

of most beche-de-mer being the Chinese market, which involves long transport, unless perfectly cured, it can never reach the end of its voyage without becoming greatly depreciated and sometimes altogether destroyed by decomposition. I have seen whole cargoes in Guam and elsewhere thrown into the sea from this cause. In every instance where such has been the case, it has been the result of ignorance or negligence. It is not only quite possible, but with due care and precaution perfectly easy, to preserve beche-de-mer in such a manner that it will keep without injury, not only during a voyage to China, but, if need be, until the day of resurrection; as thus, if the beche-de-mer be cured thoroughly, as it is bound to be if it is smoked sufficiently and dried in the hot sun till it rattles like a bag of walnuts (which is no more than any trader expects who has been used to deal in it with success); then, if any one be afraid of transport in damp weather or leaky decks, put it into iron tanks (a tank will hold 30 cwts.), plaster the lid round with white lead, and one might rest on the assurance that the beche-de-mer would be secure from decay as long as the iron was not penetrated by the atmosphere, which would not happen for some years at all events. The difficulty of preserving beche-de-mer consists in this—if not thoroughly divested of its juices, or if subjected to damp, or brought into contact with fresh water, it speedily dissolves into a glutinous fluid, of an appearance like molasses, and of an odour like decayed eggs.

NO. XII.—BECHE-DE-MER, SPONGE, AND TURTLE FISHING.

I have already observed that from some unexplained reason beche-de-mer is not found in the same abundance upon every part of a coral reef or sandy lagoon, although there may be no apparent difference in the depth of water or other local condition. On some islands it is very generally distributed over the whole surface of the shoals; on others it occurs only in patches. There is also another fact to be borne in mind. On most of the atolls of the Pacific are to be found in the shallow water, where it is not more than knee-deep at low tide (and consequently during the day very warm), both on the sand and on the flat coral, immense quantities of a sort of black beche-de-mer from six inches to a foot in length, which is of no use whatever in commerce, for inasmuch as it consists only of a gelatinous skin filled with water, and cannot be preserved since it has no solid substance, and when cooked almost wholly dissolves. When lying in the water, it does not much differ in appearance from the marketable black kind, excepting in so far that it is rather more slender in proportion to its length; also, that around its mouth it exhibits small tentacles resembling the horns of a snail. It has frequently happened that men void of experience, seeing the great abundance of this creature upon coral reefs, have reported such localities as being productive in the true black beche-de-mer of commerce, when at the same time there was nothing of the kind to be found there.

There is to be met with frequently among beche-de-mer a marine animal of a very singular aspect. It is called by the natives of Tokerau "taumata" (that is to say, skull cap, from the fact of its being sometimes converted to that use). It is about the size of a man's head, or somewhat larger. As concerns its shape, if you take a square piece of paper and double down the corners in such a manner that the points meet in the middle, that will represent it very nearly, excepting that the form will be more rounded. The under side, where the foldings take place, lies flat upon the rock or sand; the upper is concave, and of a reddish brown colour, so that it looks like a loaf of bread. It is of a gristly consistence, and covered with small warts. It has no appearance of eyes or power of locomotion so far as one can discern, and therefore seems to represent one of the lowest forms of animal life. (I should like to know Mr. Darwin's opinion as to the ultimate future of such an organism as this.) The beche-de-mer, blind and helpless as it seems to be, may be regarded as an intelligent animal in comparison. It appears to live upon suction. When taken out of the water, it can exist a very considerable time, if not absolutely exposed to the hot sun. There may possibly be a use for this thing, if one only knew it (it is not regarded as edible); but the only purpose to which savages devote it is for the making of a kind of skull cap or helmet, which they effect by cutting round the under side (for it cannot be opened by any violence) and scooping out the inside. When dry it becomes as hard as bone. Beche-de-mer fishers frequently cut these creatures into strips, and cure them with their beche-de-mer, on the principle that "all is fish that comes to the net;" but the practice is dishonest, and ought never to be permitted, if for no other reason, from the mere fact that it has a tendency to depreciate the article in the Chinese market.

Among the profitable industries of the coral seas, the collection of sponges is not the least important. It is said that the sponges of the Pacific are of a kind inferior to those of the Levant or Red Sea. It may be so, but I believe not in every case, as sponges are met with occasionally in the Pacific as large and well shaped, and apparently as soft, as any that are to be found in the market. I am of opinion that the Turks and Arabs have some peculiar mode of preparing their sponges with which the fishers of the South Sea are not acquainted, and that this really constitutes the difference. Sponges of a superior kind are gathered in great quantities in the Gulf of Mexico, about the Bahama Banks, and at Green Turtle Bay; they realize a high price in the market, but as far as I have seen do not differ from those found in the Pacific. To fish for sponges with success requires a certain degree of practice, as they are very difficult to recognize in the water when in a live state. They grow on the coral and very much in the crevices of it, and are not by any means conspicuous, as they look like a part of the stone. When removed, they are heavy, slimy, hard, and black as tar. The best of them are of the form of a mushroom, and they are found from the size of a man's fist up to two feet in diameter. They usually lie within the lagoons, in water of a depth from one to ten fathoms. They are inhabited by animalcula, which in the process of cleaning are decomposed and washed away. In order to effect this object upon a sandy beach where the tide ebbs and flows, a number of forked sticks are driven into the sand, and upon them are fastened slender poles as a sort of framework; from these sponges are suspended by strings in such a manner that when the tide is in the sponges are floating in it; when it is not, they are exposed to the wind and sun. In the latter case the animalcula die and decay, and by alternate scorplings and washings the sponge becomes cleaned and bleached, as well as softened, in consequence of the removal of the glutinous creatures which had inhabited it. When prepared in this manner, the usual rate of barter in the islands where they are chiefly obtained is four large sponges for one yard of calico. I have found that they were greatly improved both in colour and softness by being