

## 5.—REPORT UPON THE PEARL FISHERY OF THE GULF OF CALIFORNIA.

BY CHARLES H. TOWNSEND.

(Plates XXVIII to XXX.)

The Pearl-Shell Company of Lower California, with an invested capital of \$100,000, has been in existence for fifteen years, and is by far the largest corporation engaged in the pearl and pearl-shell fishing in those waters and has more comprehensive privileges from the Government of Mexico.

The territory over which the operations of this company extend embraces the coast of Lower California from Cape St. Lucas to the mouth of the Rio Colorado at the head of the Gulf of California, and the coast of Mexico from Acapulco to the confines of Guatemala.

The franchise by which the company has exclusive privileges over this territory includes all out-lying islands, with exception of the islands of Ceralbo, Esperitu, Santo and San Josef in the Gulf of California, which are controlled by another (the Gonzales) company concerning whose business I am unfortunately not posted.

From four hundred to five hundred men are annually employed by the Pearl-Shell Company. This number, however, includes the crews of vessels as well as divers.

The season for pearl-fishing commences about the first part of May in the vicinity of Cape St. Lucas, whence operations are gradually carried into the Gulf of California, which is usually entered by May 15. During the summer the entire eastern coast of the peninsula is worked, and in October the base of operations is removed from La Paz, the headquarters of the company, to Acapulco, where the fishery is continued for two or three months longer.\*

Whatever of romance has hitherto enshrouded the naked diver for pearls in the sea, he is now practically a submarine laborer who uses all the modern diving paraphernalia available.

No longer plunging for sixty seconds into the sunlit green water that covers a coral bank, he puts on a rubber suit with glass-fronted helmet, and suitably weighted with lead, descends for hours to gather pearl-oysters, which are hoisted in a wire basket by his companions in the boat above, who also supply him through a rubber tube with the air he breathes.

In conducting the pearl fishery the divers are located in camps at favorable places

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\* The west coast of the peninsula as far north as Margarita Island is also included in the lease of this company.

along the shores (see plate XXVIII). Each camp is supplied with a diving suit and an air machine, which is mounted in a heavy barge-like boat, as shown in the illustration (plate XXIX). This boat is daily rowed from camp to each place of operation. Arrived there, one man is diver, one tends his signal rope, one hoists and empties his basket of shells, two turn the cranks of the air-pump, and two are at the oars to keep the boat well over him and carefully follow his wandering course upon the bottom in search of shells. Thus it requires several persons to operate each diving outfit, young boys being frequently employed as attendants.

The diving suits, of which the Pearl-Shell Company keep about seventy on hand, are mostly imported from London. About thirty of them are kept in constant use during the season. They cost about \$35 each.

A fleet of five schooners, ranging from 20 to 150 tons, is employed in distributing the diving squads over the area being worked, supplying them with provisions and transporting their ever-accumulating heaps of shells to La Paz. A small steamer, 62 feet long, has recently been added to the fleet.

Two or three large warehouses at La Paz, containing the supplies and stores used in the pearl fishery, I observed, were well stocked with diving machinery, ship stores, and provisions. In fact, there was about the establishment every appearance of a well-regulated and remunerative business.

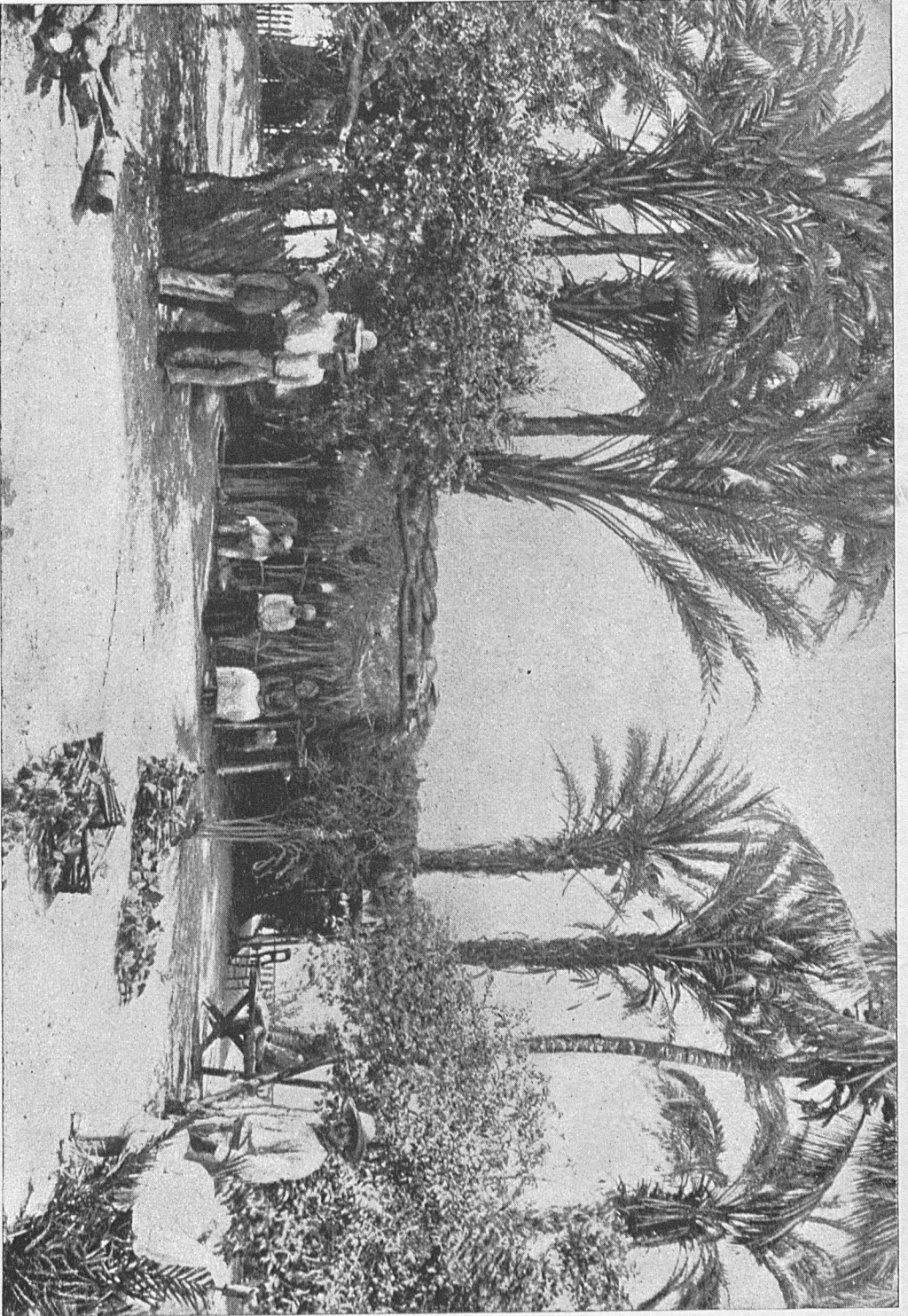
All equipments, provisions, etc., except the English diving suits, are bought regularly in San Francisco, Cal.

In one of these warehouses at the time of my visit, were stored in sacks 80 tons of shells of the pearl-oyster (*Meleagrina margaritifera*). The principal revenue of the pearl fishery is derived from the shells, the bulk of which are shipped to Europe for manufacture into ornaments, knife-handles, buttons, and all those articles for which mother of pearl is employed. Although the fact is well known to most persons, it may not be out of place to state in this connection that pearl, or mother-of-pearl, as it is usually called, is but the nacreous interior of the shell of the pearl oyster, laid down in successive layers by the mantle of the animal, and that "pearls" are purely accidental growths, "being caused by the deposition of nacre around some foreign object. This nucleus may be a bit of sand, a parasite, or some similar object, but it is said that usually it is an egg which has failed to develop properly." This explanation might be further supplemented by the statement that the so-called pearl-oyster is not in any way like the edible oyster of commerce.

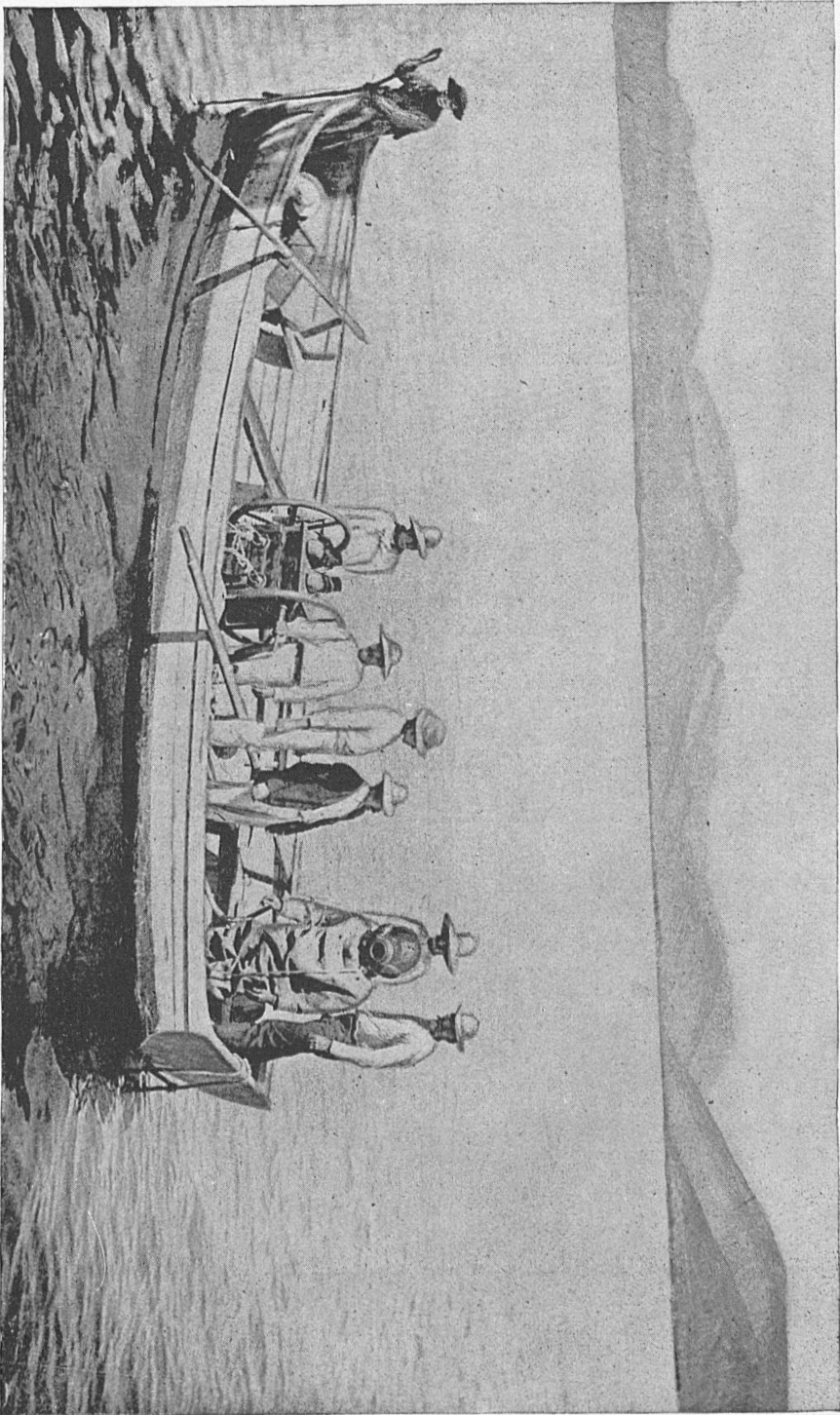
Señor Hidalgo, manager of the La Paz pearl fishery, kindly opened his safe and exhibited the pearls representing the gatherings of the three preceding months, about \$12,000 or \$15,000 worth.

They were separated into eight or nine grades, the lower grades constituting by far the greater number of those exhibited. Most of them were small and imperfect, and of little value. The large, symmetrical, and consequently valuable pearls of the lot, worth perhaps from \$500 to \$1,000 each, were only a dozen or so in number. One or two of these were black, or of metallic black hues, but I was informed that they were not less valuable than white ones of similar proportions, although not so readily marketable in America as in Europe.

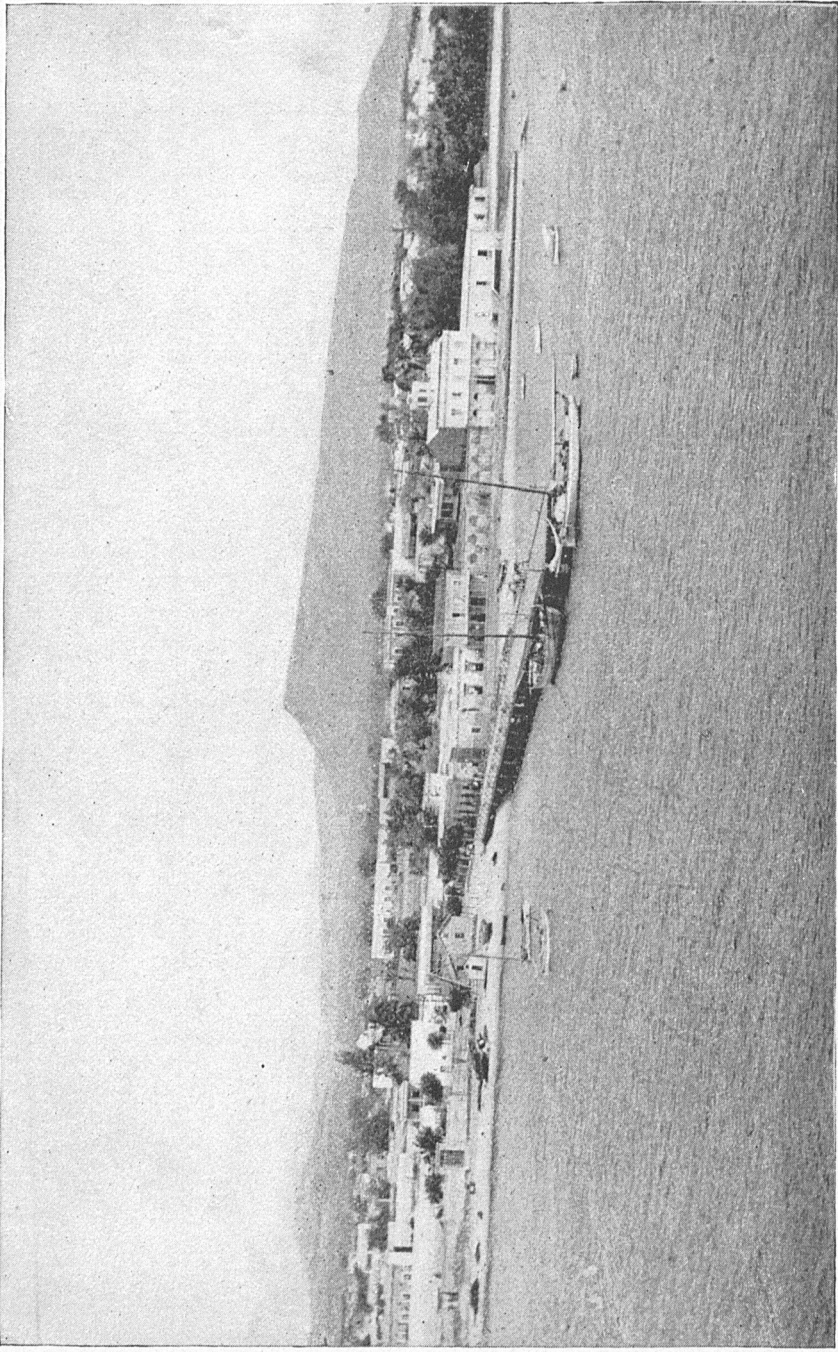
The largest of these pearls, as I remember them, did not exceed, perhaps, in size, the egg of the common blue bird (*Sialia*). It may be remarked that the largest pearl known is 2 inches in length, and weighs 3 ounces.



CAMP OF PEARL DIVER. (See page 92.)



APPARATUS OF THE MODERN PEARL DIVER. (See page 92.)



LA PAZ; SHOWING PEARL WAREHOUSES. (See page 92.)

Writing in 1857, Mr. Carpenter stated that "The Gulf of California used to be celebrated for its pearl fishery, but it appears to have been exhausted, and very few shells have been brought of late years."\* It is not unlikely that the adoption of the submarine engineer's suit by the pearl fishers of La Paz must have been the step which led to the continuance of the pearl-fishing industry, for the search for shells can now be pursued into deeper waters than in the days of the naked divers, the best of whom could not descend a dozen fathoms. Half that is rather more than a practical working depth.

It must have been difficult to teach these people the use of the diving suit, for during the first year or so after its introduction, a man was lost from the La Paz force almost every month. This Señor Hidalgo ascribed to the giving-way, in nearly all cases, of the rubber air tubing, and said that no accidents had occurred since the introduction of a better grade of tubing. English tubing has been discarded in favor of that manufactured in New York.

An accessory to the diving suit as used at La Paz is a small sheet-iron reservoir of compressed air, which can instantly be made to supply the diver with five minutes' breathing material in case of accident to the air machine or the connecting rubber tube. It goes down with the diver, and its air connection with the diver's helmet he effects by the simple turning of a cock.

In company with Messrs. Gilbert and Alexander, of the U. S. Fish Commission, I went out with a party of divers and made a descent in about three fathoms of water. The sensations accompanying this experience were by no means comfortable, at least not in the excitement, and perhaps nervousness of a first trial, but I can readily understand how a diver accustomed to breathing under such conditions could very thoroughly search the bottom for shells. The light is gray and dim, notwithstanding the intense sunlight above the surface, but within a radius of a few yards everything is distinctly seen. Owing to the pressure of water and the weights necessary to overcome it, a novice has the same difficulty in maintaining the perpendicular as a child that stands alone for the first time.

The pearl fisheries of Lower California, from Magdalena Bay northward, recently in the hands of S. Z. Salario, a citizen of Ensenada, who obtained a six years' concession of the fish, seal, whale, shell-fish, turtle, and pearl fisheries, are now being developed by the On Yick Company of San Francisco, a Chinese company, which has purchased a large interest in them. It is understood that Chinese capital and men will be employed principally, except in the branch of pearl fishing, for which Mexican divers have been secured, and that the necessary diving apparatus, boats, etc., have been sent to Magdalena Bay.

A large schooner, the *John Hancock*, is engaged as a tender to this fishery. The *Hancock*, an old vessel, was originally a steamer, and was used as a tender to Commodore Perry's flag-ship when he made the treaty with Japan. For several years past she has been employed in the fishing trade by Lynde & Hough, of San Francisco.

During the cruise of the *Albatross* in the Gulf of California shells of the pearl oyster were frequently brought up by the dredge, from rocky and shelly bottom, in depths varying from 10 to 30 fathoms. In slightly greater depths the number of hauls made were, perhaps, not sufficient to test their existence, but none were obtained.

"In the lower part of the Bay of Mulege, in the Gulf of California, near Los Coyotes,

\* Brit. Mus. Catalogue, Mazatlan shells, p. 149.

pearls have been found of rare value and astonishing brilliancy. It was in this bay that Jeremiah Evans, an Englishman, towards the close of the last century, obtained those magnificent pearls of which the collar was made for the Queen of Spain, and which evoked so much admiration at St. Cloud and Windsor Castle. In the time of the Jesuit missionaries the pearl fishery was actively carried on, and produced great wealth to the people of Lower California.\*

The following mention of "lucky finds" of pearl fishers is made in a letter to the Philadelphia Record from a correspondent in Lower California :

"They tell us that the best year of modern times at the fisheries was that of 1881, though why the gems should be more plentiful at one time than another none can tell. During that year many were obtained of extraordinary size and great value. Among them was a black one weighing 28 carats, which sold in Paris for \$10,000. In 1882 an extremely lucky diver named Napoleano Savin found two treasures, weighing respectively 31 and 45 carats, which together brought \$11,000. During 1883 several notable specimens were found. Among them was a light-brown pearl, flecked with darker shades, which weighed 65 carats and sold for \$8,600. Another found by Savin was pear-shaped, white, shot with dark specks, which weighed 54 carats and sold for \$7,500. These were all sent to Europe and marketed there by Messrs. Gonzalez & Ruffo. In the same year one Pablo Hedalgo, a small merchant of La Paz, bought of an unknown Indian, for \$10, an oval-shaped pearl, for which he received in Paris the sum of \$5,500. It was a light sandy color, of surprising luster, and weighed 32 carats. White pearls, the kind we are most accustomed to survey, are not considered of as much value here or in France as the brown, gray, or speckled ones. Black pearls are still more valuable, and pink ones the most valuable of all."

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\*Simmonds: Commercial Products of the Sea, p.420.