

within it they lay down a floor of planks, which they lodge upon rollers working upon wooden rails in such a manner that the floor, which is made large enough to contain, at a time, several thousand broken cocoa-nuts, can be pushed out from under cover and drawn back again instantly, should it become necessary. The whole surface of this moveable floor they cover with sheets of galvanized iron or the tin with which the packing-cases are lined, in which the traders receive their cotton prints from the merchants. The intense heat generated by the radiation of the sunshine from the bright metal causes the kobra to become sufficiently dry in one day (which, by the ordinary process of laying it upon the coral sand could not have been effected in less than three), while at the first appearance of a change of weather the floor and all which it contains is without difficulty shunted into the shed, where it is effectually protected from any damage which might result to it from the rain. Barbarians, although at first very dull of comprehension in a matter of business, are keenly alive to their own interest, and they soon begin to argue after this manner: "If it be profitable for white men, who are so much more greedy of gain than we, to come and live amongst us and to go to all this trouble, it must also be profitable to us; let us, therefore, imitate the example of these white men."

NO. IX.—THE PEARL SHELL TRADE.

As the trade in pearl shell has of late years received an unprecedented impetus, it cannot fail to be useful to merchants interested therein to note for their information certain facts concerning the manners of its production, which, although very evident to men of an observant turn of mind who have had much experience in its collection, yet do not seem to be generally known to men of science. The pearl oyster of the Pacific is an inhabitant of the interior lagoons of certain of the great coral atolls—a necessity of its existence appears to be clean, growing coral, to which to attach itself free from sand or drift, and a considerable influx and outflow of the sea at the rise and fall of the tide. That they are not absolutely confined to lagoons, but that they do exist in great quantity under the tremendous breakers which beat upon the outer reefs (as also, probably, at great depths in the sea beyond them), is a fact not generally known, but is nevertheless true. As a proof of this, there are to be found chiefly on the windward side of all coral reefs enclosing pearl lagoons (and especially at certain seasons of the year) incredible numbers of microscopic pearl oysters and others of larger size, up to the diameter of a shilling, tossed about in the foam of the breakers and travelling with the flood tide over the reef towards the calm waters of the lagoon. These have been spawned in the deep sea or in the coral caves under the foaming surf which thunders on the outer reef, and seek, by some instinct of their nature, to make their own way into the placid waters enclosed within that stormy barrier. The oysters which are spawned within the lagoon are formed in congeries attached to the parent shells, or clustered in vast numbers fastened to one another in the holes of the rocks. The shell comes to maturity in about seven years, at which time its average weight is about one pound, exclusive of the fish contained in it. The usual size is about that of a soup-plate, or ten inches in diameter, although in rare instances they arrive at as much as eighteen. After this the creature perishes, detaches itself from the rock, opens to close no more, the fish decays, and the shell, becoming coated with coral and other stony parasites within and without, loses all value. The pearl oyster is gregarious; wheresoever one is found, there are of a surety vast numbers somewhere in the immediate vicinity. They are found in coral caverns hanging from the roof, linked together after the manner of a chain, or clustered in large piles firmly attached to one another. This attachment is only temporary. It has been generally believed that the pearl oyster is a fixture, and certainly the appearance of the cable by which it binds itself to the rock would warrant that supposition. This apparatus has the look of a large tassel, consisting of an infinite number of slender filaments, each about the thickness of a pack thread. It springs from the body of the fish, and passes through an orifice between the shells immediately next the hinge. During life its colour is iridescent, changing from a dark green to a golden bronze, exhibiting while in motion various prismatic hues. It fastens itself to the rugged rock with so determined a hold as frequently to require the utmost strength of a powerful man to tear it from them. Under these circumstances, it seems incredible that the creature should move from place to place. But, to borrow the words of Galileo, "Nevertheless it does move;" and under the influences of certain causes, these bivalves are in the habit of migrating *en masse*, not for any great distance, it is true, yet from one coral shelf to others in the immediate neighbourhood. As concerns the reason of their exodus, it might possibly be an alteration in the temperature of the water, caused by change of weather, or a scarcity of the animalculæ upon which the oyster feeds. The presence of drift sand is obnoxious to its comfort; consequently in the neighbourhood of banks and cays composed of that kind of débris it will not live. In lagoons which have no tideway it is not found, and if introduced there perishes. The experiment has frequently been tried, and its failure seems traceable to the following cause: Wheresoever sea-water becomes stagnant in the lagoons of the Pacific, there make their appearance, in great numbers, a hideous reptile resembling a centipede, which is found from the smallest conceivable size up to a foot long: these enter and devour the oyster. They may have other enemies; this one is the most notable. Under favourable conditions, the life of the pearl oyster would seem to be one of uninterrupted ease and passive enjoyment. Himself a creature most gloriously beautiful, his existence is passed among forms of the most surpassing loveliness, bathed in the cool, bright, unpolluted waters of the main. There he adheres to the side of some caverned cliff, covered with marine vegetation, and spreading out his ample beard (of which the dazzling colours when viewed in the light of the refracted sunshine, beaming through the limpid element in which he dwells, are like the tints of the opal, or of that stone which is called cat's eye by the merchants of Ceylon, and, sweeping around him his snaky tongue, he feeds daintily and waxes fat, and devotes the surplus of his nacreous secretion to the production of a precious gem, such as might haply be counted among the chief treasures of a kingdom, like the apocryphal eardrop which the wicked Queen of Egypt (upon whom Mark Antony was so fatally spooney) was said to have swallowed in a dram of vinegar; or the famous pendant which hung upon the bosom of that Lollia Paulina whose wealth in jewels was so enormous that she was entitled by the Roman people, "The grave-pit and magazine of the conquering robbers of the universe." It may be as well to mention here that pearls are, under certain conditions, liable to a form of decay, or a loss of brilliancy, which impairs their value. A good preservative against such a contingency is to keep them in magnesia.