to S.S.W. of the point is a small, dangerous patch of breakers, with 5 and 6 fathoms water between it and the point, called Shab Abu-Rasas. A coral shoal, with 4 and 6 ft. water over it, extends from these breakers 1½ m. to the W., called Shab Matrai. E. by S. from Shab Abu-Rasas, and distant 1½ and 2½ m., are other two shoal banks, the nearest having 2 fathoms water on it, and the other from 4 to 6 fathoms, with from 10 to 13 fathoms water between them. The sea frequently breaks on all these banks; the S. point of the island should, therefore, not be approached under a distance of 2 m.

The E. coast runs from Ras Abu-Rasas N.E. for a distance of 11 m. to Ras Kaida, forming small rocky points with sandy bays between, the hills rising abruptly from the beach in thick clusters. The shore is bold to approach, and no dangers exist till off Ras Kaida. There are 5 fathoms water within a mile of the shore, and the edge of the bank is from 6 to 4 m. distant. **Ras Dtharri** is a projecting rocky point, 6 m. to N.E. by E. of Ras Abu Rasas. **Ras Kaida**, 5 m. further to N.E., is a small, projecting, rocky point, which may be easily known by a black, double-peaked hill, rising close to it.

A Coral Bank, with 4 to 7 fathoms water over it, and 8 to 11 fathoms between it and the shore lies 1½ m. to E. from this point. This bank is very deceptive: when the sea is smooth

there is no indication of shoal water; but, on the slightest swell rising, the sea breaks heavily on it. Vessels should, therefore, particularly avoid anchoring on it, or on any of the shallow banks round the island. The depth of water on these banks is probably decreasing, as all are of coral formation.

The E. coast, from Ras Kaida to Ras Zafarnat, a distance of 17 m. in a N.E. by N. direction, forms a slight curve, with a low, rocky beach. The coast line is regular, only one small sandy point occurring between the capes. The shore is bold to approach, there being no danger. The bank of soundings extends 10 m. to the S.E. **Hakkan**, a small village, is situated in a date-grove close to beach, and 5 m. to N. from Ras Kaida. The island at this part is only 4 m. across, forming low, undulating hills. Fresh water is procurable at the village of Hakkan, also a few pumpkins. **Ras Zafarnat** is a rocky point (from which the hills rise abruptly towards Jebel Madthrub), and bears from Ras Yee S.W. by S. distant 2 m.

RAS YEE, or **JEE**, the E. point of the island, is a bluff point, formed by a ridge of hills from the centre of the island, of which Jebel Madthrub (4 m. to W.N.W. of Ras Yee) is the most elevated and conspicuous, being 620 ft. above the sea, and obtuse in form.

The soundings off this point are 15 fathoms, at 1 m. distant, and 22 to 25 fathoms at 2 m., the edge of the bank being 10 m. off shore. **Ras Yee** is in lat. $20^{\circ} 32' N.$, lon. $58^{\circ} 58' E.$

Ras-el-Jezirat is a rocky point $3\frac{1}{2}$ m. to the N.W. of Ras Yee, between which two points the shore is rocky, but free from danger. It derives its name from a small, sandy islet, lying close off it to the N. The cape is prominently marked by a small, black cove. From Ras-el-Jezirat the coast forms a slight curve or bay with Ras Jidoof, which bears from the former N. $\frac{1}{4}$ W., $7\frac{1}{2}$ m. In this bay is a rock just awash at L.W., $1\frac{1}{4}$ m. from the shore, bearing from Jidoof hill S. by E. $\frac{1}{2}$ E., and from Jebel Madthrub N.N.E. $\frac{1}{4}$ E.; close round the rock the depths are 3 and 4 fathoms. The other soundings in the bay are regular, there being 7 fathoms water 2 m. off shore, decreasing gradually towards it. The edge of the bank of soundings is about 18 m. to the E. of Ras Jidoof.

RAS JIDOOF, the N.E. extreme of the island, in lat. $20^{\circ} 42' N.$, and lon. $58^{\circ} 55' E.$, is a rocky point, having a hill of the same name rising immediately behind it. Off the point a rocky reef extends $\frac{1}{2}$ m., with shallow water on its edge; the point should, therefore, not be approached under 1 m. **Ras Half**, the N.W. point of the island, is a low, sandy point, to the S. of which, at a distance of $1\frac{1}{2}$ m., is a moderately-elevated black hill, bearing the same name. The coast between the two capes is slightly convex, and fronted by several patches of rocks, dry at L.W., extending from $\frac{1}{4}$ to $\frac{1}{2}$ m. from it.

Shoals. From N. by W. of Ras Half to N. by E. of Ras Jidoof, and distant from the shore from 3 to 5 m., are five shallow patches, with only $2\frac{1}{2}$ fathoms water over them, the soundings between them and the shore being from $3\frac{1}{2}$ to 4 fathoms, at L.W. of spring tides. The fair channel is between these shoals and Ras Half. From these shoals off the N. part of Maseera, a bank of foul ground extends to the main land, and as far to the N. as Ras Shebali, with soundings of from 2 to 4 fathoms on it, on which the sea rolls heavily during the N.E. monsoon, rendering the coast to the S. of Shebali unapproachable, except in small boats.

Coming from the N., to clear the foul ground extending from the main land, Jebel Jidoof should not be brought to bear to the S. of S.S.W. If running down the coast in pilot water (say 15 fathoms), you should suddenly shoal to 6 or 5 fathoms, to the N. of Maseera Island, and before its hills are seen, you will know that you are running into Maseera Channel, and must haul out at once to the E. and S.E. for a mile or two, to avoid the above shoals.

Kinasat Half is a shoal, partially dry at L.W., bearing W. $\frac{1}{2}$ S., distant $1\frac{1}{2}$ m. from Ras Half, with soundings between of from 3 to 7 fathoms. Between it and the great reef Bayat Dimnah (see page 212), the depth is $1\frac{1}{2}$ fathoms, sandy bottom.

The W. coast, from Ras Half, runs to the S.S.W. as far as Ras Shakaf, a distance of 9 m., forming a slight curve, the bank off which dries at L.W. to $\frac{1}{2}$ m. or $\frac{3}{4}$ m. from H.W. mark, and rocky, foul ground, extends off shore 1 to 2 m. From Ras Shakaf the coast turns more to the S. to the chief town, Ohm Rasas, a distance of $8\frac{1}{2}$ m., when it curves to the W. for 3 m., forming a bight of that depth. In this bight lies the low, sandy island, called Jezirat Shagha, which cannot be approached within $1\frac{1}{2}$ m., on account of a bank, which dries at L.W., and extends from it in all directions, meeting the S. shore of the bight, leaving a narrow channel between it and the shore, with depths of from 1 to 3 fathoms water. Close to the W. edge of this bank there are 6 fathoms water. **Danah** is a small village, situated close to the shore in a grove of date-trees, and 2 m. N.N.E. of Ras Shakaf. Good water may be obtained at the latter. Anchor 1 to $1\frac{1}{2}$ m. off shore in 4 to 5 fathoms water.

N. END OF MASEERA CHANNEL. Jezirat-ibn-Joaism is a small islet, lying $2\frac{1}{2}$ m. from the Maseera shore, and on the E. edge of the extensive shoal, Bayat-ibn-Joaism, which is $6\frac{1}{2}$ m.

long by 3 m. broad, and mostly dry at L.W., lying midway between Ras Shakaf and Bayat Dimnah. The N. edge of this shoal is $1\frac{1}{2}$ m. from Kinasat Half, with a channel between of 2 to 4 fathoms water. On either side of the shoal is a navigable channel, meeting at the S. extreme; the E. one (formed between the foul ground off Maseera and the shoal) being the narrowest, and only $\frac{1}{2}$ m. wide at its N. entrance; the W. channel, formed between the shoal and the extensive bank, Bayat Dimnah, is $1\frac{1}{2}$ to 3 m. in width. At $\frac{3}{4}$ m. to S. of Bayat-ibn-Jooaism, there is a small shoal patch of 2 fathoms water.

The depths in the E. channel are $2\frac{1}{2}$ fathoms at the N. entrance, to 4 and 5 fathoms at the S. part. In the W. channel the water is deeper, there being from 4 to 5 and 6 fathoms.

At the S. end of Bayat-ibn-Jooaism, the channels join and form into one, being bounded on the E. side by the rocky ground off Maseera, and on the W. by the bank of foul ground which extends from the main land, and terminates at Jezirat Sifah, which islet lies $2\frac{1}{2}$ m. to the N. of Ras Kalban, and is the most N. of the Oyster Islets. The depths of the channel are from 4 to 6, 7, and 8 fathoms, and the width from $1\frac{1}{2}$ to 2 m.

At 6 m. to the W. of Ohm-Rasas, and on the edge of the W. bank of the channel, there is a dangerous, **sunken rock**, with only 2 ft. water, called Hassar Walad Henal, which must be carefully avoided. From it Jebel Kairan bears S. $\frac{3}{4}$ E., and Jebel Safajj is in one with the S. point of Jezirat Shagha. The fair channel is thereby made less than 2 m. wide.

OHM-RASAS is the chief town of the island, and the residence of the Sheikh; its population, together with Safajj, a village contiguous to it, is about 300 souls, who carry on a trifling trade with Muskat. The town is protected in front by the low island, Jezirat Shaga, before mentioned, which cannot be approached within $1\frac{1}{2}$ m., on account of the shallow bank extending from it in all directions. A small creek runs in between the island and the shore, by which boats can get close up to the houses. From the islet, the opposite coast of the main land is not visible.

Tides. It is H.W. on F. and C. at the town of Ohm-Rasas at 10 h.; rise of springs 10 ft. The flood sets W. round the N. point of the island, and S.S.W. down the channel; round the S. point the flood sets W.N.W. and N.N.E. up the channel, meeting off the town. The ebb tide sets fair the contrary way to the flood. Velocity of tides varies from $1\frac{1}{2}$ to $2\frac{1}{2}$ m. per hour.

The coast, from the W. point of Ohm-Rasas Bay, runs S.S.W. $\frac{1}{2}$ W. to Ras Kalban, being rocky and irregular, forming small, projecting points, and fronted by a rocky bank, and some rocks above water, extending $\frac{3}{4}$ m. from the shore, and should not be approached under 1 m. **Ras Kalban** is a low, rocky point, with a sandy beach on either side of it, from whence the coast takes a turn to the S.

Jebel Safajj is a conical hill, close to the S. of the village of that name, with the remains of a fort on the summit. **Jebel Kairan**, or Saddle Hill, is a remarkable double-peaked hill, elevated 385 ft. above the sea, situated 1 m. from the beach, and nearly 4 m. N.E. from Ras Kalban.

OYSTER ISLETS. To the N.W. of Ras Kalban are three small, rocky islets, known as the Oyster Islets, from their being covered with that fish. Between the N. islet, or Jezirat Sifah, and the next (which bears S.W. by S. from it, distant 2 m.), are two patches of sunken rocks. The S. islet is named Ohm-Kads; it lies exactly 1 m. to W.N.W. of Ras Kalban.

Zanatiyat Rocks. S.W. by W. from Ras Kalban, and distant from 2 to $3\frac{1}{2}$ m., is a dangerous group of rocks, called Zanatiyat, with soundings close round them of from 5 to 7 fathoms.

The coast from Ras Kalban runs nearly S. to **Ras Abu-Rasas**, the S. point of the island; it is low and sandy, and forms several low, projecting points. Close to the shore, at $1\frac{1}{2}$ m. from the S. point, are two small islets, and $1\frac{1}{4}$ m. farther N. are three more islets, running in a direct line from the coast to the W., off which are some sunken rocks, extending altogether nearly $1\frac{1}{2}$ m. from the shore: the whole are collectively called Banat Marshid. Again, at $2\frac{1}{2}$ m. to the N., is a small, rocky patch, lying close to the shore. Kalban is a small village, situated on the shore, and distant $4\frac{1}{2}$ m. from the S. point of the island, and about 6 m. to the S. of Ras Kalban.

Shab Sanfar is a rocky shoal, just awash, bearing W. $\frac{3}{4}$ N. from Jebel Saweer, and distant from the shore $2\frac{1}{2}$ m. It is $\frac{3}{4}$ m. long, N. and S., by $\frac{1}{2}$ m. in breadth.

S. END OF MASEERA CHANNEL. The W. shore of Maseera Channel from Ras Mashu is low and rocky, with intermediate sandy patches, until within 11 m. of Jezirat Mawal, where the extensive reef, called Bayat Dimnah, commences: thence it is low and sandy as far as Ras Shanna.

Directions for sailing through Maseera Channel. Coming from the N.E., steer for Jidoof hill, taking care not to bring it to bear to the S. of S.S.W.; when within 1 m. of the point, haul to the W.S.W., to clear the shoal ground extending from it; then to S.W., keeping about $\frac{3}{4}$ m. off shore, and round Ras Half, at $\frac{1}{2}$ to $\frac{3}{4}$ m. distant. After passing Ras Half, steer S.W. by S., to cross over the shoalest ridge. On bringing the black hummock, Jebel Half, to bear E.N.E., the water will probably shoal to $2\frac{1}{2}$ fathoms, increasing again to 3 and 4 fathoms as the islet on the W. shoal,

Bayat-ibn-Jooaism, is approached, which may be passed at little more than $\frac{1}{2}$ m., the channel here being $\frac{1}{2}$ m. in breadth. Proceeding on the same course, the channel becomes much wider, and when off the village of Dauah, the shore may be approached to $\frac{1}{2}$ m. From Dauah, a course S.W. $\frac{1}{4}$ S. will lead clear abreast the town, 'Ohm-Rasas, off which a vessel may anchor in 5 to 6 fathoms, water, with the round tower bearing E.S.E. to E. by S., and distant $3\frac{1}{2}$ m., whilst Jezirat Shāgha lies $1\frac{1}{2}$ m. to the S.E.

If the weather is clear, the line of the shoals is generally well defined, and little danger or difficulty would be experienced, except to the N. of Jezirat-ibn Jooaism, where the greatest depth appears to be $2\frac{1}{2}$ fathoms, and the channel very narrow.

Another channel, much broader and deeper, leads to the N. and the W. of Bayat-ibn-Jooaism; but the E. channel, being the most direct, is perhaps the preferable one. To pass through the N.W. channel, proceed round Ras Half, as before directed, until the black hummock bears E. $\frac{1}{4}$ N.; keep it on that bearing until Jezirat-ibn-Jooaism is only $\frac{1}{4}$ point open to the right of Jebel Mad-thrub. Jebel Kairan, or Saddle Hill, will then bear S. by W., which, kept on that line of bearing, will lead down clear to the anchorage off the town, as before stated.

The channel abreast the town is 2 m. wide, increasing in width to the S.; the E. side is bounded by the bank of rocky ground, with some rocks above water, which extends from the shore of the island, and should not be approached under $\frac{1}{2}$ to 1 m. The opposite side of the channel is bounded by a sand-bank, with $1\frac{1}{2}$ to 2 fathoms water on it, and very steep-to. The soundings in the channel vary from 5 to 7 fathoms.

Proceeding to the S. from abreast the town, steer S.W. by S., and when the S. islet of the Oysters, Jezirat Ohm-Kads, is seen, keep it on that line of bearing until near, and pass it on either side, as most convenient, at $\frac{1}{2}$ m. to $\frac{1}{3}$ m.

After passing Jezirat Ohm-Kads, keep it bearing N.E. by E., to avoid the dangerous group of rocks, Zanatiyat, until Jebel Saweer bears S.E. by S., when a vessel will be clear of them, and may steer S., keeping a good look-out for Shāb Sanfar, a rock just awash, bearing from Jebel Saweer about W. by N., and nearly 4 m. to N.W. by W. from Ras Abu Rasas.

Entering the Channel from the S. In the S. entrance the soundings are from 7 to 9 fathoms, sand and coral, with occasional over-falls. Ras Abu-Rasas should not be rounded under a distance of 3 m., and a vessel should be 3 m. to the W. by S. of that S. point before standing to the N. by W. After Jebel Saweer bears E. by S., she may haul up for Ras Kalban N.N.E., to pass inside the Zanatiyat rocks; or outside of them, by steering N. by W., till Ohm-Kads bears N.E. by E., when she may steer for that islet, and pass it as before, on either side. After which the above directions reversed will serve to guide a vessel through.

The channel is decidedly very unsafe for general navigation, and the passage should never be attempted, except under the pressure of extreme necessity. The channels are very narrow in some places, and entirely destitute of good leading marks to guide a vessel through. The chief, or sheikh, of the island also has always displayed the greatest repugnance to the presence of European vessels in those waters; and any defenceless vessel falling into his hands would probably meet with anything but good treatment. The channel is little frequented by native vessels of more than 30 or 40 tons burthen.

THE COAST. Ras Shebali, on the main land, is a low, rocky point, with some bays on the N. side; the point bears from Ras Shanna N. by E. $\frac{1}{2}$ E. 13 m., the coast between being very low and sandy, with bushes. As before stated, a bank of foul ground, with from 2 to 4 fathoms water on it, extends from Ras Shebali to the island of Maseera, on which the sea rolls heavily during the N.E. monsoon. About a mile inland from the cape, is the village of Shebali, containing about 200 inhabitants of the Whebah tribe.

The Whebah have but few boats, and being very poor, are obliged to have recourse to the inflated sheepskin, called *Kirbeh* (vulg. *girib*). It is commonly used by the inhabitants of this coast from Ras Roos to the village of Hasek, in Kooria Mooraa Bay. But with the poor Whebah its use is seen in perfection. As soon as a shoal of fish is viewed from the heights by those who are watching for them, the fishers assemble, and seizing their skins and casting-nets, rush to the water's edge. Here the skin is quickly soaked and inflated, after which the hind and fore legs are tied together with a string. Thus prepared they step into the ring; and, slipping the skin up towards the lower part of the stomach, throw their casting-nets across the left shoulder, and wading into the water up to their necks, sit upon the string, which rests against the back part of their thighs; and thus they paddle away with hands to the place where the fish are. In this way as many as twenty at a time will enter the water and swim out to a distance of 2 m. When they have arrived among the fish, they throw their casting-nets, and gathering them up return to the shore with what they contain, having no means of securing the fish on the spot.

The coast from Ras Shebali runs N.E. 43 m. to Ras Jibsh. For 13 m. the land rises in cliffs of from 30 to 70 ft. elevation, with sandy spaces intervening; after which it presents an unvaried line of low sandy downs, without the slightest trace of vegetation or inhabitants. A heavy surf beats on the shore, rendering landing impracticable in ships' boats. The coast as far N. as Ras Jibsh is inhabited by the Beni Jenebeh tribe, who bear a generally bad character, it is therefore not safe to land. They are all *wreckers*, and consider everything that strands on this coast the property of the tribe to whom that part of the coast belongs. They are probably the worst characters on the coast.

The bank of soundings extends off shore 30 m. at Ras Shebali, decreasing to 13 m. off Ras Jibsh, the 100-fathoms line being at those distances. The soundings are regular, the 20-fathoms line being $3\frac{1}{2}$ m. off Jibsh, increasing its distance to the S. The shore may be safely approached in any part into 5 fathoms, water.

RAS JIBSH is a small, and slightly projecting sandy point, having immediately over it a hill about 100 ft. in height, nearly covered to the summit with white drift sand; three little dark peaks, of which the hill is composed, showing above the sand. On the centre peak are the remains of an old tower. On the S.W. slope of the hill near Ras Jibsh is a small village containing about 60 inhabitants. On the N. side of the point is a small bay, affording a good landing-place in S. winds, but much exposed to N.E. winds. In clear weather *Jebel Jahlan*, 3,900 ft. high, may be seen when off Ras Jibsh: in appearance it approximates to a tongue-form, the high bluff being towards the E.

The **COAST** from Ras Jibsh to Ras-el-Khabbeh, a distance of 53 m., trends in a general N.N.E. $\frac{1}{2}$ E. direction; it is all low and sandy, and of an uniform desolate appearance, with several small isolated hills near the coast, one of which, *Jebel Jiffan*, is of round form. The country bordering on the sea between Ras Jibsh and Ras-el-Hadd is styled *El-Sharkiya*, or the E. country, and forms no portion of the province of *Ohman*, which lies contiguous to it on the W. near the coast. It is entirely destitute of vegetation, but in the interior is diversified with extensive date-groves and running streams, with small patches of cultivation, chiefly jowari and cotton. The inhabitants of the coast between Ras Jibsh and Ras-el-Hadd, are of the Beni-bu-Ahli tribe, and are friendly to Europeans.

The bank of soundings decreases in width above Ras Jibsh, and at Ras-el-Khabbeh the 100-fathoms line is only 2 m. from the coast, and the 20-fathoms line 1 m. off, the lead therefore affords little guide. The soundings throughout are regular, and the coast may be approached in any part within a mile in safety.

El-Ashkhareh, or Lashkhareh, is a long straggling town and fort, 72 m. from Ras Jibsh, containing about 1,000 inhabitants of the Beni-bu-Ahli tribe, who have several boats. The country in the neighbourhood is a perfect desert, and affords no supplies, beyond a few goats and fowls. In Oct., 1820, a small British force was here defeated by the Arabs. *Jebel Seynah*, an oblong black hill, several hundred feet high, bears W.N.W., 6 m. from Lashkhareh, with a conical hill a short distance to the N.E. of it. When seen bearing W.N.W., it forms a saddle-hill, and is a good leading-mark for making the place.

Ras Gomeleh is a low sandy point, 17 m. S S.W. of Ras-al-Khabbeh, backed by a ridge of low hills, one of which, *Jebel Gomeleh*, is of conical form, not easily discernible from the N.E. **Ras Roos** is a low rocky point with a few sandy hillocks on it, bearing S.W., 3 m. from Ras-el-Khabbeh. Here is a village containing about 300 inhabitants, of the Beni-bu-Ahli tribe. In 1830, the *Oscar*, and in May, 1852, the *Centaur*, English merchant vessels, were wrecked a few miles S. of this cape. Both were plundered by the Bedouins, who consider any ship coming ashore upon their coast as their property. No one in these ships was injured; and a boat, belonging to the Beni Jenebeh, took the crew of the *Centaur* to Muscat.

Anchorage. The bay between the two points affords tolerable shelter from N. winds; and anchorage in 6 fathoms, with Ras-al-Khabbeh bearing N.E. by N., and *Jebel Jahlan* W.

From 2 to 4 m. to the S. of Ras Roos there is a coral bank, with from 7 to 10 fathoms water on it in over-falls.

Ras-al-Khabbeh is a low rocky point. Here the sandy shore terminates, and cliffs of from 60 to 100 ft. in height extend with but few short breaks to within 3 or 4 m. of Ras-el-Hadd. All this part of the coast is very bold, with no safe anchorage. When 20 m. below this point, the high mountains of *Kalhat* will be seen towering behind *Jebel Jahlan*, which conspicuous mountain is 20 m. inland, to the W. of Ras-el-Khabbeh, and elevated 3,900 ft. above the sea. At its S. slope are the chief towns of the Beni-bu-Hassein and Beni-bu-Ahli tribes. In clear weather this mountain may be seen at a distance of 60 m. *Jebel Kems*, a mountain at 20 m. to the W. by S. of Ras-el-Hadd, and 2,700 ft. above sea, is a rugged peak of dark colour, and is seen to the right of *Jebel Jahlan* when off Lashkhareh.

RAS-EL-JINEYZ, the E. point of Arabia, in lat. $22^{\circ} 26' N.$, and lon. $59^{\circ} 50' E.$, is a low cliff, the soundings off which are as deep as at Ras-el-Khabbeh, and there is a depth of 800 fathoms only 5 m. from the land. From it Ras-el-Khabbeh bears $S \frac{1}{4} W.$, 12 m., and Ras-el-Hadd, bears $N.$ by $W. \frac{3}{4} W.$, 7 m.

Jebel Safanat, called also Jebel Fanoos by Arab navigators, are two remarkable hills close together, of equal height, elevated 850 ft. above sea, close to the shore, at Ras-el-Jineyz. They are quoin-shaped, with the steep side to the $W.$, and stand on a table-land 100 ft. in height. Being isolated and close to the E. point of Arabia, they are very good land-marks for that cape; and when the comparatively low land thereabouts is below the horizon, they appear from the $N.$ or $S.$ like an island with a deep notch in it. They are visible above 30 m.

RAS-EL-HADD, or RAS-AL-HED. The low cliffs of Ras-el-Jineyz sink into a low sandy shore 3 m. below the N.E. cape of Arabia, Ras-el-Hadd, which is a very low sandy point, with a few date-trees; the little town of El-Hadd, lying 1 m. S.W. of it. The town consisted, in 1848, of two round towers and a number of mat-huts, and contained about 700 of the Beni Ghazal tribe. It is subject to the Imam of Maskat. The authority of that prince, S. of this point, is quite nominal. Indifferent water may be had abreast a small clump of date-trees at 2 m. to the $S.$; and bullocks and goats may be had at the town. To the $N.$ of this cape no soundings are to be obtained more than $\frac{1}{2}$ m. from the shore; to the $E.$ the bank of soundings extends about 3 m., and the 20-fathoms line is 1 m. off shore. This bank is famous for large fish.

The best anchorage in the N.E. monsoon, is with the town of El-Hadd bearing $W.$ in 8 to 10 fathoms, water, coral bottom, $\frac{1}{2}$ to $\frac{3}{4}$ m. off shore. This is exposed to all winds from the sea. The people of the town are civil, as is the case at all the towns $N.$ of this. In the S.W. monsoon, a vessel might anchor off El-Hejreh or Jerameh.

Currents round the cape are strong and variable, depending on the variable winds.

Challenger Bank. On Aug. 9th, 1880, at 1.30 p.m., discoloured water, with rippings, was observed from H.M.S. *Challenger*, in $22^{\circ} 29' N.$, and about 40 m. $E.$ from Ras-el-Hadd. On sounding, two casts of 13 fathoms water were obtained, and soon after no ground at 65 fathoms, the sea having resumed its natural colour. The bank appeared 3 m. long by $\frac{1}{2}$ m. broad. Having been observed so shortly after noon, the position given is probably correct. The *Palinurus*, while surveying the coast, made diligent search for it, but without success.

The Coast above Ras-el-Hadd changes its direction to an average of $W. \frac{3}{4} N.$ for 15 m., to the town of Soor, or Sur. From Soor it sweeps gently round to the N.N.W., to Ras-as-Shijr, the mountains. Jebel Kalhat, descending precipitously to the sea, with very deep water close to the shore. Cliffs recommence 2 m. $W.$ of the cape, and extend uninterruptedly for 6 m. Ras Sherh is a slightly projecting point of the cliff, 8 m. $W.$ by $N.$ of Ras-el-Hadd; from this point to Soor, there is a ridge of low broken hills with patches of cliff. There is no danger on the coast between Ras-el-Hadd and Ras-as-Shijr. Between Ras-el-Hadd and Soor, the 100-fathoms line is at an average distance of 3 m. from the shore; and, from a few miles above that place, to 10 m. $N.$ of Ras-as-Shijr, the bank of soundings is only $\frac{1}{4}$ m. broad.

Khor-el-Hejreh is a small and shallow inlet used by small fishing-boats. Its entrance, between two low cliffs, is 2 m. $W.$ by $S.$ of Ras-el-Hadd. There are 2 fathoms, water, at the entrance, shoaling gradually as the basin is approached. The inner half is dry at L. W. Its direction is $S.$ for $\frac{1}{2}$ m., then $E.$ 1 m., reaching close to the back of El-Hadd Village. At the E. extremity of this khor are a number of ruins, and among them a large square building of modern construction, forsaken, and also in ruins. There is also a little jetty or wharf at the E. end, which served as a landing-place when (according to tradition) the khor was much deeper than it is at present. The ruins do not appear to be the remains of buildings of any consequence, although they are said to be those of a very large town.

KHOR JERAMEH, or BUNDER JERAHMI, the entrance to which is $1\frac{1}{2}$ m. to the $W.$ of the last, is a fine basin with a tortuous entrance 1 m. long and only 150 yards broad, between cliffs 60 ft. high. The inside basin, or **Refuge Harbour**, is $2\frac{1}{4}$ m. in length, in a N.W. and S.E. direction, and 1 m. in breadth. The depths are 7 to 9 fathoms, with a muddy bottom, in the entrance channel, and $3\frac{1}{2}$ to $4\frac{1}{2}$ fathoms, sandy bottom, just within it; shoaling quickly to 2 and 1 fathom as the $S.$ shore is approached, which is low with a mangrove-swamp, and an isolated black hill close to it. It is used by native vessels as a harbour of refuge only, there being no village on its shore, nor is any water procurable. A town once existed on the S.W. side of the khor, but it is said to have been abandoned for want of water. At the end of Oct., 1846, the *Palinurus* found thirty-five baghalahs waiting here till the autumnal squalls (called Leheymah by the Arabs) were past. **Bunder Jerahmei** might prove a valuable refuge to a vessel disabled in a N.-Easter, if she was going $S.$, but could not weather Ras-el-Hadd.

Tides. It is H. W. at F. and C. at 9 h. 30 m.; springs rise 10 ft. Velocity of tides in the narrows, 2 m. per hour.

Directions. This natural harbour* may be found useful to a steamer requiring smooth water to repair damages. Entering this place with a Northerly wind, keep close to the E. shore, till past the small shoal, of 2 fathoms at L. W., on the W. side at $\frac{1}{2}$ m. within the entrance; then keep in mid-channel, and pass on either side of a small island dividing the passage at the mouth of the basin—the E. channel is preferable, being more direct—and anchor as soon as past the island. Flaws of wind are of course prevalent in the entrance, vessels should therefore be prepared with a stern anchor in case of accident.

SOOR, or SUR, is a large town, or rather two towns situated on a khor or back-water; there are also two forts surrounded by huts to the W. of it, all included under the general denomination of Soor. The total number of inhabitants may be 10,000. The town on the E. bank, called Hejah, is inhabited by people of the Beni-bu-Ahli tribe; the other, Uhm Kreimtain, by the Beni Jenebeh, who are often at feud with each other. The S.W. fort, El-Heis, the larger of the two, is for the protection of the wells; and the Sultan of Muscat maintains a garrison there.

When on with Soor Creek, Jebel Kems bears S.W. by S., this may be useful as a guide to find the place. Just N. of Soor, the bank of soundings is only 1 m. wide.

Cattle and vegetables might be obtained here, but it is doubtful if any water could be spared for a ship. A large trade is carried on between this place and India, Zanzibar, Berberah, and the Persian Gulf in baghalahs, and numberless fishing-boats which frequent the whole coast of Arabia, besides several fishing-boats which belong to the place. The trade is principally confined to imports, the only exports being dried dates and salted fish. They manufacture a coarse-checked cloth for turbans, &c. Many Banyans, natives of Kutch, are settled here, and the trade is very much in their hands. The Soor people are bold sailors.

Anchorage. A ship should anchor off the town in 10 to 15 fathoms water, sandy bottom; it is quite an open roadstead, and has not been surveyed. The khor is extensive, but narrow at the entrance, with a bar having only 3 ft. on it at L. W.; within are 2 or 3 fathoms water. Little can be seen of Soor town from the sea, the two forts are on higher ground, and first seen.

The Coast above Soor goes on curving gradually round to N.W. and N.N.W., for more than 30 m., till at Ras-es-Shijr it runs nearly N.; from this point it turns back to N.W. Soundings are not obtainable at more than $\frac{1}{2}$ m. off shore along this coast. The precipitous mountains, Jebel Kalhat and Jebel Beni Jabar, come close down to the sea. These mountains are in two ranges, one behind the other; both sinking into the plain together just above Soor; they have a regular outline. When viewed at a great distance from the N., the S. extreme of these mountains has been mistaken by strangers for Ras-el-Hadd. The coast-range averages 4,500 ft.; the back-range is higher, probably 6,000 ft. Above Ras-es Shijr they recede from the coast for 20 m. in a W. by N. direction, ending at the **Wadi Heil-el-Ghaf**, called by seamen, the Devil's Gap. To the N. and W. of this Gap there stands another range, about 6,000 ft. high, called Jebel Fatlah (by some, Jebel-ez-Zahtri). These ranges are sometimes visible 80 m. When the Wadi Heil-el-Ghaf bears W.S.W., it is quite open, and forms a remarkable land-mark; it is discernible on any bearing between W. and S.W. by S. Sometimes, when the mountain tops on both sides are covered with a streak of dark clouds, forming a sort of bridge over the Gap, the sky is seen clear through underneath, and the sunset scene is remarkable.

Winds. Squalls or heavy gusts blow at times out of this valley in the winter months, Jan., Feb., and March; they will lay a vessel on her beam-ends, if unprepared, but generally they give sufficient warning. The S.W. monsoon is not felt along this coast to N. of Ras-el-Hadd; at that time, calms and light winds prevail, sometimes light S.E. winds, with a drain of current to N.

In the winter, strong breezes are also experienced from N.E., called Nashi: they are attended by dark cloudy weather, and generally rain. The barometer stands high during these breezes, just as with similar land-winds on the Sind and Cutch coasts. These are felt more on the Batneh coast, which is then a dead lee-shore, and without shelter. A dense haze (from the dust off the Mekran coast) sometimes precedes these N.-Easters. They blow frequently for three days, or even five days at a time, but sometimes last only for a single day.

Ras Abou Daood, or Cape Keriyat (Curiate of the Portuguese,) in lat. $23^{\circ} 19' N.$, lon. $58^{\circ} 56' E.$, is a steep rocky point, with a rocky islet (100 ft. high,) at $1\frac{1}{2}$ cables to the N., and a channel between it and the cape, with 3 and 4 fathoms. When Cape Keriya bears about S.S.W., it is nearly in one with the Devil's Gap, which is not conspicuous at this bearing; and when the cape bears S., the gap is shut in behind it. The Devil's Gap is in lat. $23^{\circ} 5' N.$, distant about

* See Admiralty Chart, No. 10 c., N.E. Coast of Arabia, with Mascera Island.

11 leagues from Muscat, being an excellent mark for knowing the land. Under this gap is said to lie the anchorage of Keriya, where a ship may anchor in 12 fathoms good ground, about 2 m. off shore, and be sheltered from the N.-Westers by the projecting land of the cape; but a sudden change of wind to the S.E. would imperil her. In the bay, S. of Cape Keriya, there is a village of the same name, and a small island near the shore. Around the cape regular soundings are got from 25 to 30 fathoms, 2 or 3 m. off shore, which extend 3 leagues to the W.; ships may, therefore, anchor here, when it falls calm. The government of Muscat sometimes extends to Ras-el-Hadd, although it is not safe for Europeans to land at the villages near the cape, because the inhabitants are inhospitable to strangers, and the Bedouins, or roving Arabs, often keep some of these villages or towns in subjection. The coast abounds with excellent fish, which, with dates, are brought off by the country boats to ships passing near the villages. Between Cape Keriya and Muskat, is the projecting point, Ras-el-Kheiran, which is sometimes mistaken for the cape, from which it bears about N.W. by N.; and from hence the coast runs about N.W. by W. to Muskat Point; the distance between it and the cape being about $8\frac{1}{2}$ leagues. All the land in this place is high and uneven, rocky towards the sea, of barren aspect; no soundings to be had except very close to the shore. From Ras Aboo Daood to Muscat, there is a confused mass of hills near the sea, with range beyond range of mountains behind them.

BUNDER KHEIRAN. Immediately to the W. of Ras-el-Kheiran are two islands not easily distinguished, owing to their uniformity of appearance and height with the main land, and to their not projecting beyond the line of coast. Behind the W. and larger, is the anchorage called Bunder Kheiran. The small island, in lat. $23^{\circ} 32'$ N., lon. $58^{\circ} 45'$ E., is $\frac{1}{2}$ m. long, and the channel behind it only 200 yards wide, tortuous, and very shallow; although at the entrance it has 3 to 5 fathoms. The W. island (300 ft. high,) is steep and rocky, and $\frac{3}{4}$ m. long; close to the E. end is a small detached rock, between which and the E. island is the entrance channel, 600 yards wide, with 15 fathoms in it.

The Strait, between the S. side of the larger island and a projecting point of the coast opposite, forms the anchorage, which is 150 to 200 yards wide; there are 4 to 5 fathoms in this part. Off the S.W. corner of the island, the Strait is wider, and has a rocky islet in the centre, with 6 to 7 fathoms on its E. side, and 3 to 4 round it. Near the S. end of this islet, a narrow passage leads into a shallow bay, extending a mile to the S., where it ends in a swamp. There is a large grove of date-trees, and a small village.

The W. entrance is about 150 yards broad, $\frac{1}{2}$ m. long N. and S., and has 9 to 7 fathoms in it. This harbour is only frequented by fishing boats; the winds are very baffling, particularly in the W. entrance, and blow in violent gusts during N.-Westers. A disabled steamer, requiring smooth water for repairs, might conveniently use either this sheltered harbour, or Bunder Jisseh.

BUNDER JISSEH is another small anchorage, 5 m. S.E. from Maskat, formed by a precipitous light-coloured island, 600 yards long and 140 ft. high, which stands in the entrance of a bay $\frac{3}{4}$ m. in length and depth. The E. entrance is 300 yards broad and has 7 fathoms in it; the W. one is blocked up by a flat rock, having only $1\frac{1}{2}$ fathoms on each side of it. The bay has 4 to 7 fathoms in it, and an indented outline, with an islet on the S.W. side, to the W. of which is a large village and date grove.

The coast is rocky; a succession of rocky points and sandy bays, with several villages between it and Maskat. Bistan has a date grove, the inhabitants are cultivators. Kantab, a small fishing village, has a pyramidal rock standing in the sandy bay close to the shore; this place lies under the hill called Maskat Saddle. Sidab Cove might afford shelter to small craft during a N.-Wester. Sidab village is separated from Maskat by only a small ridge, having a wall and gate in the pass.

MASKAT, or MUSKAT, is the capital of Ohman, and residence of the Sultan or King, whose territories extend along the coast from Ras Musandim to Ras-el-Hadd. Including the adjacent villages and towns, from Sudab to Matreh, it may contain about 60,000 inhabitants; but this is merely an estimate.

On the death, in 1856, of Seyyid Sa'id bin Sultan, the kingdom was divided; his son, Seyyid Taweyni succeeded him in Ohman, whilst the African territories (Zanzibar, &c.) went to another son, Seyyid Majid, who died in 1870, and was succeeded by Seyyid Burghash. The ruler of Maskat is not properly called Imam, but Seyyid, or Prince; sometimes he is styled Sultan. The extent of his dominion in Arabia is practically limited by the distance at which he can enforce his authority, which, in general, is only near the sea-coast; he has a small, regular force of Arabs, Mekranis, and Sidis (Africans,) who garrison his forts and Persian possessions; they are only armed with matchlocks, swords, spears, &c. He has lately obtained a few field-pieces and some artillerymen from the Persians. In addition to his Arab possessions, he holds the islands El-Kishm and Hormuz, and the Persian coast from Khamir to Jashk, of the Persian Government, on payment of a tribute: he

also holds Gwadel, and several places on the Mekran coast between that and Jashk. The fleet of the late sovereign was divided between Zanzibar and Maskat. The present Maskat squadron consists of an old-fashioned 36-gun frigate, one or two corvettes, and a few brigs, armed baghalahs, &c.

The Ohman revenues are much curtailed by the loss of Zanzibar, and the kingdom has suffered from civil commotions since the death of Seyyid Sa'id bin Sultan, who reigned 52 years, and left fifteen surviving sons, many of whom have been fighting for supremacy ever since. Their names were Thuwainy, Muhammad, Toorky, Majid, Burghash, Abd-el-Wahab, Ghalib, Abd-el-Ahziz, Khalifah, Suwaid, Abbas, Menin, Bedran, Nasr, Abd-el-Wahhab. The eldest son and successor was assassinated in Feb., 1866, by his own son, Salim, who held the reins only till Oct., 1868, when he was overcome and turned out of Maskat by Ahzan-bin-Kais. Now, either the latter or Toorky is the ruling Seyyid. The Sheik of Abu Zhabi, in 1869, took up Ahzan's cause; whilst the chiefs of Debai, Ajman, and Ras-el-Khaimah, co-operated with Toorky, and his brother, Majid, sent him money from Zanzibar. In August, 1872, the Seyyid Toorky remained supreme as Sultan of Maskat.

Maskat was in possession of the Portuguese from A.D. 1508 to 1651, when they were expelled from all their possessions in Arabia by a simultaneous revolt of the Arabs. They fortified the place strongly, and built the forts Jillali and Merani; probably the others also are, in part at least, of Portuguese origin. In a Portuguese inscription over the inner gate of Merani is the date 1588, and in an old wooden gate at the custom-house, is cut "Anno 1624." Their expulsion from Maskat was effected by the Imam Sultan-bin-Seif, about A.D. 1651—2, but only through the treachery of a Banyan, Narootem by name, who was Treasurer and General Agent to the Portuguese, and whose daughter the Commandant, Pareira, foolishly insisted on marrying. The crafty Banyan obtained his consent that the marriage should be postponed for a year; then he advised the Commandant to clear out the water-tanks, to have all the powder restored, by being pounded anew, and the old supplies of wheat to be removed, to make way for new. The stratagem succeeded, and whilst the Portuguese were unprepared and lulled into fancied security, Narootem secretly communicated with the ruler of Ohman, Sultan bin-Seif, advising him to attack the place on the following Sunday. The Arabs came on that day, surprised and slew the Portuguese, and recovered their town. The same Imam, fired with his successes against the Portuguese, attacked Diu and Damaun, carrying off an immense booty.—(See Hakluyt Society's "Imams and Seyyids of 'Oman.")

The whole of the fortifications, both land-ward and sea-ward, are in a very dilapidated state; the guns are chiefly Spanish and Portuguese, the iron ones quite rusty and useless, and the carriages dropping to pieces. A few brass guns are in better condition; one fine old Spanish gun in Merani Fort has the date 1606.

The Maskat Government has treaties with Great Britain, France, and the United States. The late sovereign was a faithful ally of Great Britain, and fought with us against the pirates, &c. Maskat pays a religious tribute, or tithe, to the Wahebbi chief. The population of Maskat and Matreh is very mixed, with a large infusion of African blood. Kalbuh, Riyam, and Arbak are inhabited by a higher class of Arabs. At Kalbuh are the Beni Marazik; at Riyam the Beni Ahmed; Shateif, Mateireh, and Sudab villages are inhabited by fishermen.

Supplies. Notwithstanding the barren appearance of this place, the country inland is in many parts fertile, and furnishes considerable supplies. Water is brought from the wells in the suburbs, in a small aqueduct, by the side of the great water-course, to the landing-place, and brought off in native boats; if a vessel has no casks, they would bring it off either in bulk in a boat, or perhaps in one of the large wooden tanks used by baghalahs, but it is advisable to see that the tank has been cleaned out properly. Occasionally, after a long drought, the water is scarce and bad; but as a rule, good, and in sufficient quantity. Fire-wood is procurable; so are sheep and cattle (the latter are best); vegetables; fruit, *viz.*:—limes, oranges, grapes, pomegranates, mangoes, plantains; fowls, plentiful and cheap; flour, all ground in hand-mills; Arab bread; rice and dhol (Indian pea,) which come from India; and the usual other articles required for a ship, excepting spirits, salt meat, and biscuit. No coal is obtainable here; but the Indian Government generally has a few hundred tons here for the use of their own vessels.

British Agent. There is an agent here, hitherto a native; but an European officer, with the rank of vice-consul, has been lately appointed. Price currents, rate of exchange, &c., which vary much, would be obtainable from him. There was a French agent here till recently, but it is not certain whether there is one at present.

Trade. The dollar is the coin preferred. The rate of exchange is settled by the Banyans, of whom more is said below. The exports are: corn, brought from the opposite coast of Persia, and mules and asses from the interior, which are sent to the Mauritius and to Bourbon; salt is exported to Calcutta, also dried fish, and shark-fins, &c., for the Chinese market: dates are exported to the Malabar coast, Kutch, &c.

The imports, on which 5 per cent. duty is levied without distinction, are:—sugar from the Mauritius; from India: piece goods (from Bombay); large quantities of rice, and some teak timber (from Malabar); indigo (from Calcutta); ghee (from Karachi and the Mekran coast); cotton and native fabrics (from Kutch); coffee, &c., from the Red Sea. There is also trade with Zanzibar and the African coast. There is a large number (several thousand) of Hindoos of the Banyan caste, settled here, chiefly from Kutch and Gujerat, and the trade is much in their hands: they have always been encouraged by the Maskat Government. The customs are farmed to some of these men for a certain annual sum. They only settle here temporarily, and do not bring their families with them. A small colony of these enterprising men is to be found in most towns of the coast of Arabia. The manufactures are few: certain kinds of cloths, used by the Arabs, are woven; and arms, as swords, match-locks, &c., made here.

There are several fine square-rigged ships belonging to this port, besides a great many baghalahs and other native craft.

MASKAT COVE is the E. of five coves, lying between Ras-es-Shateif and Ras Maskat, a distance of only $1\frac{1}{4}$ m. It is formed by the steep rocky island called Maskat, or El-Jezirah, and a smaller one, on the E. side; and a high point of land on the W.

Maskat Island, 350 ft. high and precipitous all round, is 1,400 yards long, by 200 to 500 broad: it has deep water close to outside; 30 fathoms at 2 cables off. Its coast-line is very irregular, and at 2 furlongs from the S. end, it is nearly divided by two little coves opposite each other, the hill being quite low just between them. The N. point of the Island, called Ras Maskat, is a round, sloping bluff, while the points to the W. of it are cliffs. On its W. side, just within the cove, is a fort or battery near the water, with a tower half-way up the hill, called Sirah (es-Sirah esh-Sharkiya, or the E. battery.)

Fisherman's Rock, lying off the N. tip of Ras Maskat, in lat. $23^{\circ} 38' N.$, lon. $58^{\circ} 35' E.$, is 10 ft. above water, 20 yards across, and separated from the Island by a strait 50 yards broad, with 2 to 3 fathoms in it: this rock may be rounded quite close, as 5 yards off it there are 6 or 7 fathoms.

The Cove is $\frac{3}{4}$ m. deep N.N.W. and S.S.E., and $\frac{1}{2}$ m. wide at the entrance; half-way in, it is contracted to $\frac{1}{4}$ m. by a projecting point on the W. side, running out E., inside this it widens; at the head it is 300 yards across. The soundings are 12 and 13 fathoms in the entrance, shoaling gradually to 7 and 8 at the narrow part, and to 2 fathoms about a cable from the white sandy beach at the head of the cove, on which the town stands. There is deep water close to all the points round the cove; the little bays in it are shoaler. Merani Fort, called also Kalaht-el-Gharbiya, is at the bottom of the cove, and close round it on the S. side, is the landing-place, which is on the rocks just where the great water-course discharges itself into the cove; here also, is a small place for hauling up and repairing boats.

The W. side is a detached precipitous ridge, 436 ft. high; its N. point is called Ras Kalbuh, or Ras Dukhkan. The projecting point, before-mentioned, is 250 yards long by 60 broad, and about 100 ft. high, being a spur of the main ridge of Ras Kalbuh, and on it is a fort with two rows of embrasures, and a round tower on the highest part, called also Sireh (or Es-Sirah el-Gharbiya, i.e., the W. battery, if required to distinguish it from the other.) On the inner side of this point is formed a bay, called Makalla, with 3 fathoms and under, where the small native vessels anchor. There are several low towers on the different peaks of this ridge, which slopes down at its S. end to a cliff about 150 ft. high, with a large fort on it called Merani, with several round towers on the hill, and a battery near the water level.

The front of the town occupies the bottom of the cove, and is built close down to the water along the beach, so that the sea washes against the houses at H. W. The walls of the town enclose a space of 700 yards by 250, while the suburbs, built of mat huts, occupy every available piece of level ground in the vicinity. The wall is built on the W. and S. sides, the E. and part of the S. side being built close up to, and even against the face of the hills. The Seyyid's palace is the largest building facing the sea, and to the E. of it is a small wharf, with the custom-house. The mosques are small, and, like all in Ohman, have neither domes nor minarets. There are several towers on the hills behind the town; one, called Buma Sali, built on a ridge (highest part 500 ft.,) quite overlooks it and the cove. Maskat Saddle Hill (1,340 ft.) stands 2 m. to S. of the town.

Between the town and Maskat Island are two small detached hills, the S. of which, about 100 ft. high, is joined to the town by a low, sandy isthmus, and has a large fort on it called Jillali, which has two tiers of embrasures, both casemated, and a round tower at each end; there is a fine flight of steps cut in the rock up to this fort. This and Merani are the two principal forts, and quite overlook the town. The other hill forms an islet at H. W. about 60 ft. high; with a passage with only 1 ft. at L. W., and 30 yards wide between it and Maskat Island, called Doweireh. Behind these is a cove or series of little coves, between Maskat Island and the main; there are two remark-

able natural pillars of rock in it, one close to the S.E. tip of the island, the other $\frac{1}{2}$ m. to the S.; just below the latter is a projecting point called Ras Jen'adeh, a perpendicular cliff about 250 ft. high, conspicuous from the N. In one of these little bays, called Moghub, close to the S.E. of Jillali Fort, the Red Sea and Karachi telegraph cables were landed.

Fahl, or Fahil Islet (280 ft. high,) is of light colour, quite precipitous, deep-to all round, and has no danger near it; it generally shows light-coloured against the land. It lies $5\frac{1}{2}$ m. to the N.W. of Maskat Cove. From the E., when the sun is shining on Jillali Fort in the morning, it sometimes shows white, to the N. of Maskat Island, against the hills behind; all the hills about Maskat being of a very dark colour. Fahl Islet is in lat. $23^{\circ} 41' N$, lon. $58^{\circ} 30' E$.

Tides. In Maskat Cove it is H. W. on F. and C., at 9 h. 15 m., and the rise and fall is 6 to 8 ft. (approximate.)

DIRECTIONS. Approaching Maskat from seaward, either from the E. or W., the Saddle Hill, 1,340 ft. high, is remarkable; it is formed by two sharp peaks, the highest of the very jagged dark range behind Maskat; they are in one when bearing W.S.W. If coming from the N. this hill is not so conspicuous, as the peaks are some little distance apart. In the back-ground will be seen in clear weather the Kerriyat range of mountains, and to the W., the mountains Jebel Tyin and Jebel Nakhil, with lower ranges between them and the coast-range. The place has often been passed by strangers, especially steamers, as the towns do not show well under the dark hills, and lying at the bottom of coves, are only visible with the cove open. As there is no danger on this part of the coast, steamers especially should not be far out, and then Fahl Island cannot be overlooked.

In the day-time a ship should run into Maskat Cove, and anchor well over to the W. shore, which is the weather side in a N.-Wester. If only calling at the place, she may anchor in 13 or 14 fathoms in the entrance; but if requiring supplies, &c., it is advisable to anchor, if there is room, about abreast of the W. fort Sireh, and pretty close to it. The Sultan's ships of war lie further in.

The place is nearly open to the N.-Wester, which blows a couple of points off the W. side, while the sea sets straight into the cove; so that vessels making a long stay here, always use a stern anchor to keep their head on to the swell. The N.-Easter, or Nashi, also sends a heavy sea into the cove, and there is little or no shelter from this wind. The bottom is sand and shells, but with a long scope of cable, vessels need not apprehend driving, as the anchors would have to drag so much up hill; and when near the rocks, there appears to be a rebound of the wave, which lessens the strain on the cable. Outside the cove in depths above 20 fathoms, the bottom is clay or mud. The deep-sea lead will not get bottom at 1 league off Maskat.

The wind (when there is any) nearly always blows into this cove, vessels generally have to warp out till able to make sail, but there is often a light land-wind at night, sufficient to enable a vessel to get out. In April, 1847, Maskat was visited by a storm of a cyclonic character, and two days after the Bombay (*Cleopatra's*) cyclone; this did great damage to shipping in the cove; several vessels were driven on the rocks: rain fell in torrents, and the streets were flooded.

By night, a vessel arriving from the E. should run up the coast, keeping to the S. of the parallel of Ras Maskat, or make short tacks up to it, so as to be sure of not passing it, as it will then form the extreme of the land; and she should remember to round the *first* point, and as close as possible. Fisher's Rock would be seen, probably, by its horizon being lower, or as a notch in the water-line of Maskat Island; after rounding it, keep a look-out for the shipping, and anchor in the mouth of the cove, well over to Ras Kalbuh, which by night always appears much closer than it really is.

Coming from the W. or N., a vessel should make Fahil, from which Fisher's Rock bears about S.E. by E., 6 m. Remember, however, that Ras Maskat will be the last point, and nothing will be seen to the E. of it. In 1857, a steamer, not attending to this, got on the rocks in Kalbuh Cove, which she had entered at night, taking it for Maskat Cove. The shipping does not show well against the hills, but when close, their hulls might be seen, especially from aloft.

The four other coves are called after the towns situated in each; Kalbuh, Riyam, Matreh, and Sbateif. That of El-Matreh is largest and best.

Kalbuh Cove is a small cove between Ras Kalbuh, before described, and Ras-el-Bahs Point with an isolated hill about 100 ft. high, with a round fort on it. It is 3 cables long by $2\frac{1}{2}$ broad, with 8 fathoms in the entrance, and shoaling gradually up to the town; is quite open to the prevailing winds, and not frequented by shipping. There is a spit of rocks, covered at H. W., extending $1\frac{1}{2}$ cables W.S.W. from Ras Kalbuh.

In appearance the town resembles Maskat on a smaller scale. It extends $\frac{1}{2}$ m. back up the valley from the sandy beach, and nearly joins the suburbs of Maskat, being separated from them by a low ride, over which the foot-path passes. There is a wall and gate to cut off the communication. The hills on the W. side of Kalbuh, or Killabuh, are about 250 ft. high, and are

like Ras Kalbuh, nearly detached from the main range of hills behind. Between the isolated hill forming the W. point of Kalbuh Cove and this ridge of hills, is a sandy isthmus, on which is a little village called Doheh, with some stone houses; a part of the village is detached, and lies a little back in the hills to the W. of the point.

Riyam Cove is about the size of Kalbuh, with soundings decreasing from 5 fathoms. It is not visited by vessels, being also open to the prevailing winds. Between this cove and Doheh a small spit of rocks runs off half a cable. Riyam Village is smaller than Kalbuh, and extends $\frac{1}{2}$ m. up the valley, whence there is a foot-path for a $\frac{1}{4}$ m., over a fortified pass, to the suburbs of Maskat; to the W. of the village is a steep and rugged pass to Mateireh and Matreh. The W. point of Riyam Cove is a detached hill about 80 ft. high, quite precipitous, and having a sunken rock 70 yards off to the N. of it; to the W. of this point is a bight, used by small native craft in a N.-Easter, and sheltered partly in a N.-Wester by Ras Kowaser; it is called Bunder Dinaja.

Matreh Cove, $\frac{1}{2}$ m. broad, and 6 cables deep, is between the W. point of Riyam Cove and Ras Kowaser. It contains several little bays and villages, besides the town of Matreh, which stands at the head. Next to W. of Bunder Dinaja is a small sandy bay, with a large village called Mateireh, (Little Matreh) extending back some distance. A detached hill about 100 ft. high, with a large castle on it, called Sirah Matreh, separates this village from Matreh; there is a foot-path round inside this hill to that place, which is nearly connected with Mateireh.

EL-MATREH, on W. side of the cove, is a town about the same size as Maskat, and inside the walls, well built. It has a front of nearly $\frac{1}{2}$ m., along a fine sandy beach at the head of the cove. The only pass from Maskat into the interior by land is from this place, which is fortified on the land side, where the hills are not inaccessible, by a wall and towers; there are also many detached towers on the hills round the town.

The communication by land with Maskat, which is very rugged, is through Mateireh; and thence either to Riyam and Maskat (*see* Riyam), or from Mateireh to Maskat direct by a very rugged steep pass. These paths are not practicable for loaded animals. Everything is sent between these places by sea in large canoes; and, if not blowing hard, the general mode of transit is by boat. Large numbers of these canoes ply regularly between Maskat and El-Matreh, most of the merchants of the former place residing here. This town is under a wali, or deputy of the sultan. The Khojeh sect have inside the town a separate fortified quarter, containing about five hundred houses, into which none but Khojehs are admitted; this is called Mahallet-el-Luwatiyah. At 6 furlongs to the S. of Matreh Castle is a remarkable sharp peak, called on the chart Matreh Peak, the highest on that range.

Arbak. On a projecting rocky hill, about 60 ft. high, forming the N. point of Matreh Bay, is a small fort, and in the sandy bay on the other side of it, lies the town of Arbak, which has a tower and wall separating it from Matreh in the pass behind the hill. There is another small fort on a hill immediately N. of Arbak. **Ras Kowaser**, a precipitous point about 200 ft. high, has a rocky ledge, on which are several detached high rocks, extending $1\frac{1}{2}$ cables off it, and a low islet a cable N. of it.

Anchorage. Matreh Cove affords good shelter in a N.-Wester, but is open to the Nashi or N.-Easter. The larger native vessels always anchor in this cove in preference to Maskat, but square-rigged vessels seldom use it, always going to Maskat. The anchorage is close under the shore, between Ras Kowaser and Arbak. The landing-place at Matreh is at either end of the sandy beach; in a N.-Easter the best place to land is on the rocks just at the N. end of the beach.

Shateif Cove, the last of the series of coves about Maskat, is small, open to the N.-Easter, and is never used by shipping. The little village is insignificant. There is a foot-path through the hills to Arbak. On the N. side is a high ridge, about 350 ft. high, which ends in the perpendicular bluff called Ras Shateif; it has 20 fathoms only $1\frac{1}{2}$ cables off.

POPULATION AND TRADE OF ARABIAN COAST.

The trade of Ahden and the Arab tribes to the W. of that place were described at the end of Chapter VII. This is a continuation of that description, and it is hoped that navigators will now find the Arabs in the vicinity of Ahden more civilized than they were at the period when the surveyors of the old Indian Navy first thoroughly examined that coast. Ahden is situated in the territory of the **Abdali tribe**, said to number about 10,000 souls, who are not always friendly towards Europeans. Their chief town, situated 17 m. to N.N.W. of Ahden, is Lahej, where the Sultan resides, and whence supplies of fresh provisions come into Ahden.

Gubet Seilan. From Cape Ahden, which is, perhaps, the most remarkable feature on the