

CHAPTER V.
ON THE RED SEA.

THE RED SEA.

The waters of the sea are murmuring against the sandy shore of the wide bay that penetrates westwards; towards the south-west the foremost billows of the open sea strike with greater power, advancing in long rolling swells. At a greater distance towards the south the shore surf ceases, and as far as the eye can reach, a streak of foam separates the deep dark sea from a lighter, shallow coast lagoon, which is almost dry at ebb-tide. On the north of the bay, which is open towards the east, another similar lagoon is seen, soon disappearing from sight behind the northern hills. A dull, hollow, thunderous booming and roaring, in which the listening ear imagines that it can from time to time distinguish a singing and whispering, called by the natives "the weeping of the sea," mixed with the howling of the north wind, brings to us from that quarter intelligence of the wild war of the waves against the firm land. The bottom of the lagoons just mentioned is a coral bank and the bay an opening in the same, a natural harbour. We are standing on the west shore of the Red Sea at 26° N. lat., in Koscir, the sea-port town of Upper Egypt.

Until a recent period the Red Sea was known to the public at large almost entirely through the tragical death of the Jew-persecuting Pharaoh, and it is only within the past few years—since the opening of the Suez Canal—that it has had the honour of being again in the mouths of all. "But why is this sea called 'red?'" is the question commonly suggested when the sea is mentioned. The inhabitant of the desert finds an answer when the sun rises in his dull-gray morning robes; the reappearance of the rising day-star awakens on the top of the waves and ripples a millionfold,

glancing and glittering, and the rambler on the shore now sees his shadow doubled, it being produced by the sun himself and again by his equally brilliant image in the sea. The higher the sun rises the deeper becomes the blue of the waters, changing from royal blue to slate blue, and in places where there are underlying rocks all at once to grayish-green. As the sun sinks, late in the afternoon and onwards, the blue becomes paler, rising to sky blue, and with sunset loses itself in a white or sometimes rosy-tinted surface. At night it is black like other terrestrial objects, and only the stars seem to bathe in it. The full moon throws a long narrow silvery trail of light across the waters to the horizon. At night, when the water is disturbed by a stick or an oar, the drops, which contain decomposing animal substances, glitter like sparks of fire; or some swimming creature gleams spectrally in the nocturnal water; while a similar general luminosity of the watery mass, the "sea-light," is here a rare occurrence.

The cause of the name is by some assigned to a microscopic alga (*Trichodesmium erythraeum*, Ehrenberg), which sometimes communicates a blood-red colour to certain stretches of the sea; or to red mountains on the coast; but these are only local and limited occurrences. The coast mountains are generally white. The corals of the reef are mostly brown, yellowish, or bluish, the red ones being less numerous; lastly, among the fishes, crustacea, &c., there are only a few that are red. There is, therefore, hardly anything that is red connected with the Red Sea, and the name was probably chosen capriciously by the ancients, or by way of *lucus a non lucendo*.

THE DESERT SHORE.

The shore and country adjoining it, often for miles into the interior, is a howling wilderness, with an arid or saline and friable soil, here and there covered with white salt flowers, as if with snow or hoar-frost; the subsoil water is brackish and bitter, almost undrinkable. There is scarcely

any vegetation except a few salt plants. It is not till we approach the mountains that the soil of the valleys becomes capable of sending up herbage after rain. A more desolate strip of coast is hardly anywhere to be found unless on the shore of the Sahara or the Arctic Ocean. "Oh wherefore then is the water of the ocean not fresh!" with childish peevishness exclaims the wanderer on the boundaries of the desert of land and water; "into what luxuriant fields might not these subtropical shores be converted!"

ANCIENT SETTLEMENTS AND SEA-PORT TOWNS.

Here one would think that a human being could no more get on than on the waterless moon. And yet man is here; to this locality too has he been brought by the struggle for life. Round the wells and springs in the mountains he has settled as a herdsman, passing a wretched existence, and to the coast has he come as an ichthyophagist, a fisherman, a mariner, a trader. Even the peoples of antiquity had populous towns here, the entrepot of an active trade carried on by Egypt with Arabia and India. In the time of the Ptolemies there were, beginning at Suez, the ancient Clysma, and going south: 1, Philoterās, probably at the bottom of the bay of Gimse and on the Wady Enned; 2, Myos Hormos, or Portus Magnus, probably on the bay of Abu Somer; 3, Leukos Limen, perhaps the present Old Koscir; 4, Nechosia, at Ras Moghek; 5, Berenice, the chief trading town, at Ras Benas. But they flourished only for a short time, one town rising as the other sank, partly because the trade took a new route or ceased altogether, partly because the harbours became sanded up or left by the sea (see Chap. IV. p. 234), or were reduced to small dimensions by the ceaseless operations of the coral polyps. The towns then fell into ruins or vanished without leaving a trace. In the first centuries of Mohammedanism the only point of importance on the coast was the port of Aidab, in the neighbourhood of Suakin, opposite Jeddab, where the pilgrims took ship from Africa for Arabia.

HISTORY OF THE SEA-PORT OF KOSEIR.

The Turkish conqueror of Egypt, Sultan Selim III., appears to have been the first who again directed the route for trade and pilgrims to the Egyptian coast: at least he built a small fortress, the modern Koseir, principally for a protection against the Bedouins, erecting others of the same kind also on the east coast, in Moilah and Wudj for example. But no inhabited town arose under the protection of this fortress, Koseir being only a periodical trading-place. The road through the desert was so dangerous, on account of the plundering Bedouins, that only large caravans could venture to pass through it. The merchants attached themselves to the pilgrim caravans, and crossed the sea with the pilgrims as well in going as in coming; the Arabic merchants, chiefly belonging to Yemba, at this time transacted their business in Koseir, and then returned home. There were only a few houses standing inhabited by people from Yemba. In this condition the place was found by the French on their conquest of Egypt; as a point of strategic importance they kept it garrisoned during the three years (1798-1801) that they possessed Egypt, and cannon and mortars still remain ornamented with the Jacobin cap and republican inscriptions of the year III.

Koseir first became a permanent settlement of importance under Mohammed Ali, and under the favour of this pasha soon rose to a flourishing position. The fact of its having a comparatively good harbour, at least for smaller vessels, in a situation that could be reached from the Nile valley more easily and in a shorter time than any other port, and enjoying a climate celebrated as being temperate and healthy, appeared to justify the selection, notwithstanding the want of fresh water. The viceroy was, as he still is, bound by treaty to pay a portion of his annual tribute to the Porte in the form of deliveries of grain for Arabia, with which the Sultan, on his part, had to supply the Turkish soldiers and officials there, the chiefs of the Bedouins, who would not allow the caravans to pass unmolested through their territories unless on this con-

dition, and the sherifs or descendants of the Prophet. These deliveries, called *dackire*, consisted of about 180,000 ardeb annually—wheat, barley, beans, lentils, and also oil, biscuits, and the like. Koseir was selected as the place where these were to be collected. At that time, when there was no railway, Suez was as difficult to reach from the fertile regions as Koseir; from it a long and dangerous sea voyage had first to be made to the Arabian ports of Yemba and Jeddah, and the corn of Upper Egypt was better and cheaper than that of the Delta. The distance by sea from Koseir was considerably shorter, and through the energetic measures of the viceroy, who had effected treaties with the Bedouins, the desert route had been rendered quite safe. The hope of deriving a large profit from the transport of this grain as well as from the then flourishing private trade, and from the passage annually of a large number of pilgrims to Meccah, as well as certain privileges specially granted to the place (freedom from military service and direct taxation), soon attracted a multitude of people both from the neighbouring valley of the Nile and from the Hedjaz, especially Yemba. Thus in a short time (in the first thirty years of the present century) Koseir acquired a settled population of 6000 to 8000 souls. It obtained the title of *bander*, meaning pretty much the same as "good town" or "good trading-town," and had a governor of its own (*Muhâfiz*) of the rank of a bey, who was directly dependent on the central government at Cairo, as those of other sea-ports, Alexandria for example, still are. Correspondence with the central government was partly carried on by messengers mounted on dromedaries, who set out at least once a week, and, taking the most direct route, traversed the desert in five days, partly by a system of towers and semaphores running through the Nile valley to Cairo. At this time there were at Koseir about sixty persons employed by government, including, besides the governor, a port-captain, a doctor, two superintendents of police and customs, three overseers for the grain-store (*shuna*), nine Coptic clerks, eighteen soldiers, with two corporals, for the fort, hospital-superintendent and male attendants, custom-house officers, &c. Every

month these received as pay sixty-four purses (1 purse=500 piastres=about £5), the governor alone claiming sixteen purses. Extensive public buildings arose for the government, the customs, and the grain depot. The citadel was repaired and additions made to it, a quay faced with stone and a wooden mole projecting into the harbour were built. The inhabitants on their side filled up a portion of the beach and built houses, mosques, and the bazaar. The prosperity of the place increased to an unusual degree; almost all the trade between Egypt and Arabia went through Koseir, every year there passed about 30,000 pilgrims (12,000 going to Meccah, 18,000 returning), and among them many men of rank and wealth from the whole Mohammedan world. Numerous inns served for the reception of these pilgrims, though the greater number of them encamped in the open air or in tents; all round the town a still larger town of tents was pitched. The passage of this multitude of people, who could leave Koseir only by ship or camel, occupied nearly nine months of the year. If it is considered also that every day several hundreds, nay thousands of camels arrived from the Nile valley, that another hundred or two brought water from the mountains and were quartered in the neighbourhood, and also that the Ababdeh settlement outside the town numbered about 200 persons, a conception may be formed of how busy a scene the town and environs must have been. Entertainment and amusement were also provided for; there were thirty coffee-houses, three spirit shops, and more than fifty dancing-girls, who inhabited a special quarter of the town. At that time, too, the overland route for the English to India passed through Koseir, and twice a month Anglo-Indian steamers entered the harbour and brought numerous European travellers who, from Koseir to Keneh in the Nile valley, rode on camels, or, perhaps (especially the ladies), had themselves carried this distance in palanquins, a journey of four or five days. For these steamers a coal depot was formed. An English, a French, an Austrian, and a Persian consul—all natives of the country—looked after the interests of the travellers belonging to the country represented by each.

Hundreds of vessels entered the harbour every month; for the transport of the contributions of grain, and perhaps also for certain warlike purposes, the Egyptian government itself possessed seven large three-masted vessels of European build, of from 4000 to 7000 ardeb burden, with European captains and officers, as well as eleven one-masted vessels of Arabic build; but even these were not sufficient; and had to be always supplemented by many ships hired from private persons.

Under Abbas Pasha, and up to the beginning of the government of Said, Koseir still continued to flourish. An English company undertook to lay a submarine telegraph to India, and in the Red Sea it was to run along the west coast. At Suez, Koseir, Suakin, Massowa, and Aden stations were established, with four or five Europeans attached to each. After steamers had become less common at Koseir, in consequence of the establishment of the overland route to India by way of Suez, they were again often seen, being partly engaged in the laying of the cable, partly in bringing supplies for the employees, who were allowed to want for nothing belonging to English comfort. These well-paid individuals also spent their money freely and brought no little life into the town—a subject spoken of long after. While these Englishmen were staying at Koseir, the massacre of the Christians at Jeddah took place in 1858. A war-steamer sent by the English government for the purposes of observation and giving security to its subjects created a panic; but in peaceful Koseir there was nothing to avenge. The telegraph soon began to cease to work; when a thorough inspection of it was made, the cable was found to be damaged throughout; the coral rocks had chafed it; and after scarcely two years the telegraph was entirely given up.

The severest blow, however, and one from which it has not yet recovered, was received by Koseir in the same year (?)—the railway between Cairo and Suez was completed. By this means the traffic, including the pilgrims, was almost entirely removed to Suez, for which Said Pasha had as great a favour as Mohamammed Pasha had had for Koseir; all kinds of advantages were granted to it, the Meccah pilgrims must

go by way of Suez to make the line pay, and the *dachire* were managed at Suez. It thus happened that Koseir was deserted by the greater number of its inhabitants almost at once, and it sunk more quickly than it had risen.

Koseir only retained the grain trade with the Hedjaz, which, however, was of some importance, and sufficient to prolong the life of the town. The profit from the pilgrims became rather negative than positive, as with the exception of a few persons from Upper Egypt it was generally none but begging pilgrims that took this route, over the whole of which they could beg. The number of the government employees was greatly diminished, that of the inhabitants sank to 1500, whole streets were deserted and fell into ruins. But still more blows fell. The year 1864 was a year of scarcity, and in order in some degree to lessen this the export of grain was strictly prohibited by an edict of Ismail Pasha. For the town this was a mortal injury. The prohibition was so sudden and unexpected that a large quantity of grain had been already stored up. A deputation of merchants to the government received the answer that of the 11,000 ardeb of grain found to be in the town (in any case, therefore, a considerable quantity) 8000 might be exported, as the corn could not be taken back again to the Nile valley; 3000 were to remain in the place in order to support the inhabitants for six months.

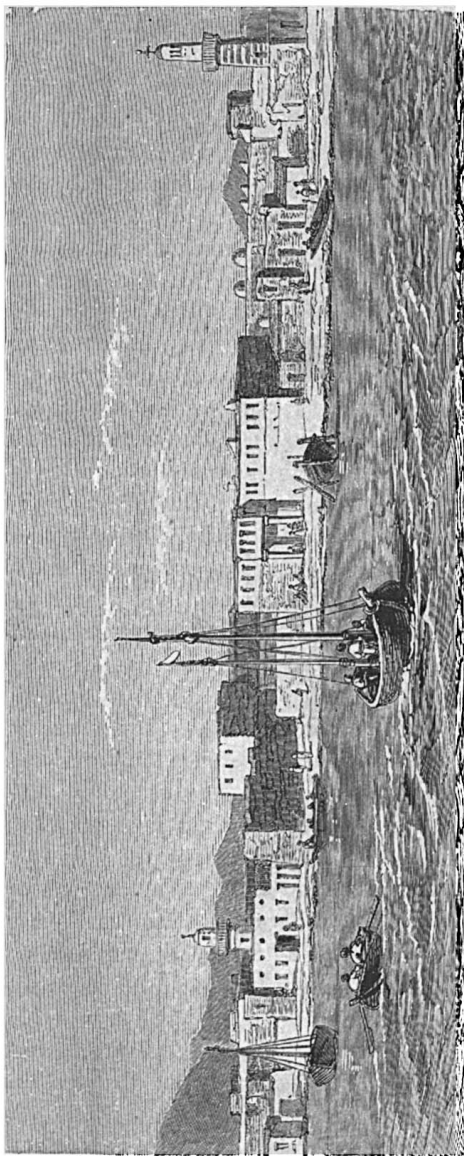
After the year of scarcity the trade again went on, but no longer as formerly. The prices of grain, like the prices in Egypt generally, were no longer so low as formerly, and the cost of transport and customs dues made them still higher for the opposite coast.

Hitherto Father Nile had almost exclusively supplied arid Arabia with corn; but now also the Euphrates and Tigris, even the Indus and Volga, began a dangerous rivalry. By the steamers, which, since the opening of the Suez Canal, traverse the Red Sea in great and increasing numbers, grain can now be brought to the Arabian sea-ports from the distant but cheap countries on the above-named fertile streams at a lower rate than is possible for the Egyptians. Occasionally,

in years of extraordinary abundance, or when high prices rule in these countries; a short time of improvement is again induced, but after those injuries formerly received mainly at the hands of the government, the town is now in the condition of a sick person wasting away through some internal complaint; it can neither live nor die, but every year becomes worse and weaker, and will hardly as such last more than half a score years. The government has, to be sure, given it a strengthening medicine by causing the *dachire* to be again exported from Koseir, after finding that the Suez route was too expensive; but the contribution now amounts to only 24,000 ardeb, far from sufficient to bring about any improvement. The remaining trade, exclusive of the grain trade, is also too insignificant to keep up the town; and while the sources of income are drying up, taxes are enormously increasing; provisions, being generally brought from a distance, are usually higher than in the Nile valley, to which must be added the cost of water, amounting for a considerable household to from 1s. 6d. to 6s. a day. At present, therefore, everybody is now leaving his native town, formerly so dear, and the population can now scarcely amount to more than 800.

The history of the town of Koseir, as we received it from the mouths of natives, we have given in some detail, partly because it is not uninteresting in itself, partly because it shows what an ephemeral existence the waterless sea-ports on the Red Sea have and always had.

Even Suez is not secure against a blow to its prosperity, in spite of its canal. Some time ago the project was brought forward of bringing the traffic, which merely passes Egypt through the canal, and brings nothing to the country, more into the country itself, and on the Egyptian west coast of the Red Sea a good harbour which could be easily provided with fresh water was sought for. The harbour was then to be connected by a railway with another railway to be constructed in the Nile valley; and it was hoped that at least a portion of the trade with India would be attracted to this quicker route, much in the same way as the route to Egypt *via* Brindisi is often preferred to that *via* Marseilles or Trieste. All



Drawn by Karl Girardet.

KOSEIR ON THE RED SEA.

From a Sketch by Guillaume Lejean.

these advantages, it was believed, were to be found in the good harbour of the anciently celebrated town of Berenice, but the project was quite given up.

Perhaps recourse may once more be had to the unfortunate town of Koseir, which, though it neither has a good harbour nor yet fresh water, possesses the advantage of being near the Nile valley, and of being connected with this by a road along which a railway might easily be constructed. A good harbour would be found at Shurum, 18 or 19 miles farther south, and the want of water might be remedied by cisterns. If a more active race than the indolent unenterprising native Moslimin inhabited these regions, town after town might now perhaps rise even on these barren shores, as in the time of the Greeks, and in the adjacent desert garden after garden might perhaps be made by the digging of wells. The town of Koseir has at present produced at least one garden, though, certainly, this cannot be called luxuriant.

THE TOWN.

The picture of our sea-port town essentially resembles that which we have already drawn of a provincial town of Upper Egypt (see Chap. I.), but many Arabic elements from the Hedjaz also present themselves. Here also the houses are generally of one story and built of sun-dried bricks, and they stand in straight rows, the streets being remarkably clean. A few handsome government buildings of stone, some mosques and sheik-cupolas, rise above the other houses, and the whole is commanded by a citadel occupying a considerable area, but of no use for modern warfare. On Sundays and feast-days many flags are hoisted. In the foreground lies the bay with the shipping, in the back-ground rise picturesquely the mountains of the desert.

POPULATION.

The population, as in other sea-ports, is remarkable for the diversity of races it exhibits, while here also there is a still

more striking diversity of colours. The chief body consists of the free proud offspring of sacred Arabia, who for the sake of gain have bowed themselves under the rigorous sceptre of Egypt, and have accustomed themselves to behave like the submissive slaves of the land of the Pharaohs. These "Yembaiyeh," or Bedouins, as they like to be called, still continue to look proudly down upon the Fellahin. They love to clothe themselves in bright and gay-coloured attire instead of the blue blouse of the Fellah; round their heads they wind a bright-coloured cloth which hangs down over their shoulders behind; their naked feet carry thick sandals. These Yembaiyeh are generally connected with the shipping, especially as owners, captains, and sailors. The Egyptians are more important numerically; they are the petty traders, artisans, and porters, though many are also excellent sailors, or have become merchants and ship-owners. The greater number have come from Upper Egypt, only the younger having been born in the place. There are also a number of Copts among them. Of genuine Turks there are only the governor and a few officials; the half-dozen soldiers in garrison are of Turkish descent, but have been born in the place and are quite Arabified.

The negro slaves form an essential constituent in the population, acting mostly as sailors. To these are to be added—besides the deep-brown Upper Egyptians—the almost black Ababdeh, so that the prevailing shade of colour among the people of this place is very dusky. In keeping with the etiquette of the neighbouring holy land, the women here are more strict than elsewhere in closely veiling themselves. When ladies of position arrive by sea they are not put ashore until late at night, and also when they come from the desert they choose the night for their arrival if possible. Men whose business takes them to both shores of the sea alternately like to keep a legitimate wife on each side.

THE MARKETS.

In the town we have a bazaar in which the retail dealers, in their primitive booths, sell the products of three quarters

of the globe, and of the Red Sea to boot, such as coffee, frankincense, pepper, ginger, rice, tobacco for the hookah, crushed dates in skins, cocoa-nuts, fancy wooden boxes, and textile fabrics from the East; oil, sugar, rice, dried dates, tobacco, pipe-bowls, camel travelling-bags, shoes, wooden utensils, and fruits from the Nile valley; textile fabrics, cigar-paper, lucifer-matches, tapers, tin, metal plates, and porcelain dishes from Europe; plaited-leather thongs, leather pouches, confectionery, bread and biscuit as industrial products of the town itself; and, lastly, dried fish, dried molluscs, the opercula of molluscs, cuttle-fish bones, porcelain shells (*Cypræa*), shells of the pearl-mussel, and other shells from the sea. Here too the broker runs up and down the market with all kinds of auction-wares: clothing, amber mouth-pieces for pipes, carpets, chairs, goats, sheep, asses, and camels. Large objects for auction, such as boxes, trunks, and other furniture, are exposed in different parts of the market-place, and if they cannot be sold they remain all night under the charge of the night-watchmen that sleep there. In the fish-market the strange forms and brilliant colouring of the Red Sea fish are exhibited as they hang in bunches by means of a cord of alfa grass drawn through their gill-openings; the large ones lie on straw-mats waiting till they are cut up with the hatchet and sold in pieces, while the parts that are not eaten, such as the entrails, gills, and ovaries, are flung to the cats, multitudes of which always collect here. In the fruit-market the parched inhabitants struggle for the fresh fruits and vegetables which the camel-drivers bring from the Nile valley, and are prevented from plundering only by the switch of a police-soldier. The cargo is generally sold to the retail dealer that offers most, after the doctor, who has been summoned for the purpose, or his agents, as overseers of the markets, have passed the goods as not being injurious to health, this being soon managed if a few first-fruits are presented for their families, either gratis or at a low price. Any objections on the part of the police or the "sheik of the vegetables" are also removed in this manner. Many citizens, however, in their longing for green food, set out very early and go a long distance to

meet the expected camels, getting their wants supplied on the spot. In the cattle-market are exhibited various varieties of sheep descended from the fat-tailed breed; the brown-wooled shaggy-headed Nile sheep, the lean sheep of the Ababdeh, and the long-legged, smooth-haired Arab sheep, transported from Arabia by sea, besides the goats of these regions, all of them with large ears. A portion of them are immediately slaughtered on the beach, which is employed as a slaughter-house, by a transverse cut across the throat, in the name of God the all-merciful, according to the rules of the Koran, sea water being plentifully poured over them; others are previously kept and fed in the yards of the corn-dealers, in order to give milk and produce progeny. The latter object is promoted by the public he-goat, who has the market-place allotted to him as his home; here he remains day and night in the midst of the numerous consorts provided for him, and forms an essential feature in the scene. From the sellers of the high-priced drinking water, who set their commodity before them in casks, compassionate souls buy for him the delicious refreshment; but his food he procures for himself, penetrating into the court-yards of the corn-dealers, plundering the baskets of the children that sell bread, or biting unnoticed a hole in a skin containing dates. He even contrives to find entrance into the government grain warehouse by means of his commanding walk and stately horns. The wood-market is provided by the Ababdeh with the excellent wood of the acacia and other trees of the desert, as well as with wood charcoal, and by ships with the same articles from the opposite shore, or with shora-wood. A very cheap fuel, and one in general use, is also brought hither by the Bedouins, viz., balls of camels' dung in sacks, collected on the caravan roads; they also occasionally bring all kinds of desert plants as fodder for cattle. At other times the cattle kept in the town receive the bran arising from the grinding of grain, barley, among the grain-dealers also wheat, and always beans, without which they do not thrive; the latter take the place that oats occupy in other regions.

THE WATER.

The peculiarity of our desert town is the water market. Every morning arrives a stately water caravan with a supply for the wants of the citizen from the springs and wells of the desert. The better springs are from 8 to 10 leagues distant. Each camel carries six tanned goatskins, which are always rubbed with oil after being used in order to keep them from cracking with the heat of the sun on the up journey. This gives to the newly brought water that disagreeable flavour which has made the water of Koseir famous, and causes it to appear undrinkable to the new comer; we must also mention the impurities and insect larvæ that are always found in the basins of springs, and when the water is carelessly filled enter along with it into the skins. For this reason the water becomes putrid in a few days and still more undrinkable. All attempts at purifying it, even filtering and throwing in live coals, are of no avail, though, perhaps, allowing it to stand for several weeks in large reservoirs would have this effect. The water is brought partly by Bedouins, partly by inhabitants of the town itself, who make that their special trade. They require at least two nights and one day, the Bedouins three days. Some of the townspeople who have a large household keep special camels for carrying the water. The water being dear, a full goat-skin, which is by no means large, always costs from half a franc to 2 francs; it is dearer than usual at the pasture season, when the camels are sent into the Nile valley and only those of the Bedouins remain, and also at the time when many pilgrims are in the town. Government officials get their water paid for or delivered by the government; several water camels are at the orders of the governor. The poorer people provide themselves with water from less remote springs, but these are all saline, bitter, and hard. The domestic animals are watered with water from springs in the closest proximity to the town; this water is still worse, and is just drinkable for human beings only for a few months after a fall of rain. The soil is then turned up to the depth of a few feet, and the water collecting in the

trenches is carried by women and girls into the houses in clay pitchers with handles, as on the Nile. The joyful excitement among the townspeople after a plentiful fall of rain that produces a river has already been described in Chap. iv. p. 231. There has been much talk for years about the construction of a cistern; everybody considers the scheme decidedly necessary and even profitable, but from the utter want of enterprise nobody will contribute the money for it. A good cistern, which would have to be well cemented and plastered in order to keep the water sweet, would, in any case, cost a large sum of money; and all sorts of apprehensions stand in the way, such as of the possible drying up of the water after several rainless years, and the damaging of the cement thereby, of competition, of its being forcibly seized by the government if the enterprise should turn out to be profitable, and the like, and the desire was always cherished that the government should take the matter in hand. So the project was always shelved, to be brought again upon the carpet every winter when the stream of rain-water once more ran unprofitably into the sea. Now when the town is lying almost at the last gasp there is no longer any hope of such a work being carried out. Others were enthusiastic about an aqueduct from the mountains, and petitioned the government for it, but naturally in vain. The production of fresh-water from sea-water by distillation, as is done by the government at the Egyptian village of El-Wudj on the opposite coast of Arabia, where the pilgrims must submit to quarantine, obtains least approval; the Moslim will not readily look upon such an artificial product as a true gift of God, and will only drink it when forced.

INDUSTRY.

Manufactures are limited to articles the most indispensable for household use and for navigation, the division of labour being carried to a very small extent. There is here a shoemaker, or rather a cobbler, who is at the same time a tanner and a leather-sack maker; a few blacksmiths who work

chiefly for the shipping; a locksmith who understands gun-making thoroughly, and is also a corpse-washer and Koran-reciter; a turner and pipe-borer, who, when his business as grain merchant allows him a few spare hours, drives his original trade; a joiner or general worker in wood, who, when business is dull, does not think it beneath his dignity to split wood; a number of ship-carpenters; a house-builder, who is also a stone-cutter, a mason, a bricklayer, and a plasterer, and makes room-floors of sand and earth; a tinsmith, who is also a tinkèr and a coppersmith; and so forth. At the pilgrim season workmen of various other trades gather here, such as cutlers, cover-makers, lace-workers, tailors, shoemakers, &c.; these find employment for a few weeks and thus procure means for carrying them farther on their journey. In addition to the manual occupation he may be engaged in, everybody with a few dollars capital does a little bit of trading; he travels in the Nile valley or to Arabia, and buys a few goods, such as cloth, utensils, fruits, live stock, and sells them in the needy desert-town; even the "fortress-commandant" or corporal takes every year a furlough-trip to Cairo and brings back with him various kinds of wares, which have always a rapid sale.

The ordinary citizen passes a large part of his time in the coffee-house, which also serves as an exchange for the mercantile class. Here important affairs are arranged; here the ship-master engages his crew, while others play, sleep, or smoke their hookahs in quiet satisfaction. Greek dram-shops, on the other hand, have not been able to maintain their ground since the glory of the town passed away; in the little town no one has the courage publicly to appear such a sinner as the drinker of spirituous liquor is considered to be.

THE "COURTS" AND THE TRADE.

No little activity manifests itself when the trade is being carried on in the "courts," the magazines of the wholesale dealers or grain-dealers. These are partly independent merchants, who have their business friends, their partners, or

agents in the Nile valley and the sea-ports of Arabia; but the greater number are only agents of Arabic or Egyptian merchants on the Nile. The camel-drivers so soon as they arrive call at one court after another with samples of their goods, especially grain, carrying these in a knot of their shawl or their turban, or in a little bag for the purpose; others who have brought corn on the order of a partner, show the person addressed a sealed packet, also containing a sample and a letter. When the business has been concluded, or everything found correct, the camels that have been waiting outside the town are brought in, the grain is poured out on the smoothly cemented floor of the court and measured. The caravans generally remain over night at a well some miles from the town, which they enter at early morning; all day long business is transacted, and in the evening the caravans start on the return journey, intending to reach the same well again. The treasure-heaps of grain are now prepared for shipment, being remeasured and filled into sacks of coarse canvas or alfa-grass. If a vessel is ready the sacks of corn are placed upon a hand-barrow, consisting of two beams with cross-pieces, and carried by four men singing and tripping along to the custom-house, and thence to the mole, from which it is taken off by a large boat and conveyed on board the ship. But, besides grain, there are also a number of other articles of trade, which, when exported or imported, pass through the courts. Several frequently unite together in one business, but only in the form of partnerships, not of large companies; in these concerns either every member is active, and contributes money as well, or the one contributes the money and the other carries on the business, so that in the calculation of profit and loss the capital reckons as one factor, the personal activity in the business as the other. Others prefer to have agents or brokers, and the latter receive about 2 per cent. of the profits. The taking of interest being forbidden by their religion is not practised by the natives in their dealings with each other; the rôle of usurer, however, has been assumed by Europeans and Greeks, at least in the Nile valley, and they take a high rate of interest (2 to 5 per cent. monthly).

They now lend only upon personal security, since they have learned by experience that otherwise the money is certain to be lost; mortgages upon land are not recognized by the government, at least not willingly, as by this means all the land might soon come into the possession of the Europeans. On the whole pretty sound principles prevail in the commercial transactions of the native inhabitants with each other, and the percentage of European swindlers would probably be far higher than that of Arab swindlers.

CUSTOM-HOUSE.

Goods exported and imported are strictly examined in the custom-house, especially the former, which have here to pay the customs dues, while on the latter the dues have generally already been levied in the Turkish sea-ports of Arabia, and if a clearance sheet obtained there is brought with them nothing more is demanded in the vassal-land of Egypt. On all goods an *ad valorem* duty of 8 per cent. has to be paid; for some, such as common tobacco and nargileh tobacco, far more, up indeed to 80 per cent. In the case of grain that is being exported every twelfth sack, selected at pleasure by the inspector, is opened, and its contents poured out and measured by the measurer appointed. There is generally found to be a surplus over the stated quantity, and this is immediately swept off to assist in keeping the custom-house officials spruce and in maintaining their families and domestic animals. The goods have to go through a series of examinations and investigations by the various customs officials—measurers, weighers, enumerators, valuers, inspectors, clerks, and collectors of dues. The governor has the general supervision. How far these publicans are also sinners we leave to the conjecture of the reader; who may easily imagine also that on such a length of uninhabited and unwatched coast smuggling cannot be prevented.

The exports consist chiefly of grain and leguminous fruits, wheat, barley, millet, beans, lentils, chickpeas, also onions, eggs, fowls, and molasses. Most of these goods go to Jeddah

and Yemba, also the places still belonging to Egypt on the opposite coast of Arabia, viz. Wudj, Moilah, Debba. The imports are much more unimportant than the exports, most vessels returning empty. The number of the articles imported, however, is much greater. The principal are coffee (the most important of all), carpets, spices (such as pepper, cinnamon, cloves, and ginger), essential oils, frankincense, myrrh, mastic, gum Arabic, henpa, tamarinds, indigo, nargileh tobacco, cocoa-nuts, rice, cotton, and silk stuffs, and household furniture and utensils. All these are brought chiefly from Jeddah, which is the emporium for all the products of the East, from Arabia and Persia to India and China. From Yemba come—dates in skins, honey, hides, grease, and also sheep and camels; from the places on the opposite coast, sheep, goats, camels, grease, wood, coal, and salt, though the last is strictly prohibited. Asses and horses are sometimes brought from Nejd. Lastly, the pearl-oyster shells, which the Bedouins of the Egyptian coast bring in their vessels, must also pay duty here, and these form an important article. Slaves are scarcely ever brought into the country by this route now. A short time ago, when the grain trade was carried on, the customs dues are said to have amounted to about £5000 annually, to which must be added the tax for the road to the Nile valley, amounting to £2000 (?). The latter tax is levied for the security of the road, which the chiefs of the Ababdeh have to guarantee, and therefore receive about one-eighth of the money raised. Special officials are appointed for the collection of the road-tax.

THE GOVERNMENT GRAIN-STORE.

There is much activity in the large court surrounded by high stone walls of the *shūna* or government grain-store, in which the *dachire* (see p. 272) are stored. At many places in the Nile valley there are also many similar grain magazines, at which the peasants of the Nile can deliver their tribute in kind. From these the government draws its supplies for the military, &c., or it sells the corn; a portion of this, however,

goes to make up those consignments of grain that, as already mentioned, are sent to the "sacred land," and a multitude of camel-drivers have to convey it to the granary at Koseir, either being paid directly for their services or by a remission of taxes. Every driver receives a written statement of the quantity of grain delivered to him, and a sealed sample to show the quality. In the granary the corn is now poured into boxes of a basin or sand-glass shape, from which it runs by a small aperture into the measure of the grain-mesurer; like the dictating scribe, with whom we have already become acquainted (see Chap. I. p. 63), this functionary proclaims, in a peculiar monotonous melody, the numbers he obtains from his measurements. These must agree with those on the invoice given by the granary officials in the Nile valley; but they often do not agree, and the matter does not terminate without much noise and wrangling. The grain measured off is carried into the corners of the warehouse, where it rises gradually into great mountains to the tops of which the carriers ascend at every round by means of boards planted against their sides. The stored grain is now conveyed to the vessels, into the holds of which it is poured loose till they are full to the gunwale. No one is in the granary during the night, and the great door is sealed every evening with a large seal of clay. The superintendent is responsible for the quantity in the store between the time he leaves and the time he enters. When the grain has been conveyed by ship to Hedjaz, it is there measured afresh and compared with the sealed sample sent along with it—so that there is check upon check, and yet every grain of corn that has reached its destination would have plenty to tell of brothers lost, one after the other. It is not very easy to convict the camel-driver of putting a few handfuls of earth into each sack and taking out the same quantity of corn; and if he has a bad conscience he knows how to make the corn-mesurer keep quiet, who, by a certain method of placing the measure and other dodges, has it in his power to make the grain turn out more or less. It is a common saying that the grain-mesurer may heap up treasures in this world, but will never attain a high place in para-

disc. The ship-master, too, is not readily detected if, on the high sea, or even while in port, he allows his vessel to ship a sea or two so as to wet the cargo and cause the grain to swell. When subsequently measured, it will still be of the full bulk, but will contain fewer grains. From the surplus produced by thus levying such small requisitions or large quantities, many a person supports himself and his household the whole year round. The pigeons, too, cannot be altogether prevented from the more innocent thefts committed by them on the corn-heaps early in the morning. In storms many a bushel has to be thrown overboard from the deeply-laden vessel, and then the whole crew has to swear that this was done from necessity. Oaths are readily taken by the Moslimin, if they square with their interest, and the storm need not have been a very severe one.

THE PORT.

The harbour is a wide bay open towards the east, or rather a *sherm*, that is, an opening in a coral reef stretching along the coast and connected with it, not separated by an atoll. This opening is wider than in the case of other *sherm*s, which generally occur at intervals of a few miles and afford direct access and shelter for small vessels. The entrance is perfectly safe, and not rendered dangerous by rocks that are near the surface, though always covered by water. The harbour is available as such, however, only in the northern part of the bay, where it is deeper, and is protected against the north winds, which prevail by far the greater part of the year, by a coral reef running out in the form of a curve. Towards the south the bay becomes shallow through the accumulation of sand, and as no dredging-machine is employed the sanding up goes on year after year. The larger sized European sailing vessels and steamers cannot venture into the sheltered space behind the reef, and must anchor at a considerable distance out in the roadstead, exposed to the violence of the sea. Accordingly they prefer not to visit the port at all, especially as they are not attracted by commercial advantages. Even the Egyp-

tian mail and other steamers do not touch at Koseir, though they regularly visit the other ports of the sea, Suez, Jeddah, Suakin, and Massowah. Other steamers that call occasionally have generally met with some accident, or are brought by the want of coals.

Against east and south-east winds, which very often blow in winter, the harbour is quite unprotected. The bay, at other times so peaceful, now throws up high waves, washes the soil away where it consists merely of shot rubbish, makes breaches in the stone walls, and damages the wooden mole, while wave after wave rolls up over the bank of sand that forms the beach, and leaves a salt lagoon to remain until it dries up and forms a white streak of salt. The vessels pitch and roll in a dangerous manner, and, snapping their cables, run aground and go to pieces in the shallow harbour, or perhaps come into collision and smash each other. On such occasions it is by no means uncommon for the greater number of the vessels in the harbour to be wrecked. The whole shore is then strewed with grain and fragments of wreck. One can foretell the approach of such a wind by the rise of a small white cloud in the eastern horizon, after a period of almost perfect calm. A slight breeze, gradually increasing in strength, then rises, the suspicious little cloud approaches with astonishing rapidity, and in a brief space a raging, howling tempest prevails. With the noise of the wind are mingled the shouts of the sailors, who must be at their posts in order to secure the anchor and keep everything in order; while above all are heard the orders of the shipmasters and the cries of the women, anxious about those at sea belonging to them.

THE MOLE.

The wooden mole running out into the sea is always an animated scene. It is supported on wooden piles that are perpetually eaten into by the ship-worm, and always require renewal from time to time. Recently the government refused to repair it, or any public building of the province, and the consequence was that the half of the mole was carried away

by an easterly storm. The fishing vessels and passenger-boats lie beside the mole; on it boys angle for the fishes that swim in multitudes between the piles; here the ship-owner watches from a distance the labours of his people, while others take here their siesta, fanned by the cool breeze. Everything that comes and goes by sea has to pass the mole, where the custom-house officers examine with a searching look every passer-by. Goods to be shipped are brought from the custom-house to the mole, and thence are conveyed by boat to the vessel, those to be landed going through the reverse process.

ARRIVAL AND DEPARTURE OF VESSELS.

Much animation is exhibited when vessels are arriving or departing. This always forms an event. As soon as a vessel appears in sight, the fact is announced by the boys with a loud *Hariyeh! Hariyeh!* Others then look in the direction indicated, and if they can confirm the report they join in the cry. The news is thus carried through the whole town, and forthwith on the roofs or terraces of the houses appear female figures, the relatives of mariners or passengers expected. Arming themselves with telescopes the merchants or ship-owners proceed to the beach or to neighbouring heights in order that they may find out, as soon as possible, what ship it is that is approaching. On the entrance of a vessel an inquisitive crowd always collects on the mole, but they require to exercise their patience for a little. The sanitary officers must first take a boat and go on board the vessel to inspect it. At no time do the inhabitants show greater respect to the sanitary officials than at such moments, when it is a question of discharge or quarantine. If on account of the suspicious illness of a single individual the vessel is ordered by the sanitary officers to go into quarantine, or if the higher authorities have ordered quarantine to be enforced in the case of all vessels whatsoever, then communication with the vessel is prohibited, a quarantine watchman is put on board, the sanitary agent takes possession of all letters and papers, fumigates them and pierces them through and through accord-

ing to the professional practice, and finally distributes them. If pratique is given, a custom-house officer must go on board and inspect the goods before anyone can land. When the letters, which are rolled up like ribbons, have been distributed, there may be seen stretching along the mole, and up into the town, a whole host of readers, whose countenances and gestures plainly tell whether their business affairs are in a satisfactory state or not. The sailors and passengers hasten to their houses, after submitting to the embraces of all their acquaintances on the way, and appear in public several hours later dressed in their best clothes. The more important of them, however, are followed even into their houses; they have scarcely time to speak to their families, still less to wash themselves and change their clothes. Their reception-room is immediately filled with a crowd of people who come to pay their respects and hear the news, and who are treated to coffee. People arriving after a journey through the desert have also to hold such a reception, however fatigued they may be, such being the etiquette; they have not to pay visits themselves. Some time after the arrival of the vessel, generally the next day, the ship is unloaded. Perhaps a few camels have been brought by the vessel, the poor beasts being tied up in the hold so tightly as often to stiffen their necks. These are now pulled up by ropes and pulleys and let down into the water, and half-swimming half-wading they have to find the way ashore themselves.

The departure of a vessel is accompanied with a like amount of ceremony. Vessels that are about to cross to the opposite shore always set sail in the forenoon, never in the afternoon or evening. When the ship's papers are all in order, in particular when a declaration that he will not desert has been written for every sailor, and when also a bill of health has been drawn up, the vessel is boarded by a deputation from the governor, and by the sanitary officers in company with the owner, and other persons who wish to see their friends off. The papers are now handed to the captain, who gives a gratuity to the officials. Intimate friends and relations

embrace each other, exchange affectionate farewells, often with tears, and beg each other's forgiveness in case either has offended the other by word or deed. When people are setting out for the Nile valley also, it is the regular thing for their friends to accompany them for some distance, and take an affectionate leave of them. At last those that intend to remain re-enter their boat, wishing everybody a good voyage, the great sail is unfurled, a *fatha* is uttered, and the vessel now sails rapidly out to the open sea, followed by the gazes and good-wishes of the women, who assemble on the beach that they may also witness the departure of those belonging to them.

THE VESSELS OF THE RED SEA.

The native vessels trading in this sea have something antiquated and bizarre in their appearance. They are usually disproportionately short; the hinder part is remarkably broad and high, terminating abruptly in a sloping stern, and containing the cabin, which, being only between 5 and 6 feet in height, scarcely permits one to stand upright, and is not provided with berths or any kind of furniture. Behind, and sometimes also in the sides, the cabin has a few open air-holes; towards the forepart of the ship it is quite open or provided with a door, but the entrance is generally so encumbered with bales of goods that only a small aperture is left. The women and children are packed into the cabin, it being thought better to expose them to all the horrors of sea-sickness—which in this close stuffy hole is sure to attack them—than to the gaze of the crew and passengers. The roof of the cabin, or the hinder-deck, forms an open platform elevated high above the rest of the vessel, and is called in Arabic *kursi*, that is, seat or stage. As is also the case in the Nile vessels, this is the station of the steersman, who overlooks the whole ship, and governs the helm by means of a long lever projecting towards him. In a box before him, and lighted by an oil lamp, swings the antiquated compass, of Frankish origin but with Arabic improvements, and with stars in place of the points on the card. The after-deck

is also the best place for the passengers, since in these regions it is most agreeable to live in the open air. The sea breeze tempers the scorching heat of the sun, which may also be avoided by awnings, and in winter sufficient warmth may be obtained by the use of woollen wrappings, the sea breeze at this season rendering the cold less severe. The large space amidships is without a deck, and when the vessel is empty—as it usually is on the return voyage from Arabia—communication fore and aft is only maintained by means of planks, carelessly laid down lengthwise and crosswise, which cannot be traversed without danger, at least by the inexperienced. There is less danger when the vessel has a full load of grain in sacks or lying loose; but the vessel then rises only a few feet above the surface of the water, and, when the sea is high, the waves break over her, and drench both crew and cargo. The prow of the vessel always terminates in a curiously-twisted beak of varying length. The fore-part is covered with a short deck, on which the fire-place is situated, an earthen vessel or wooden box filled with clay serving for a grate. A sailor or ship-boy, who knows something about cookery, here cooks the daily food of the crew—the bruised barley and lentils—in a large narrow-mouthed copper kettle, and bakes the thin cakes of unleavened flour. The drinking-water is kept in a large quadrangular wooden trough. When water collects in the bottom of the vessel it is simply baled out, there being no pump. One man passes on the baling pitcher to the other, and the uppermost empties it into a wooden gutter laid crosswise over the ship.

The huge triangular or trapezoidal sail is hoisted on the mast by means of a system of pulleys. Whenever the sail is to be braced round, the ropes which are attached to the mast and impede the movement of the yard have to be unfastened, while the sail is let down a little. During this operation, which is quite different from that practised on board the Nile boats, the weight of the sail causes the vessel to heel over dangerously to one side, especially if a strong gust of wind has suddenly come on. Larger vessels have also a smaller auxiliary sail at the fore-end of the hinder-deck. The

flag is attached either to a rope belonging to the small hinder-mast, or to the top of the mainmast. The flag used is the Turkish—a white crescent and a few stars on a red ground. Vessels belonging to sherifs or descendants of the Prophet have the right to carry a green flag. The numerous native consular agents of foreign powers may show, and indeed are bound to show, on their house the flag of the country they represent, but for some time their vessels have been strictly prohibited from carrying it, "since they do not know the usages of the sea."

The greater part of the materials for the Red Sea vessels are brought from Jeddah and "India," the latter name as used by the Arabic seamen of these regions comprising also Yemen. The ropes and cables are made of palm and coconut fibre, the anchors never having chain cables. Teak, from "India," is the timber most highly prized in shipbuilding, and forms the planking of the vessels. It is very strong, and is said by its bitterness to prevent the attacks of the ship-worm, which is here very destructive. Partly on account of the ravages of this creature, partly to renew the water-tight coating, vessels are careened every five months at least, and are smeared with grease and lime, or sandarac and oil, and thoroughly caulked with raw cotton. From time to time also vessels are painted with a variety of angular figures, streaks, and stripes in order to improve their appearance, the colours used being chiefly white, black, and red. The after portion of the vessel in particular is the part thus decorated. Oak and pine from Syria and Greece are also used in shipbuilding.

The vessels receive different names according to their form and size. These names are quite different from the Arabic designation of vessels commonly used in the Mediterranean; some of them do not sound like Arabic at all, and might, perhaps, be traced back to Indian or Frankish roots. *Range* or *gange* is the name of a large vessel with a capacity of over 3000 ardeb,¹ and having a long beak; *dhow* is the name

¹ 1 ardeb = 5 English bushels, and corresponds to 8 *kele*.

of a similar vessel with a very large stern; a *baghleh* is similar but wants the beak. The most common form is called *sambuk*; it is somewhat smaller and has a short beak. *Katéra* is a smaller vessel, such as is used in the coasting trade and the pearl fishery; *feluka* is a ship's boat, *gurdî*, a fishing-boat, *eshkif* (French *esquif*), a cargo-boat for harbour service, *hâri*, a canoe made out of the trunk of a tree.

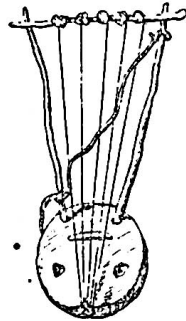
THE SHIP'S COMPANY.

The captain of the vessel, *reyis* or *nachude*, has only to attend to matters of administration. He is responsible for order being kept in the vessel and for the money required in managing it, he has to account to the harbour-police and the sanitary authorities when required to do so; but of seamanship he is often quite ignorant. The son or a relative of the owner may hold this post, or the owner himself when he accompanies the vessel. The professional shipmaster is the steersman (*ruban*), but generally the steersman and the captain are one and the same person. The crew (*taifa*) is generally numerous relatively to the size of the vessel, since the defective equipment must be counter-balanced by the number of the men. The common number is from six to ten, but larger vessels may have eighteen or twenty; among these, however, are generally a few passengers who have got themselves booked as sailors in order to avoid the numerous formalities and expenses imposed by the authorities. Over the common sailors is placed a mate or boatswain (*mokaddim*), and under them are one or several ship-boys. The sailors are either free natives of the sea-ports on the east and west coasts, with some Egyptian Fellahin among them, or black slaves either belonging to the owner or hired from some one else. Their dexterity is wonderful, especially that of the blacks. Having nothing on but a cloth round the loins and a quilted skull-cap, they leap with truly monkey-like agility and ease over the planks that serve as gangways above the hold; with a spring or two they scamper up the mast, seizing a rope with their hands and pressing

their feet against another near it: they even practise the still more monkey-like habit of seizing the latter with their big toe. In addition to this quadrumanous faculty, the black monkey-like race of men are distinguished by their long arms, slender feet, small calves, projecting jaws, low forehead, and flat nose, as well as by their fondness for bellowing and grinning; but the Semites likewise, and, as the sculptures of the ancient Egyptians show, the Hamites also adopted to some extent this quadrumanous habit. Unlike the European sailors, whose strong point is said not to be swimming, the Arabic sailors are as much at home in the water as on ship-board. Not having first to take off their clothes they are at all times ready to jump into the water (which is always comparatively warm here) in order to stop a leak, or to dive down and put the anchor to rights, or to swim ashore though the vessel is a considerable distance from land; and it is said that when in quarantine they frequently visit their relatives at home under cover of night.

It is pleasant to see and hear them at their work, as they always lighten their toils with singing when engaged in any common task. When rowing they sing, like the mariners of the Nile, but the words and the airs are different. If the sail is to be hoisted, for instance, a leader will begin by singing, in the highest falsetto he can produce from his throat, a meaningless word or two, such as *moluchiyeh* (the spinach-like plant already mentioned), and at once the chorus of seamen at work follows with "moluchiyeh" in the deepest bass, giving the sail a heave up at the same time. The same thing may be seen when a ship is to be launched, an operation which always requires a large number of men, since there is no machinery for the purpose. Such scenes exactly resemble the transporting of colossal figures as depicted on the ancient monuments. There an overseer may be seen posted at some elevated point and giving his orders by clapping his hands, hundreds of naked workmen tug at the ropes in order to bring forwards the sledge upon which the colossus is placed, and among the ancients, too, the work always went on with singing. When, however, a work of considerable magnitude

is finished, say, for instance, that a ship has been built, or that a vessel has safely landed after a long and perilous voyage, or that pratique has been received after some days' quarantine, then the naked and many-coloured chorus of sailors execute a *fantasie*. The strange quavering falsetto of the leader is again heard, the chorus chimes in with a hoarse, Tartarean, hollow, roaring voice, one or two of the sailors beat the small sieve-like hand-drums, another prepares with a mallet one of the skins of his drum while he strikes the other with his hand in order to leave no means of producing music unemployed; the rest grin, and dance, and clap their hands. The artists are able to continue for hours on end with the same aria. This certainly innocent *fantasie* is too barbarous to have been an invention of the Arabic sailors, who, however, join in it with as much heartiness as if it were their national song; it can only have come from the land of the bellowing blacks, but seems to have been used on this sea for hundreds of years, and is likely to continue for as long. In moments of leisure, especially on quiet moonlight nights, the sailor takes his lute (*támbara*), an instrument to be found on board every vessel, and sings and plays the peculiar languishing Arabic airs, surrounded by a crowd who earnestly listen or join in themselves.



Mariner's Lute.

The lute consists of a hemispherical body, which was originally a drinking vessel or a melon, having a skin stretched across it, and two diverging bars projecting from it and united at their ends by a cross-bar. To this several strings of gut, generally five, are attached; these converge towards the lower part of the body, to which they are attached, and in the middle of which rises a bridge, as in the violin, to keep them tight. The entire instrument is made by the sailor himself.

NAVIGATION.

The native vessels in the Red Sea are almost exclusively employed in the coasting trade. It is only vessels of a certain size and tonnage (about 800 ardeb) that venture to take the open sea and cross from one shore to the other. But such a voyage is always a risk; the mariner waits for a favourable wind before venturing on it, and it often lasts eight days, and sometimes as much as fourteen. No Moslim sets any value on time, however. Vessels always try to make the opposite coast as soon as possible, and to select the shortest run, keeping well inshore for the rest of their voyage, at some distance from the coast reef, to be sure, but always in sight of land. They regularly pass the night in one of the numerous harbours or shermis. With a favourable wind the opposite coast comes in sight in the course of the next day after setting sail, or if the nearest point of the opposite coast is to be reached, the port of destination being, for instance, El Wudj, then land may be seen early in the morning of the next day, that is, in about twenty hours. Vessels sailing from Koseir to Jeddah or Yemba usually endeavour to make the island of Gebel Hassan. The voyage from Koseir to Jeddah usually occupies from six to twelve days, from Koseir to Yemba three to five. The return voyage lasts much longer, since in summer north and north-east winds almost constantly prevail in this part of the sea, becoming less violent, or ceasing to blow altogether only after it is well through the afternoon; in winter they are often interrupted by south-east and east winds. The return voyage from Jeddah to Koseir therefore occupies from sixteen to forty days, from Yemba twelve to twenty-five, from El Wudj three to ten. As the last-named port lies a little further to the south than Koseir vessels have to work their way northwards along the coast for several days in order to get the north wind to take them across to Koseir. From Suez to Koseir is a voyage of three to eight days, from Koseir to Suez of as many weeks. This prevalence of the north wind (at the mouth of the sea it gives place to the south wind), combined with the numerous

reefs and currents, is one of the chief impediments to navigation on the Red Sea, rendering it almost unnavigable for large sailing vessels, which always go round the Cape of Good Hope, notwithstanding the opening of the Suez Canal. These obstacles can only be overcome by steamers and the smaller Arabic sailing vessels. The ancients always started on their voyages in the summer months and returned in winter when the winds are more changeable and favourable. Like other seas the Red Sea is also subject to storms. They are fewest in summer and most common in the beginning of winter, especially in November. Storms from the north often last a fortnight, those from the east and south-east only a few days. In a violent storm the captain does not hesitate too long before causing part of the cargo to be thrown overboard in order to lighten the vessel, vessels being generally overloaded and sunk almost to the water's edge. Native vessels are very liable to meet with this misfortune, and the owner of the goods, like a good Moslim, after a few lamentations, resigns himself to his fate. Marine insurance is unknown. Among the citizens, accordingly, there are many ups and downs of fortune. When the ship is thus lightened, and after the large sail is furled, it pitches about and drifts with the waves; but there is generally time to take refuge in some sherm or other. If, however, the danger of sinking is too great; if a leak cannot even be stopped up with a flour-bag—a tried and approved method; if, as is very often the case, there is no boat on board; and if, lastly, there is no time to build a raft, then the bold skipper, after calculating the draught of his vessel and the height of the breakers, in despair steers straight for the coral reef, which is always flat and with shallow water above, and runs his vessel aground on it. The vessel must now go to pieces; but it is almost high and dry. The men jump from the wreck, and at once, or after swimming towards the land, get a firm footing in the still water on the reef. But this does not always happen; some even maintain that it is impossible. However, it is very rare in this sea for Arabic vessels to founder with all their crew, and so far as bare life is concerned there is more safety in a sambuk, miserable as

it appears, than in a fine European steamer, constructed and fitted up in the most substantial manner.

USE OF THE COMPASS AND STARS.

The larger vessels generally carry a compass, having stars marked on the card as already mentioned; but the steersman does not make much use of it, and mere coasters that never cross the sea, but always keep to the same side of it, have no compass at all. The mariner, so ignorant generally as not to be able to read, directs his course much better by the stars themselves, which are seldom obscured by clouds; and since he usually remains near the shore, and sails only by day, except when crossing the sea, the mountains form excellent landmarks. Local knowledge is therefore his chief requisite. In this quarter practical astronomy generally speaking plays an important part in seamanship. Besides the north star there are also certain other guiding stars. A vessel's course is to be directed to a point directly south-east, for instance. Well, the Scorpion rises here, and accordingly the mariner keeps this constellation continually in his eye, even after it is high in the heavens. The compass-card also is marked in accordance with this system. It is divided into thirty-two segments by lines drawn through the centre, the chief of which passes through the north and south points, and separates the right or eastern half of the circle from the left or western. On the former are marked the points of rising, on the latter the points of setting. Another important line passes through the east and west points, marking the rising and setting points of the sun at the equinoxes. Then come the names of the following stars, going from north to south:—1, *Gah* or the north star; 2, *Farkad* or the Little Bear; 3, *Naásh* or the Great Bear; 4, *Naka*, corresponding to Cassiopeia; 5, *Ayuk* or Capella; 6, *El Uákua*, corresponding to the Lyre; 7, *Láhémir* or *Semák*, Bootes; 8, *Tureya*, the Pleiades. Then follows the east point and the southern constellations:—9, *Gauza* or *Ozi*, Orion; 10, *Mirsam*, Sirius; 11, *Eklil*, Antares in Scorpio; 12, *Akrab*, Scorpio; 13, *Hamarén* (?);

14, *Suhél*, Canopus; 15, *Sindibar* (?); 16, *Kutb*, the south polar star. The two last are not to be seen outside the tropical zone. The stars of the zodiac that do not correspond with those just mentioned are known only by the learned.

MARINER'S CALENDAR.

In calculations relating to the seasons of the year, and the winds that are so regular in this quarter, the Arab mariners also go by the stars. Their usual calendar, which perhaps has never before been written down, is as follows:—

1. *En naâm es-sogheyr* or *Robéj*, "the little sun," corresponding to the 20th or 21st of February. No skipper will set sail on this day, but will wait for the strong winds, the *Husumât*, that blow about this time. In the time "between the suns" a calm called *Hauâl* prevails, though it is varied by south-east winds called *asieb*. At the end of this period, or at the beginning of the following, strong winds blow for some days, receiving their name from the constellation *El 'Aua* that rises at this time. This constellation is said to be one of the twelve resting-points (*mensil*) of the moon according to the Mohammedan theory.

2. *En naâm el Kebir*, also called "the great sun," the vernal equinox, that is, the 20th or 21st March, is regarded as the beginning of summer. The thirty or forty days following bring alternately calms and strong gusts of wind, *chaflat en-naâm*; there are also high tides at this time.

3. *Dufân et-tureya*, that is, the setting of the Pleiades. Orion and Sirius also set about the same time, that is, towards the end of April. This period lasts for forty or fifty days, and is called also *Arbainet es-sef*, or the forty days of summer; it corresponds to the period known as *Chamasin* in the Nile valley. It is characterized by frequent calms and south-east winds.

4. *Modelli* and *Mogelli*, literally, "the sinking" and "the brightness giving," an expression originating in the Nile valley. At this time the date twigs sink, while the fruits are forming, and the latter soon become brightly coloured. This period begins with the reappearance of the Pleiades (3d June). Moderately strong north winds blow at this time, and sometimes hot west winds (the *simoom*), especially in the mountains. The latter, however, are rare on the coast, being intercepted by the mountains.

5. *Tuêba*, that is, the Hyades, and *Kurân*, the horns or foremost stars in Orion, now rise, that is to say, about the beginning of July. North winds prevail for twenty days. Then the whole of Orion appears, and there is about a fortnight of calms; this period is called *Gezau*, and is much taken advantage of by the pearl-fishers.

6. Time of the Great Bear or Wain (*Naâsh*) and of Sirius, correspond-

ing to our August and the dog-days. North winds generally blow, though there are a few calm days between the rising of the third and fourth stars of the Wain, while Canopus (*Sukél*) shows himself. This period is divided into several, named according to the stars of the Wain that rise in succession, *el auellén*, that is, the two first, being followed by the periods of *Sukél*, and *er-raba*, that is, the rise of the fourth star.

7. The remaining stars of the Great Bear, that is, those of its "tail," follow in due order. *El Chámis*, the fifth star, brings a calm and great heat. The rising of the sixth star, *Es-sadis*, corresponds with the Nerus day or beginning of the Coptic year (11th September), and brings on a few days of brisk, or often stormy, north winds. The seventh star brings a calm, *Haua! es-saba*, that lasts for about a fortnight. This seventh period corresponds nearly to our September. During the whole two months governed by the Great Bear there are very low ebb-tides; according to the proverb, as the Nile rises the sea falls.

8. Time of *Kakéa* (*!*), corresponding to the beginning of October. North winds generally prevail at this time.

9. Time of *Lahémir*, that is, Bootes, a portion of October and a portion of November, the time of the setting (*!*) of the star just mentioned, which is dreaded as a mischievous divinity. At this time sudden and irregular storms, especially from the east, often burst forth after periods of perfect calm. Thunder and rain are also frequent.

10. *El Akrabiych*. The Scorpion now appears, and after this period of seven days follows the *Arbainiet esh-shita*, or the forty days of winter, with frequent calms and moist south-east winds. It occupies part of November and part of December, and has a character similar to the *Arbainiyeh* of summer.

11. Time of the *Nasr* and *Nusér*, that is, of the Lyre and Eagle, in December and January. This is the chief winter season; cold cutting north-west winds (*Masriyeh*) now blow, alternating with milder but often stormy north winds.

12. *Es-siada* (*!*) begins on the 18th January, the day of the "baptismal feast" of the Copts, well known as the coldest day of the year. The winds at this period are irregular, the north and cold north-west being the most common.

Acquaintance with these periods, which the experience of mariners has established, is, perhaps, not without practical value, even although the dates do not always coincide with the phenomena actually observed. Besides the winds the mariner has also to contend with powerful currents that defy calculation; this greatly increases the difficulty of navigating the Red Sea. The currents are called *medds*, properly the name for "flood," and it is common to speak of a *medd yemáni* and a *medd shámi*, that is, a current towards the

south or Yemen, and one towards the north or Syria. They are always changing. There are also currents from east to west and *vice versa*.

TRAFFIC.

The following table, taken from the books of the sanitary office, shows the amount of shipping that entered the port of Koseir in the year 1863-64, when trade had not sunk so low as it has since done:—

Vessels under 1000 <i>kele</i> (at $\frac{1}{3}$ th of an ardeb).	180
Vessels of 1000 to 4000 <i>kele</i> ,	154
Vessels of 4000 to 12,000 <i>kele</i> ,	79
Total,	413

Of these 74 came from Yemba, 84 from Jeddah, 64 from El Wudj, 7 from Suez, 5 from Moilah. Of small craft 123 came from Gûeh, 21 from Safaga, 13 from Abu Munkar, 5 from Ras Benas, 3 from Suakin, 2 from Gebel Hassan, 2 from Gimse, and 1 from each of the following places—Wadi Gemal, Jafatineh, Tor, Lassat, Umm Muhammed, Tuer, Sheikh Hamed, Gad umm Mohammed, Shurum, Debah. The number of passengers, including pilgrims, was 5954.

FISHERMEN.

From the mariner to the fisherman is but a step. In moments of leisure, and in the evening, when he comes close in-shore, the mariner casts his line, and tries to procure in this way an addition to his scanty supper. The fisherman, when he sails out to sea in his boat, must be acquainted with the elements at least of the mariner's craft; and when he is the owner of a boat of considerable size he makes longer and shorter runs along the coast, carries millet to the Bedouins, and returns with a boat-load of fish and pearl-oysters. The fisherman who fishes in his boat in the bay, and not far from the shore, contents himself with a stone for an anchor; instead of using a sail he rows. If, however, the wind is too enticing, he sometimes erects an oar as a mast, and, pulling off his

shirt, extends it as a sail; or he may take a small sail along with him. With this he often ventures far out into the open sea. His longest voyages on the coast are made by preference towards the north, and he works his way northward by taking advantage of a calm or a south wind, and also of night, when the sea is generally quieter than by day, so that, having reached his destination, he may be able to return quickly by the aid of the north wind. He does not care to sail to the south, because the prevailing north wind renders his return difficult or too uncertain. Accustomed to the duties of a sailor, the fisherman occasionally engages himself in this capacity on board a large vessel, in order to repair his finances, which his calling of fisherman alone does not keep in a very flourishing condition. For as the tax on fish is high he has to give up to the government a third of what he obtains by the sale of what he catches; in stormy times, too, he has often to remain in enforced idleness for weeks on end; and if he does make a large catch the profit he derives from it is not very great, fish being cheap in the small town, especially during calm weather, when everybody catches fish for himself, and the demand of the inhabitants is soon supplied. The fishermen also maintain that there is not now the same abundance of fish as formerly. Except for the tax referred to, fishing is free to every one who understands the business. Everybody, as a boy, has practised the angler's art once in his lifetime, and even in riper years the well-to-do citizen, who at other times has nothing in his head but buying and selling, or it may be the soldier, will sometimes feel a longing come over him to cast a line once more. Accordingly he takes up his post on the mole, or in a boat in the harbour, or on the edge of the coral reef, and sets to work. On the reef there may often be seen, especially when the lowness of the tide allows ready access, whole rows of fishers of all ages, complexions, and conditions, amateurs and professionals, in the costume of Neptune, that is to say, having a cloth round the loins and one round the head, the latter being the blue shirt of which they have divested their bodies.

When the fishing is interrupted by storms at sea the fisherman spins thread for nets and lines, using a conical spindle which he causes to revolve by rolling it on his knee.

In spinning stronger cords he uses for spools two longish pieces of wood with a small cross-piece at top. Sitting on the ground he twirls one spool with his right hand while he holds the other with the sole of his right foot, the thread passing through and up between the great and the second toe. Round the knee, which is bent at right angles, the thread is several times wound. With the left hand the fisherman twists the two strands together. The twine for his nets is spun in this way.



Black Fisherman making Thread with the Spindle.

The usual method of fishing practised by the towns-people



Native Fisherman spinning Twine.

is with hooks and lines, the cast being made by the hand

alone without the assistance of a rod; the fish-eating Bedouins, however, use the spear. The bait attached to the hooks consists of fishes of various sizes, or morsels of fish, crabs, worms, sea-weed, &c., according to the kind that are being angled for. As many fishes only seize living prey, the fishes that are to serve as bait for them are taken alive in a basket, which hangs over the side of the boat and dips into the water; and if they are dead, an attempt is made by rowing rapidly to deceive the predacious fishes by giving the bait a plausible appearance of life. Some fishes can only be caught by night, but the usual time is early in the morning, when the sea is generally calmer than at other times. The fisherman is afoot even before the morning-star in order first to provide his bait and then to catch the right fish with it. Nets are much less frequently employed, the kinds used being the casting-net, ring-net, and trammel-net, but only in shallow water—in the harbour or on the reef. A hoop-net, such as is often used in rivers, is useless in the transparent water of the sea. When the splendidly-coloured fishes are seen swimming about in multitudes near the slope of the coral-bank, a person is apt to think that he has only to plunge in his net, but he would find that no fish will enter it. Besides this, a hoop-net or a trammel would soon get entangled among the shrub-like and branching corals. When the fishermen discover in the harbour some spot which is much frequented by a shoal of fish they spread a net between their boats, while some proceed to attack the shoal, and try to drive the fishes against the net by throwing stones at them, hissing, and making a noise. The casting-net is generally employed from the shore. Stooping down close to the ground the fisherman lies in wait for a shoal of fish swimming towards the shore; then leaps quickly into the water and throws the net, which is loaded with pieces of lead, towards the fish, so as to make it entirely envelop them. The ring-net is set upon the reef. The fishes that swim towards the shore when the tide is rising turn back towards the deep-water again when it is falling, and in this way pass into the labyrinth, the entrance of which is turned towards the land; entangling themselves in its mazy

folds they soon fall a prey to the fisherman. The beautiful and large parrot-fishes, in particular, are caught in this way, and being cut open, salted, and dried, become a commercial article. Some fishes are also caught by a basket with a funnel-shaped entrance projecting inwards above, and which allows the fish to get in, but prevents them from finding their way out. The basket is baited inside, generally with dough, and then set at some particular spot.

The larger marine animals, such as dolphins and the remarkable "mermaids" or "sirens," are caught by the harpoon, but people do not care much to kill the dolphins because they appear such amiable animals, and groan in a human sort of way. The sirens are cetaceous animals of moderate size, whose teeth are prized as ivory, and their thick hide as leather for sandals. According to some commentators the Jewish ark of the covenant is said to have been made of the hide of this animal. The preferable way is to take them by a large strong net, and to watch until they pay their nocturnal visits to the clefts and ravines of the coral-reef, where they browse like cattle upon the marine herbage. As soon as one has entered a narrow gully the entrance is blocked by a net. Feeling itself imprisoned, the beast plunges about, but entangles itself more and more in the net, in which it is now drawn towards the reef. When brought within reach it is beaten to death, or, according to the more common practice, drowned, for being a mammal it requires to come to the surface every now and then to breathe, and dies if forcibly kept too long under water. But these animals are exceedingly shy and wary, and not many people understand how to capture them.

PREPARATION OF THE FISH.

A common method of cooking fish is simply to fry them in oil; another method is to roast a whole fish on the open fire without oil or fat, or the fishes may be boiled with onions (called *seyadiyeh* or fisherman's food) either with or without rice, but they are never simply boiled in water. The flesh

of the larger fishes is also chopped up and made into dumplings (*kufra*), or with the addition of onions and garlic into fish sausages (*semak mahohi*). The smaller fishes, as sardines, are packed up in layers with salt and kept until they have become quite tainted; when in this state they are highly prized by many and considered very wholesome and appetizing food. Fish that have been dried and salted are either boiled or are eaten raw, when they are as hard as stone. Fishes that have peculiar shapes, such as globe-fish, sharks, rays, and eels, are an abomination to the inhabitant of the town, who can easily get other sorts; the ichthyophagous Bedouin, on the other hand, prefers these as being cheaper and sells the dearer sort. The flesh of the sea-cow, being that of a mammal, rather resembles beef than fish, and is readily eaten by the Moslimin although it has not been slaughtered *secundum artem*. For, says the doctor of the law, everything that comes out of the sea is fish, and may lawfully be eaten without being slaughtered in the proper way. The flesh of dolphins and turtles is similarly treated. Most fishes collect in shoals at the spawning season, and are then taken in multitudes, especially a number of those of the mackerel and tunny kind. They often come in such vast shoals that a Greek, for instance, who understood better how to catch and cure them might drive a thriving trade. The native of the country knows no other method of preserving them than the rude methods of drying and salting already mentioned.

OTHER MARINE ANIMALS MADE USE OF.

The Red Sea is very rich in invertebrate animals, but of this class of products it is only the pearl-oyster and the black coral that are made any use of, except now and again by a European naturalist, or perhaps a wandering Greek trader. The natives seldom trouble their heads about such things. The only marine animals used as food are the gigantic *Tridacna*, large molluscs of the genus *Strombus*, and others of that of *Pteroceras*. These are gathered on the reef by Bedouin

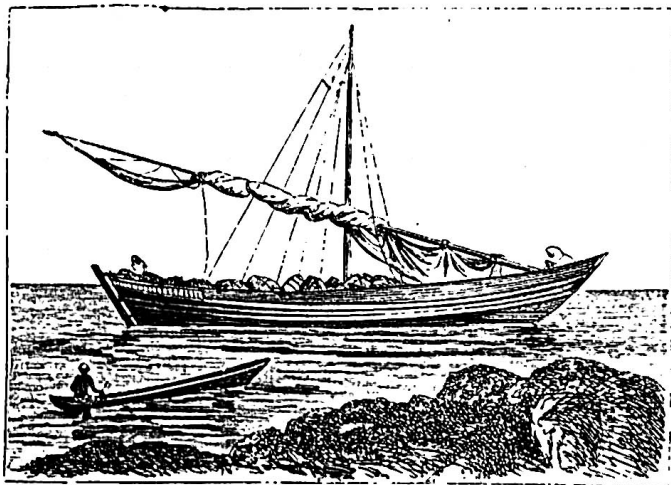
women, who boil and eat them themselves, or sell them to the merchants of the place, and thus they reach the Nile valley. It is only the bodies of the animals boiled and dried that are met with as articles of commerce, and very indigestible these fleshy lumps are. The eating of any others of the invertebrate animals uncooked, such as oysters, mussels, sea-urchins (the ovaries of), limpets, cuttle-fishes, crabs, and even the lobster elsewhere so highly esteemed, is regarded by the Moham-medans, and generally also by the Christians of the place, as a barbarous practice, and one of which only the unclean Frank is capable, while the flesh of hyenas—slaughtered in accordance with the rules on the Koran—is eaten without remark. However, these opinions or prejudices regarding the value of animal foods are mostly of a local nature, crabs, and even the man-murdering shark, being eaten every day at other places on this sea; just as in the Nile valley field mice are at some places looked upon as dainties (they were so also among the Romans), while at others their flesh is regarded with disgust.

To pay money for mere rarities is considered ridiculous by the inhabitants, though the pilgrims purchase some pretty shells as souvenirs, namely, porcelain shells (*Cypræa*), oliva shells, cone shells (*Conus*), and the beautiful Pharaoh's shell (*Monodonta Pharaonis*). The well-known Triton's-horn shell is blown as a horn by jugglers and merry-andrews, as well as used for holding water; the shells of the *Cypræa anulus* are commonly used as counters in games, the valves of the tiger's tongue shell (*Lucina tigrina*) as castanets for girls. Large quantities of the *Columbella menlicaria* are collected on the reef—generally by Bedouin children—and being sold to the merchants of the place are sent in bagfuls to the Soudan, where they are used for necklaces, and have a money value. In this quarter shells are worn as ornaments only by children, especially little Bedouin girls; but they are frequently hung about children, and animals also, as amulets. The opercula of univalves are of some commercial importance, being burned by way of incense when spells and incantations for summoning spirits are employed, the smell being supposed

to attract them. The thick chalky operculum of the round-mouthed shell (*Turbo*) is laid upon scorpion stings. Sponges also are articles of trade, but their quality is inferior, and they cannot compete with those of the Mediterranean. They are gathered on the reef, and are then washed and macerated by being buried for some time in the sand. The use of the sponge, however, is unknown in Egypt, the inner bark of the palm being employed instead. The red organ-coral is sometimes collected by Greeks; it is said to serve as a colouring material for painting houses. Blocks of the kind of coral that forms reefs are frequently used as building material in the coast-towns, as it is easier to carry them from the sea than to transport stones from the mountains.

THE PEARL-FISHERY.

The pearl-fishery is an industry of some considerable im-



Vessel used in the Pearl fishery.

portance. It is not a government monopoly, being free to every one, but on the goods being landed the customary import duty of 8 per cent. on the value must be paid; a certificate to this effect is then given, and must be shown when

the goods are taken to Cairo and other important marts as well as when shipped at Alexandria for exportation to Europe. The pearl-fishery is almost exclusively carried on by Arabic Bedouins, who have settled at various parts of the coast as well on the African as on the Asiatic side. The chief place where the trade in pearl shells and pearls is carried on is Jeddah; but Koseir also is not without importance in this respect.

In the middle of March or beginning of April, when the atmosphere and the sea have become sufficiently warm to allow of diving being carried on, the Bedouins start with their light barks and a number of *huris* or canoes, and proceed north and south to places which they know to be productive. The crews mainly consist of black slaves, three or four to each vessel, the owner, and another Bedouin or two, also going along with them in order to superintend and direct. The vessel takes shelter in one of the numerous *sherm*s or harbours. The divers seat themselves in the canoes, which, being easily capsized, cannot carry more than two men; but they are skilfully managed with the oar, which terminates in a circular plate. For diving and navigating the canoe, the one thing needful is calm water. Those engaged in the business accordingly take advantage of the periods marked as calm in the calendar already given. The first and chief fishing season is from the middle of March to the end of May—*En-naâm el kebir* and *Dufân et-tureya*. In the windy periods following the vessels return and disembark their take, which is mostly sold at once. The second fishing season is the calm period *Gezâui* in the end of July, and that of *Naûsh* in August; the third is the time of *Lahemir* in October. The last two are very far behind the first in productiveness. In the winter months the fishery ceases altogether. The best time of the day is the quiet early morning. The diver in his canoe then peers down into the depths, and perhaps assists his vision by dropping a little oil on the surface of the water—hence these vessels always carry a supply of oil with them. The pearl shells (*Meleagrina margaritifera*) are found between the corals, to which they are

attached by their byssus, the smaller sized ones also on the reef, the larger in deep water on the slope of the reef, and in front of it. They have accordingly to be brought to the surface by diving, in which these Bedouins, and more particularly their black slaves, display an extraordinary dexterity, using no apparatus. As soon as the diver spies a shell he leaps into the water, swims downwards head foremost, tears off the shell, and swims up again with his booty in his hand. When the shell is situated at a great depth he often hangs a weight to his feet in order to get down more quickly; this he throws off immediately he is at the bottom, and he either swims up himself or is drawn up by the cord attached to the weight. These divers render the greatest services in recovering packets of money and other articles that have been lost through shipwrecks, they can even employ the crow-bar at the bottom of the sea to enable them to get things out of narrow crevices in the rocks or similar positions, when the spot where they have sunk is in some degree known.

But to attain this skill they must practise diving from their youth up. The Bedouins are too fond of their comfort to dive themselves, and therefore train their slaves to it, whom they buy when boys and often treat with great cruelty until they learn.* The slave, while still new to the work, will be shown a shell at the bottom and told to fetch it. If he does not bring it up he is beaten, bound, and flogged, his life is even threatened, and his scanty food is his only reward when he brings up the most valuable shells. The pearl-fishery in which slaves are thus employed is in a highly flourishing state, but it exhibits one of the worst aspects of slavery, and one which it is time steps were taken to abolish.

The shells when collected are exposed to the sun, when the animals soon die and the valves open. The fleshy tissue is now detached and carefully examined to see if it contains any pearls. The valves are next separated from each other and heaped up singly on board the vessel; for this reason it is seldom that a fine and complete specimen of a pearl oyster is met with. A good pearl is always a rarity, and it would

not pay to fish for pearls alone if mother-of-pearl were not at the same time obtained. The Bedouins know the value of pearls only too well—they can often be bought cheaper in Europe. Here, however, they may sometimes be got at a low price in an underhand way, the slaves having secreted them and sold them behind their masters' backs. The yellow pearls, which are more highly prized in the East than in Europe, are said to belong to a different species of oyster—the *Meleagrina cocca*. The genus *Tridacna* also produces pearls, but these are ill-coloured and worthless. The very small pearls are pulverized by the natives and used as eye-powder.

A rational method of proceeding is not to be expected of the Bedouins. Thus they take quite young shells as well as old ones, since all add to the weight and bring money; and though one person were inclined to leave the smaller ones in order to let them grow larger by next year, he might be sure that some one else would take them in the interval. It is no wonder then that they are now obtained in smaller quantities than formerly, while the demand for them has increased. It is extremely rare for the divers to meet with injuries from the attacks of large fish. The hammer-headed shark and the saw-fish are most dreaded.

When diving cannot be carried on on account of the wind, the Bedouin occupies the time in fishing with the ring-net on the reef, the fish being salted and dried in the manner already alluded to. Such salted fish always form a portion of the cargo of a vessel engaged in the pearl-fishery. Turtle-fishing is also carried on as an accessory occupation, the kind chiefly caught being the *Chelonia imbricata*, which affords the valuable tortoise-shell; sirens also are harpooned and eaten.

The Bedouins sell their pearl-shells to the native merchants and other inhabitants of the towns, who follow them to their settlements, so great is the demand for their goods. Some of them have a regular contract with a merchant, who is called their *amir*, and who advances money to them, supplies them with rice, corn, &c., looks after their business matters in the town, provides lodging for them when there,

and so forth, while they hand him over at a low rate all the shells they get. The merchant sends the goods on camels to the Nile, and then down this river to his agent in Cairo, or he brings them there himself, where they are bought up by European wholesale dealers. The Bedouins sell them at so much the hundred or the thousand, but in Cairo they are sold by weight. Three sorts are distinguished in commerce:—the large old *moghds*, which have the layers of mother-of-pearl very thick, especially near the hinge; those of medium size; and those of small size (*aida*); a few very small ones are thrown in with every hundred. Of the larger-sized sort one to three double shells weigh an *oka* (that is about 2½ lbs); in 1874, when there was a great demand, the *oka* cost 12 to 15 government piastres according to size, that is to say, 2s. 6d. to 3s. Many of the shells have worm-holes bored through and through them, and are worthless. In other cases certain boring worms (?) have made a lodgment under the uppermost layer of the shell, penetrating from the border inwards, and producing a slight elevation which is known as the "water." This imperfection is of little consequence, as no perforation is made through the shell. If the mollusc has been dead for a considerable time the shell loses its mother-of-pearl, becomes of a dull chalky appearance, and is worthless. Among the ordinary pearl shells there is generally found another sort with a bluish border; this belongs to a different species, the already mentioned *Meleagrina cocca* (Arabic *bulbul*). It always remains small, and affords a mother-of-pearl that is of little use.

The black coral (*yúsr*), which belongs to the genus *Antipathes*, is also obtained by diving, but with greater difficulty than the pearl-oyster, as it is usually situated in very deep water, and is so firmly attached that it requires to be sawn off. The fleshy coating of this shrubby animal-plant is stripped off, and the black, ebony-like, horny axis is converted by native turners into rosaries, mouthpieces for pipes, and the like, and is rather high-priced. The red coral is not met with in this sea.

THE COAST BEDOUINS.

The coast Bedouins, of whom mention has repeatedly been made, are genuine Semites, pure Arabs, who, coming from Arabia, have settled at several places on the African coast of the Red Sea. These settlements, which are likewise ports for their light vessels, are called Gûeh and Safageh, one and two days' journey northwards from Koseir. They seem to have existed only for two or three generations, the oldest inhabitants saying that they crossed over from Arabia with their fathers. There are three tribes—Absî (plural Abs), Asmî (plural Anâsim), and Irêni (plural Irenât)—which prefer to live apart though they are not at enmity with each other, and even sometimes intermarry. The cause of their emigration from Arabia seems to have had something suspicious about it, since the Bedouins of Arabia call them "refuse" (in Arabic *achass min el arab*); still they continue to keep up a friendly intercourse with the Bedouins of the Arabian coast, who have similar settlements there (Gelel Hasan for instance), and occupy themselves in the same way. Their dialect is a genuine Bedouin dialect of Arabic. To the Ababdeh Bedouins, however, they remain strangers; and intermixture with them through marriage is never thought of, though they sometimes take wives from Koseir.

These Bedouins are exclusively engaged in seafaring pursuits on the coast, especially in pearl-fishing. Their habits are no longer nomadic, they do not even keep camels, but hire them when necessary from the Ababdeh. At most they have a few sheep and goats, but these they do not take out to pasture, but keep them and feed them at home. Their country is the sea and the coast, and they are still so far nomads in that they are absent from home a great part of the year. In the winter months, however, they return to their native tents at Gûeh or Safageh, where their families have meantime been keeping guard. In winter they occupy themselves in selling their pearl shells, and in felling and conveying in their vessels to the market at Koseir the shorawood which grows luxuriantly in the neighbourhood of their

settlements. It is strange that, although they are skilful in catching the larger marine animals, such as sirens, turtles, &c., they are so poor hands at angling for fish that the Ababdeh in their neighbourhood, and even fishermen from Koseir, catch fish and sell them to them in exchange for corn, while the stranger who hopes to regale himself there with fish is disappointed. In modern times, when so many steamers have been wrecked on the innumerable reefs of the Red Sea, or have had to throw cargo overboard, the wreckage thrown up on the beach has been a rich source of income to these Bedouins. Through this and the fishery for pearl shells, which in recent years have risen immensely in price, these Bedouins have become very wealthy, and the goldsmith at Koseir finds his time more than taken up in manufacturing gold and silver ornaments for their women.

The chief food of these Bedouins is not millet, as among the Ababdeh, but rice. Of this unleavened cakes are made, either with or without fat; baking, properly so called, they



Tent of Coast Bedouins.

do not understand. They also indulge in flesh meat more frequently, and altogether do not live in such a miserable manner as the Ababdeh. Notwithstanding that they have adopted such a settled mode of life they live like their forefathers exclusively in tents, but these are far better, cleaner, and more habitable than the tents of the Ababdeh. The perpendicular side-walls and the sloping roof which are formed of a firm woollen stuff, are supported by posts and stretched by cords. Every tent has several divisions, the *divan*, in which the men meet, being strictly separated from the harim or chamber of the women.

The Bedouin of the coast exercises the genuine Arabic

hospitality. After the usual lengthy greeting coffee is brought for the guest as a first refreshment; but it would not be good manners to serve up the liquor ready made, the custom being to bring the beans raw, roast them, pound them, pour them into the pot, and boil them before the eyes of the guest, so that he may be convinced that the operation is properly performed.

After some time a luncheon, consisting, perhaps, of rice or sugared pancake, is served up, and is eaten of course in company with the host, who dips into the dish, or the leather vessel serving as dish, along with his guest. When a visit has lasted for some time, however, the guest, especially if he is somewhat of a stranger, is no longer hindered from consuming his own provisions, and the host, though on his own ground, is very glad to receive some coffee or tobacco from the stranger.

The guest sleeps in the divan of the tent, in which in cold weather he may have for companions the slaves, sheep, and goats of his host; the latter sleeps in his harim, which is separated from the rest of the tent by a curtain.

Safageh has about thirty, Gûeh about fifty tents, so that since each tent stands for a family the population of the former may be estimated at 100 to 150 persons, of the latter at 150 to 200. A considerable number of these consist of slaves, but the Arabs never mingle with the black race.

These coast Bedouins are skilful navigators, the experience of years making them acquainted with all the reefs on their portion of the coast, that is to say, between Ras Benâs and Gimshel; they are, therefore, much sought for as pilots.

Between both their settlements and Koseir there is also a rather active traffic by land. The Bedouins often come by land to Koseir when they have business matters to arrange, and the people of Koseir give them wheat, rice, fat, and molasses in exchange for their pearl shells or the plundered goods of steamers. It is only large consignments that are sent by sea.

Administratively the coast Bedouins of Gûeh are under the jurisdiction of the sheik of the Ababdeh at Koseir, while

those of Safageh are under the sheik of the Gimshah-Ababdeh. Quarrels among each other, however, they settle themselves, and endeavour to avoid contact with the government as much as possible. When the latter adopts any regulation that does not please them they "go on strike," that is, they cease to bring in goods, or remove to another part of the coast where they are out of reach. We need hardly mention that they do not practise any art or industry, and no one in both settlements can even read or write. They celebrate their marriages with an amount of ceremony that always attracts guests from Koseir. The women are kept out of sight, at least before strangers. The dress of the men is a white or yellow shirt, their heads being covered with a large brightly-coloured cloth, which is picturesquely fastened with a woollen cord. The women wear mantles of white cotton or dark woollen cloth.

THE PILGRIMAGE TO MECCAH.

Ramadan is over, and men of all zones of the pious world of Islam make themselves ready to set out on a pilgrimage to the sacred, but by all reports very sinful city of Meccah, the centre of the world and of all worlds; for it very closely concerns the soul's health so to do. A tiny branch of the great stream that annually pours towards that point also touches our little sea-port town. As already mentioned this tributary was formerly of much greater volume; it now brings only a few hundreds or thousands of pilgrims. The main stream, however, does not seem to have become weaker either through want of faith or through the numerous sanitary obstacles interposed to its disease-pregnant course. The number of pilgrims that every year climb Arafat is said to amount to at least a hundred thousand, and if there are fewer than this the number is made up by angels in the guise of pilgrims! But even the pilgrimage, this grand institution of Islam, has not been able to withdraw itself from the influence of the age of steam. The well-to-do pilgrim, instead of traversing huge deserts in the midst of

dangers and difficulties, and voyaging in a small sailing vessel for a month or more on the treacherous sea, can now have himself conveyed safely and comfortably on the wings of steam, so as to arrive close to his destination in a few days after leaving his native land, and the facilities for his return are equally great. The old routes are followed only by those who remain true to the old traditions, by those, therefore, who go in solemn procession from Cairo and Damascus through the desert, bearing with them the arks or *mahmel*, by those, also, who are afraid of the sea, and by those for whom the land journey is the shortest and most natural. Among people possessed of means the natives of Upper Egypt are now almost the only persons who take the route by Koseir and Jeddah, in addition to the pilgrims who cannot or will not pay the expensive steamer fares, and above all the mendicant pilgrims. At the time when the pilgrims are going or returning Koseir is filled with foreign figures, who have to encamp here for a time and await an opportunity for proceeding farther. On the outward journey vessels must be hired, passports visé'd, and clean bills of health obtained, the baggage must pass the custom-house, and a favourable wind has to be waited for. All this may occupy several weeks, and meantime all those arriving from the desert gradually assemble here. When the "great pilgrimage" occurs, that is, when the climbing of Mount Arafat falls on a Friday, which, according to the Mohammedan method of reckoning by lunar years, happens only every eleven years, the number of pilgrims assembling in the town is even yet considerable, since the pilgrimage is then considered specially blessed and the number of pilgrims is much larger than in other years. The town is now, as formerly, converted into a great pilgrim camp. On the return journey, also, the crowding is often great when a number of vessels arrive at once and there are not enough camels to carry the pilgrims farther. On such occasions there is often a scarcity both of water and provisions.

At these times there is a wonderful medley of races in the town. Here is the thrifty Fellah for instance; he loves to

travel along with his whole family—wife, mother, grandmother, child, and child's child, down to the infant at the breast, all accompany him. With the exception of his house and land, which he leaves to be attended to by his brother, cousin, or neighbours, he takes the whole of his goods with him. His wife cooks his edibles for him, which are the produce of his own fields and are carried with him in



Fellah Pilgrims at Koseir.

sacks; for the provisions of the market he never longs: they cost money. He also takes his own camels and fodder along with him if possible, one of them carrying his whole family in a kind of frame fastened across its hump; he builds his grain bags round about him in the manner of a tent, and thus avoids paying for lodgings; he does everything for himself, and thus the expense of the journey is to him by no means extraordinary. The Fellah pilgrim has usually enough for the needs of the journey, and does not beg unless he has lost his money by the way or travels as a dervish. His

behaviour is generally decorous. Until late in the night the Fellah women incessantly fill the town with a peculiar monotonous pilgrim song expressive of their longing after the Prophet and the holy places.

More simple in style is the Takruri or free negro from Darfur, Kordofan, and Takru, from the heart of the Soudan, and the farthest west where Islam prevails. He has seized his pilgrim staff earlier than the other pilgrims, years ago indeed, and wanders towards the rising sun almost naked, without money, without baggage, and on foot. He receives his daily bread from the gracious God, that is, he begs, or he hires himself out for some time as a labourer. Thus he moves slowly onwards farther and farther, always on foot; even the long and arid desert does not frighten him in his strength and health that nothing can impair. Others travel in companies accompanied by their wives, who, like the gypsies, carry their children in a sack on their backs. Thus they march into the town, singing their *la ilah ill Allah* to a Soudan melody, and the women quavering a Soudan air. The first visit they make is usually to the governor, who assigns them the court of a mosque as the place of their sojourn. They have also had for a long time an agent among the citizens of the town, a "sultan" who attends to them, and in return receives from each a small tribute. These blacks all beg, create a great deal of disturbance, and not unfrequently rise against the authorities. At night they amuse themselves in the fore-court of the mosque with strange dances, which have something of a religious character and correspond to the zikrs of the Arabs, but appear to be a combination of the old heathen dances with these. The black ladies, who by no means seek to conceal their charms, also take part in it and mingle their quavers in the barbaric airs of the Soudan. On such evenings there are always a few who fall into convulsions, for the devil is always inclined to take possession of the bodies of the blacks. The domesticated black slaves of the town also execute wild Soudanic dances from time to time, in which they rage, stamp, bellow, and beat drums, but all in harmlessness. Rich people do not

come so often from the Soudan, especially from Darfur. Suakin is the chief place where the Soudanese take ship to go across. The Moghrebins, that is, the inhabitants of North-west Africa, who have strayed here from Marocco, Tunis, Tripoli, and the Sahara, are also a crew of sordid beggars. The classically handsome figures of the Bedouins of Algeria are less seldom seen, with their clear skins, their blazing eyes, their sharply-cut profile, their white woollen mantles, and their hoods closely wrapped round their heads. Their government (the French) does not allow them to wander without means into the wide world to become a burden upon their fellow-men; on the outward journey it is said they have to leave a portion of their travelling money at the French consulate in Egypt, in order that they may have something to fall back upon on their homeward journey. The barbaric governments of the other Mohammedan provinces of North-west Africa have never thought of such a thing. The pilgrims from these regions set out either without means or take an insufficient sum with them, which is spent on the way or at any rate at the gold-absorbing holy places, and if not all spent still on their way back they generally live by begging. Besides begging many of the Moghrebins make something by conjuring, writing curative mottoes and talismans, prophesying, astrology, and other mystic arts. In these matters the greatest confidence has long been placed in a "Moghrebi;" it is only the learned Fellati of the Soudan; "whose hand-writing is blessed" that can rival him. These Moghrebins are a quarrelsome, dangerous, and disorderly crew, dreaded by other people, and difficult to keep within bounds. Their devotional exercises or zikrs are still more barbarous than those of the negroes; the pious frenzy to which they excite themselves when practising them is not always harmless; and it sometimes happens that, in open day and in the public street, they seize a lamb, tear it to pieces with their teeth like beasts before it is quite dead, devour the still palpitating heart, drink the warm blood, and chew the tough fibres of the raw meat!

Besides these main contingents, the misery of all the rest

of the Mohammedan east meets here; the Turk, still proud in his poverty, the broad-cheeked, thin-lipped Tartar or Daghestani, the Bokharian, the "Suleimani," or East-Iranian (?), the well-bred and talkative Syrian, the native of Mesopotamia (Aerák), the Caramanian or Anatolian, even the meagre brown-skinned Mohammedan Hindu, but seldom the heretical Persian. The Persians have, however, a consul at Koseir, who every Friday hoists the Persian flag. It is only the Persians who are regarded as heretics, being Shiites, all the other peoples are orthodox, and the Mussulman, looking at the state of matters among the Christians, is extraordinarily proud of this uniformity of faith, though certainly it has not always existed in the lands of Islam.

Many of these pilgrims, whose route should be quite different, come this way in order to make a pilgrimage to Jerusalem, the third sacred place of pilgrimage; this is often done, for instance, by the Christian inhabitants of Abyssinia and the Jews of Yemen. Others, however, are simply carried away by the stream, and come here without being able to say why and wherefore. Gay and well supplied with money at their departure, they land like a wreck cast up on the shore. Their travelling companions, protectors, or relatives have been lost in the crowd and confusion, or have been carried off by death, and those left behind now attach themselves to some band or other, in order that they may be able to continue their journey, even though it be by a round-about way. The fatigues undergone, the over-crowding, the dirt, exposure, hunger, thirst, and sunstroke every year cause a number of diseases, particularly dysentery, typhus, intermittent fever, and virulent ulcers, often also deadly epidemics to which many thousands succumb. It has been estimated that the number of persons who have died on the pilgrimage since the beginning of Mohammedanism is equal to the whole number of Moslimin at present living (200,000,000?). The sick and the aged are often cruelly left behind in the burning desert by their own people, and die of hunger and thirst with no one near them. The great pilgrim caravan moves pitilessly onwards, and whoever remains behind is plundered by the

Bedouins, who are always lying in wait. But the Moslim who dies on the pilgrimage thinks little of death, being sure that he will immediately enter paradise.

When the holy places have been visited, the pilgrims who have money return home by steamer or with the pilgrim-caravan; those who are to go by way of Koseir embark in native sailing vessels at one of the Arabian sea-ports, such as Jeddah, Yemba, or Wudj. There the begging pilgrims also gather in crowds, and the respective governments compel every vessel that sets sail to take on board a quantum of this troublesome crew. These pilgrim-vessels are truly a wretched sight, no better than a slave vessel. A comparatively small vessel will carry 80 to 120 persons; men, women, and children, the sick and the healthy, animals and goods, are all packed and jumbled together in a disgusting manner, and the voyage in this confined space often lasts for several weeks. No wonder that death always reaps a rich harvest here. The dead are thrown overboard as soon as possible. The government provides the begging pilgrims with a supply of food enough to keep them from starvation, namely, biscuit or black bread simply dried, and during the whole of the long voyage they have nothing but this to live on, unless such of the passengers as are better off contribute something from their stores.

Arrived at the port of Koseir these wretched begging pilgrims, half starved and parched with thirst, pour through the streets and lanes of the town, and importunately demand alms, knocking at the doors almost in a threatening manner. At the same time they sing a begging formula they have learned, some of them accompanying themselves on a primitive lute or dancing in their wonderful tattered costumes, and holding in their hand their bread-bag or a water-vessel such as a cocoa-nut shell. They pass the night in the street, on the floor of a mosque, or in some ruinous shop. The sick lie down there too, and receive food and drink from compassionate souls. It is only when they are reduced to extremities that they make up their minds to allow themselves to be taken to the hospital, where they are cared for, and receive

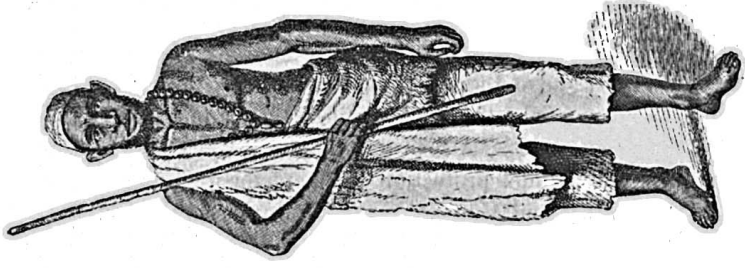
more suitable food and medicine; many have to be brought there by force.

But all the begging pilgrims are not really so poor. Many of them may be very well-to-do citizens at home, but here they act the begging pilgrim, partly from avarice, partly to pass themselves off for persons of superior holiness. When an inspection is made by the custom-house officers, or when one of these begging pilgrims has died, it is by no means rare for a roll of fine gold pieces to be found in his wallet, or sewed up in his clothes, or even in a bag between his thighs, though he had previously affirmed his poverty with the most solemn oaths. At the same time he will be clad in the filthiest rags, he will hunger and starve along with his companions for weeks, till reduced to a skeleton, will allow himself to be fed and carried gratis by the government, and will live the whole journey by begging.

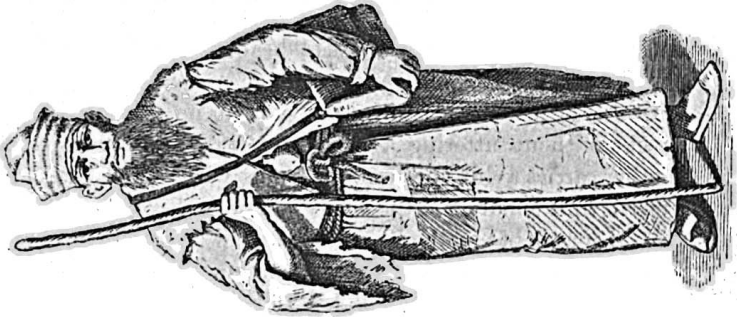
The authorities never think of checking these parasitical on-hangers on the body of pilgrims, they rather encourage them. To be sure there is a clause in the sanitary regulations according to which the authorities can forbid the departure of persons entirely unprovided with means; but, like most ordinances that do not refer to money and taxation, it exists only on paper. Such begging pilgrims are not sent back before setting sail, but are imposed upon the first and most convenient vessel in order that the town may be rid of them as soon as possible. On the return journey, if they are put in quarantine, they are supplied with food and water; on the journey through the desert to the Nile valley they are handed over in half-dozens to the camel-drivers so that they may ride by turns, and for this the government pays the camel-drivers, giving the pilgrims also a supply of biscuit to take along with them. The sick are cared for in the hospital free. Sometimes, when the public health seems to demand it, and in order to guard against epidemics, the government sends steamers of its own to fetch these beggars from the Holy Land, and to convey them through the Suez Canal to their own countries.

A strange class of men are every year to be met with among the crowd of pilgrims of all nations; these are the

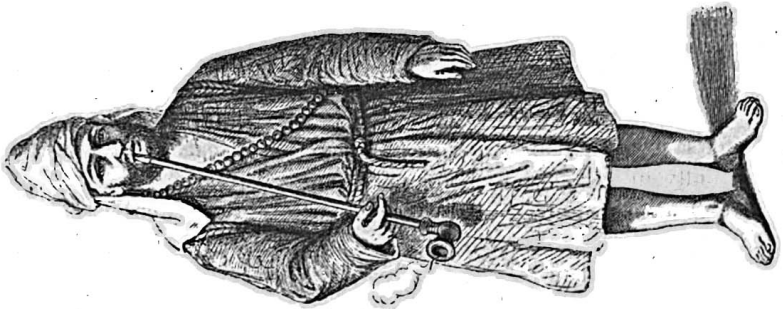
travelling dervishes. Travelling, and making pilgrimages in particular, is their profession. They are always alone, without family and without companions. Many appear regularly every year at the time of the pilgrimage, and continue to do so all their lives. A few of them are learned men, and are often taken under protection and kept for weeks and months by wealthy and God-fearing individuals with a thirst for knowledge, till they go to some other place to receive similar treatment. Others are a kind of mendicant monks, who dress themselves in bizarre costumes, for example, a mantle consisting of an immense number of many coloured patches sewed together, with a towering head-covering or a cap something like a Jacobin's cap. A great many let the hair of their head grow long, in order to distinguish them from other Moslimin, and wear a patriarchal beard; many go almost naked. They also exhibit some strange customs and peculiarities. For instance, one of them will run up and down the streets without uttering a word and without any object; another carries a club and beats his breast with it; a third from time to time shouts out the confession of faith, or the call to prayer, or a chapter of the Koran; a fourth, without any reason, from time to time works himself into an ecstasy (as in the zikrs) by repeating the name of Allah a thousand times, while he foams at the mouth and his eyes water; a fifth leads a crowd of children through the streets, with a flag in his hand, shouting out something or other which the children repeat in chorus. Many act the buffoon, and play all sorts of foolish pranks, but always in their sacred dresses. They do not take money, but only food and drink, in which they are very moderate; some of them gnaw bones they find on the street, and invite the passers-by to share with them. These persons venture to take great liberties, since they have a reputation for sanctity, and are regarded as *valis*. They seat themselves boldly in the place of honour in the divan of the rich, and high and low eagerly seek their blessing. Since they enjoy the special grace of God, God has denied them in this world the ordinary human reason, they are therefore without sin, and will be favoured in the next world; moreover, they can work



TAKRUCHI OR FREE NEGRO OF DAHFUL.



TRAVELLING DERVISH FROM KHORASAN.



TRAVELLING DERVISH FROM THE FAYOUM.

miracles even in this world or after their death. Generally speaking they do no one any harm, though their jokes are sometimes disagreeable enough. These men would afford an interesting study for a doctor of the insane. Their condition is that of a peculiar, harmless lunacy, or partial simplicity, perhaps caused by long-continued ecstasies. Some also are possibly mere pretenders.

The pilgrim season, however, does not bring merely sorrow and wretchedness; there is no want of amusements and sights worth seeing. It is very interesting to watch the crowd of people collected from all the zones of the earth, to note their behaviour and their dresses, to listen to their narratives and adventures, to go through the inns and the areas now converted into encampments, in doing which we may have an opportunity of looking more deeply into the large oriental eyes of many a foreign child of the fair sex; for when on the journey they are not so strict in veiling themselves.

We examine also the foreign utensils and goods which come to light under the inspection of the customs-officers, or which the pilgrim sells for a trifle through the broker—if he does not act as auctioneer himself—in order that he may be enabled to continue his journey. Here we may see weapons, books, perfumed woods, pieces of black coral, and rosaries made of it or of aloes wood, leathern and metal vessels filled with water from the famous Zemzem well, sheets of pictures giving views of the holy places, packets of sacred earth from Meccah or Medinah, dates from the tomb of the Prophet, toothpicks and other relics. Lastly, there meet here jugglers, athletes, musicians, male and female dancers, snake-charmers, conjurors, astrologers, story-tellers, poets, learned men and soothsayers, retail-dealers, and all kinds of handicraftsmen of all sorts and all countries. By working at their trades and occupations these earn at least enough to pay the expenses of the journey, while they at the same time obtain the blessing that belongs to those who have made the pilgrimage.

QUARANTINE.

Closely connected with the pilgrimage is the institution called quarantine. In the Egyptian ports of the Red Sea there were quarantine officers long ago, every vessel had to subject itself to a sanitary inspection, and in the time of epidemics, such as cholera, typhus, or small-pox, universal quarantine was imposed. But sanitary arrangements on the whole were incomplete, on the opposite coast people would hear nothing of sanitation, and certificates were never exhibited. Then came the cholera year 1865. Conveyed from India its source, and brought into fermentation by the huge multitude of people that were then engaged in the "great pilgrimage," the disease spread quickly over the whole world in spite of quarantine. It was brought to Suez by returning pilgrims, and thence travelled northwards, especially to the countries on the Mediterranean, as well as southwards by way of the Nile valley as far as the Soudan. After this evil year an international sanitary congress was held, as is well known, at Constantinople, for the purpose of consulting as to what measures should be adopted for guarding against and preventing the further progress of the devastating disease. An important resolution of this conference to compel the pilgrims to travel by land should have been put in force the following year, since the cholera again broke out among the pilgrims, although with less virulence. But the quarantine establishments were then defective in their organization, and that led to great confusion. The Egyptian sanitary authorities on the African coasts were strictly commanded to compel every pilgrim vessel to sheer off and withdraw to Tor on the Sinaitic peninsula, in order to undergo a quarantine there. To support this command a division of Turkish Bashi Bazouks was sent to Koseir. Whether the order to sail to Tor did not reach the vessels leaving the Turco-Arabic sea-ports, where a portion of them had already undergone a four weeks' quarantine, or whether they intentionally evaded it, we cannot say, but at all events one day eight pilgrim vessels appeared at once in the harbour of Koseir, crammed with more than

800 moneyless and starving human beings, a great many of them sick. With the passengers in this shocking state sailing immediately to Tor was out of the question, a brief space must at least be granted in order to provide them with a supply of provisions necessary for a voyage which, in the face of the prevailing north winds, might occupy three or more weeks. The total prohibition against landing was also broken through. But the pilgrims would have nothing to do with Tor, they would remain here, however long they should be kept in quarantine. Wringing their hands some of them begged for compassion; the others threatened. The provisions which were being put on board in view of the voyage ordered were partly thrown into the sea. When at last the captains were earnestly entreated to set sail, a general pilgrim-revolution arose; the pilgrims bound the sailors who were willing to obey, beat the captains, cut the ropes, took possession of the boats with the intention of landing, or jumped into the water to swim ashore. But the beach was already occupied by soldiers and watchmen, and the pilgrims who attempted to land were driven back. The authorities, however, saw the impossibility of executing the command of the government. To use firearms against pious pilgrims seemed a doubtful proceeding. And who could hinder such desperate men from landing at one of the uninhabited shores, and returning by land or penetrating through the mountains into the Nile valley.

It was accordingly resolved to send a special messenger by dromedary to the nearest provincial town, and thence to telegraph the state of matters to the government in Cairo and Alexandria. This resolution gave hope and comfort to the pilgrims, who now remained quietly waiting. But the capital is a long way off in spite of the telegraph. The pilgrims had in the meantime to get their food and drink, and the latter especially was difficult to provide, while the supply of biscuits was soon exhausted, particularly as the number of pilgrims soon rose to 1300 by fresh arrivals of vessels every day. During the whole of this time the town was in arms, there was a constant dread lest the pilgrims should quit their

large fleet and force their way into the town, soldiers and workmen kept guard night and day on the beach, keeping watch-fires burning and loudly challenging each other to give the watchword. At last—after thirteen weary days—the message was received that the pilgrims were to be allowed to land, but in quarantine, the proper quarantine to be held at Bir Amber, on the borders of the Nile valley, whither they were to be brought in travelling quarantine under an escort of soldiers. In the circumstances this intelligence naturally caused great joy. The pilgrims were now at least allowed to leave their prisons, the vessels, for the dry land. A week was still required, however, before all the pilgrims could be conveyed away by camels, and the difficulty of providing food, and particularly drink, caused fresh revolutionary scenes every day. Besides this, more than seventy sick persons—the most of them suffering from dysentery—lay scattered around polluting the air, while fresh cases of illness were being caused by the piercing rays of the sun above and the burning sand beneath, for the quarantine place is only fenced round with ropes and poles, straw huts having been provided only for the officials and the sick, and that not without difficulty.

Gradually sanitary arrangements grew to be better organized. Instead of the distant Tor the Egyptian sea-port El Wudj, situated on the Arabian coast, was chosen as being in every respect the most suitable quarantine place for all pilgrims, both those returning with the great caravan by land, and those going by sailing-vessels or steamers to Suez and Koseir. Every year during the time of the return of the pilgrims, quarantine is now held there for about two months after the Great Beiram, a special quarantine commission being sent there by the Egyptian government. If cholera is not prevalent it lasts only five days as a quarantine of observation; should a suspicious case of sickness occur it is prolonged. No vessel that leaves an Arabic harbour, not even the European steamers, is admitted at this time into the Egyptian harbours of Suez and Koseir if they have not passed through quarantine at El Wudj. At other times also, if a suspicious

illness is notified from Arabia, quarantine is established there; thus, in 1874, when cases of the plague were said to have occurred in the country of Asir, and near Meccah, not at the pilgrim season, although most people denied the correctness of the report, vessels had for months to undergo quarantine for three weeks. According to circumstances vessels may be ordered for security to pass through a short subsequent quarantine in the Egyptian ports, or they may be discharged at once after a regular inspection by a medical man. At all the principal ports on the Red Sea there are now permanent sanitary officers who grant regular certificates, and the pilgrim caravans are accompanied by government doctors (of course Mohammedans), who have to send in reports on the general state of health of those under their care to the supreme sanitary authorities, and to take measures in serious cases. Since the terrible time experienced in 1865 Meccah itself has had a certain sanitary organization; numerous channels, for instance, are said to have been dug in order to carry away the blood and other remains of the sacrificed animals, the heaps of such matters having formerly polluted the air.

Will now the cholera and other epidemics be prevented in future from spreading by these important regulations? That an epidemic may be confined by quarantine regulations within a cordon or the walls of a lazaretto, that the methods of procedure prescribed, such as fumigating goods and papers with aromatic substances, or keeping at the distance of a gunshot from infected persons, are of great value there is very good reason to believe, especially in the case of cholera, which, by means of excrementitious matters, is capable of acting at some distance. But to carry out the system a number of quarantine officials and doctors are required, all of whom are exposed to the infection, which is also liable to be conveyed by provision sellers or by gossiping friends, not to mention the numerous possibilities of contagion through the carelessness or corruption of those appointed to see the regulations strictly carried out, and the repugnance of the fatalistic Arabs, physicians included, against all regulations of the kind. The only perfect safeguard against contagion would therefore be to

prevent all communication whatever between a vessel and the shore, but of course this is impossible. On land it has been found decidedly advantageous to have several quarantine stations, all of which must be passed through, one after the other. The utility of this was proved some years ago when the cholera, in a virulent form, was spreading from the Soudan towards Upper Egypt; it was stopped at a third quarantine cordon on the southern frontier of Upper Egypt and did not invade the country itself. The detection of the disease by the medical men is also a matter of no small difficulty. It is not easy to perceive that a person is suffering from choleraic diarrhœa in its early stage, or to detect the beginnings of any disease the instant a vessel arrives and is inspected, particularly as the new-comers do everything in their power to avoid being recognized as ill and forced to go into quarantine. At the decisive moment a sick person will put on a cheerful air however ill he feels, he will even cut capers, and will chew a morsel put into his mouth as if he had a ravenous appetite; he considers it, in short, a patriotic duty to deceive the doctor and save his companions from quarantine. There is no use in putting questions, for the answers are certain to be false. To feel pulse and skin is not allowed, and the general appearance and tongue are the sole remaining criteria. A certain diagnosis, therefore, is only possible in cases of admitted illness.

Still the value of quarantine stations is not to be denied; they impede the movements and render slower the progress of those who carry the disease, which gradually becomes less and less virulent, while by the isolation of those attacked, which can only be brought about by a quarantine, so many sources of disease are kept apart from the general body. But quarantine inflicts severe wounds upon trade and navigation; even in the case of the small native vessels the fees that fall to be paid through a single quarantine often amount to as much as 100 francs, a large percentage of the total returns of a voyage. Of course quarantine causes the government also a great deal of expense, which is far from being covered

by the fees. But why should the inhabitants of the maritime districts, whom it is sought to protect, be exempted, and the expenses fall upon the travellers and mariners already sufficiently annoyed by quarantine? If the expenses of quarantine were to be paid by a general tax on the country, the amount falling upon each individual would be very small. By the abolition of the quarantine fees many an incentive to corruption would be removed and the regulations more strictly observed, for the Egyptian does not dread loss of time but expense. But as things are, quarantine is universally regarded as an institution for taxation and extortion, and no one believes that it is of any real value in preventing the spread of epidemics.