

A JAP. HIS TRAINED OYSTERS and HIS MADE TO ORDER PEARLS



of nares and has, in fact, produced a pearl. Pearl farming, however, is not quite as simple as this description might lead one to believe. Sometimes the oyster dies. They suffer regular epidemics of mortality at times and more than once the whole nursery has been wiped out. Some oysters are natural mullineers and no sooner get back to their bed for the four years' rest than they calmly eject the inserted nuclei, and when the little brown operator comes around to collect the reward of his four years' patient waiting he finds nothing but a fat and silent oyster, toothsome, but innocent of jewelry. Oysters also have many natural enemies who have no more respect for Mikimoto's title to the ocean bed than they have regard for pearls as gems.

The evil most dreaded by the pearl farmer is the "red current." This is an accumulation of microscopic organisms so numerous that they give the water through which they pass a vermilion tinge. Wherever the red current appears it is followed by a wholesale destruction of marine organisms, and when it invades the pearl culture grounds it may undo in a day the work of years.

A seaweed known as mirumo, if allowed to grow too luxuriantly will cover up the pearl oysters and check their growth, sometimes smothering them to death. The octopus considers the pearl oyster a great delicacy and the starfish is a steady boarder at the oyster beds and eats oysters at every meal.

Most of the submarine work on a pearl farm is done by women divers. They attend to the transplanting of the oysters; they take them out of their beds for the operation that lays the foundation for the pearl and they put them back in the beds. The beds in which the oysters are laid for their four years' tussle with the nuclei lie seven fathoms deep and women are selected for the work, because in Japan they believe a woman can work better and longer under water than a man.

Only a small per cent of the oysters operated on produce pearls and many of these are useless on account of the shape and bad "skin." The culture pearl is usually found attached to the shell and great care is necessary in detaching. Many of them are fast to the shell, and where the culture pearl is found free it is to all intents and purposes the same as a natural pearl. These free pearls have a higher market value than those attached to the shell. As the result of many experiments it has been determined that the shape and size of the nuclei govern to a large extent the kind of pearl the oyster produces in the operation of covering the foreign body with the beautiful nacre. While there is still a large element of chance, the pearl farmer is now able to induce his oysters to manufacture more free pearls than they did in the early days of the industry. The experiments are still going on, and it is believed that before long the pearl farmer will be able to teach his oysters to follow specifications and build pearls in shapes to order. In this direction special attention is being given to the production of round pearls.

A few years ago Mikimoto had the honor of recounting for the edification of the mikado himself the story of his labors in training the gentle oysters to work for him, and the year following, by imperial decree, the pearl farmer was decorated with the order of the green-ribbon.



WOMEN DIVERS AT WORK, THE MIKIMOTO PEARL CULTURE STATION

These natural pearls are varied in size and shape as the luck of the divers. Some people, many of them, own no pearls and don't care much. Some own but one, and are satisfied to let it go at that. With many people, however, the possession of one pearl is the inspiration of a desire to possess another exactly like it in size and shape, and it is this desire for pearls to match other pearls that has made the game of pearl fishing peculiarly remunerative and of engrossing interest. The pearl is no longer the mystery it was when Ariel sang:

Fell fathoms are thy father's lies
Of his bones are coral made;
Those are pearls that were his eyes.

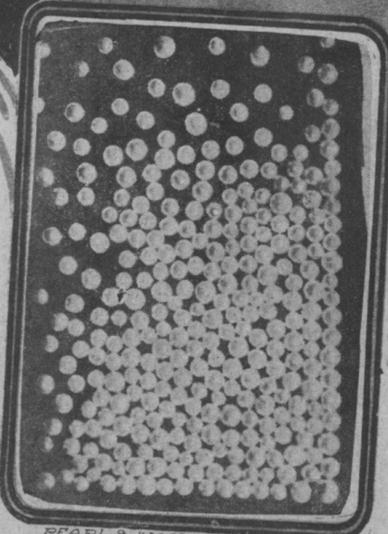
Molluscs are lined with a smooth and iridescent coating, which is called nacre or mother of pearl. This coating, like the rest of the shell, is produced by the animal, and is made up mostly of carbonate of lime and an organic matrix which usually presents a laminated texture. The color and brilliancy of this layer differs in various species. In the ordinary oyster it is a lustrous white, and of a greenish blue tinge turning to purple in the case of the abalone. In the shells of the true pearl oyster the nacre is of a clear, delicate white, which has the sheen of floss silk faintly tinted with azure, exhibiting a beautiful play of color, a quality which gives these shells their commercial value.

It often happens that foreign substances, such as sand grains, micro-

scopic organisms of various kinds, parasitic worms, crabs or even small fishes find entrance inside the shell or into the tissues of the mollusc's soft body. If it is inconvenient or impossible for the animal to eject the foreign body it does the next best thing. It encysts the irritating invader by depositing upon it the material which forms the nacreous layer of the shell. As layer after layer is deposited and polished the object increases in size and if the nacre happens to be the beautiful substance with which the pearl oyster decorates the inside of its shell, the result may be a priceless jewel.

Even clams produce pearls, but the clam nacre is of a dull white, and even though the visitor is coated with the best in the house the finished product is not worth much in the jewelry line. Mussels produce black pearls. The quank and the conch shells produce the pink pearls which are brought from the Bahamas and West Indies. Pink pearls are also sometimes found in mussels. It takes the true pearl oyster, however, to produce the "kooky pearl," the "pearl of great price."

Pearls are of many shapes. They are round, pear shaped, egg shaped, shaped like daisies, like bird wings and creeping worms. The round, pear shaped and egg shaped pearls are known as regular shapes or regular pearls. Those of irregular shape are called baroque pearls. Very small pearls are classed as seed pearls. The Chinese value the seed pearl as medicine. When two pearls are found joined together by the nacreous deposit they are called twin



PEARLS "MADE TO ORDER"

of the infrequency with which oysters occur in oyster soup, but more because the picture of a toiling oyster was a conception sufficiently grotesque to disturb the best balanced equanimity. Like some of the old time flying machine jokes, however, the time has come when the idea of an oyster working is no more grotesque than the suggestion that a man can fly across the bay.

The names of the men who have demonstrated their ability to join the sea-gulls in their daily game of tag with the Oakland ferry boats are now household words, and out in Japan there is a little brown wizard, Mikimoto by name, who has a whole army of oysters working for him.

These oysters are making pearls to order. Long before Cleopatra swallowed her famous cocktail the pearl was prized above all gems, and Levy, the pearl king of Tahiti, will tell you that the world today, like the merchant in the biblical parable, is still seeking goodly pearls. Mrs. Noah probably had pearls in the jewel skin she took with her

aboard the ark, and as King George's coronation this summer there will be clusters of pearls in the crown and ropes of them around the queen's neck. The story of the pearl would embrace the history of mankind. It would be a tale of chivalry and romance, of stirring adventure and hairbreadth escapes and a record of deep hued woe and crimson tragedy. There would be fair women and brave men in this tale, sirens and knaves, Borgias and male assassins, bankers and pawnbrokers, dusky princes and chocolate hued queens, burglars and detectives.

The pearls that have made all this history were found in oysters for which men risked their lives in shark infested waters in all parts of the world. They were the product of the pearl oyster. There are millions of pearl oysters, but only a few contain prizes. Divers may bring up the shellfish by the ton and in a whole season find never a pearl. The first oyster brought to the surface may contain a pearl worth thousands of dollars. The demand for pearls at ways has been greater than the supply,

By Lindsay Campbell

WHEN "Tell Them That You Saw Me" was at the height of its popularity somebody wrote a parody, in one verse of which a lone oyster, speared from a bowl of steaming liquid by a hungry diner, sang to the man with the fork. "Don't tell them that you saw me," and gave as reason for the request, "For I'm the only oyster working here." That line always won a laugh. Perhaps because