The Story of the Pearl

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Boston

Preface

With all that has been written about the pearl and its origin, there is still so much misinformation on this subject, even among persons of education and refinement, that this little booklet may prove of interest to those who would be informed in regard to this most fascinating and beautiful gem.

SHERMAN F. DENTON,
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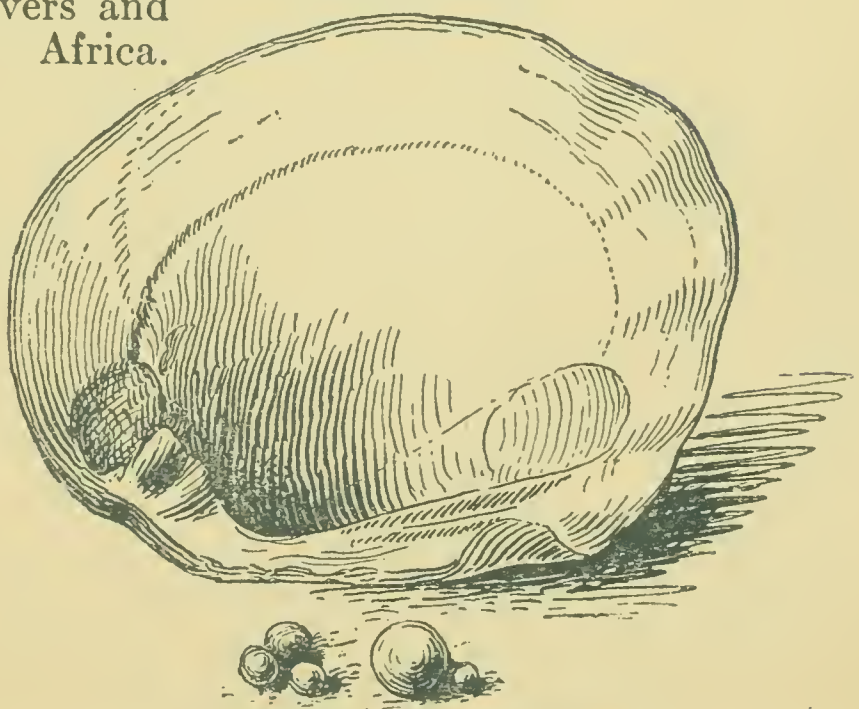
The Story of the Pearl

No one knows who discovered and first used pearls as ornaments. Before history began to be written, men loved and admired these precious gems as they do to-day. The American Indians had hordes of them when white men first set foot on this continent, and they are found in the mounds where they were buried with the bodies of the honored members of their tribes. But it is with the things of to-day that we are most interested. Where do pearls come from and how are they formed? The pearl oyster, *Meleagrina*, furnishes most of the finer pearls which come from the sea. These shells are found in the warm seas of many parts of the world; the Persian Gulf, Ceylon, Borneo, The Phillippine Islands, The Malay Islands, Panama, and the West Indies. The fresh water mussel, *Unio*, from which many of our most valuable pearls are taken, inhabits the rivers and lakes of the temperate parts of the world. China, Russia, Germany, England, Scotland and the rivers and great lakes of Africa.



Pearl Bearing Mussel and Pearls
Middle West

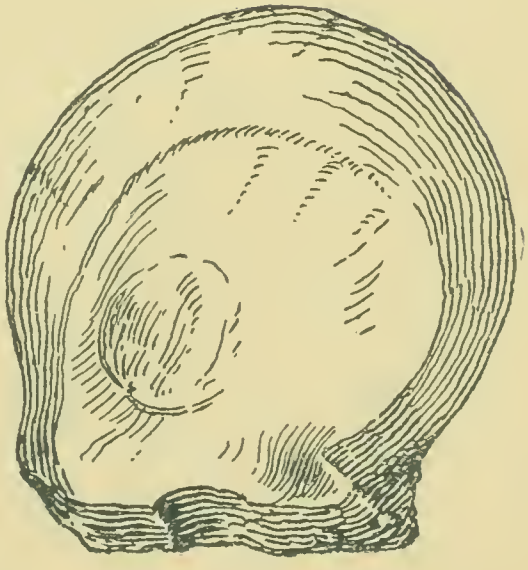
But it is in our own country that the *Unio* reaches its greatest size and perfection and where we have more species than the rest of the world combined. The streams flowing into the Atlantic Ocean along our Eastern sea-board, contain but few of these shells which are mostly small and inferior, but throughout the Mississippi valley, from the great lakes to the Gulf of Mexico, the rivers contain these mussels in great abundance, many of them noted for their great size and magnificent coloring.

Origin of the Pearl

The old theory that the pearl is caused by a grain of sand becoming embedded in the mantle or nacre-secreting portion of the mollusk and covered with layers of pearly matter, has generally been abandoned. Scientific research has shown that the origin of the pearl is a minute parasite which bores its way into the fleshy portion of the animal which, in self protection, encloses it in pearly matter to stop its further progress. This parasite is usually walled out and fastened down to the interior of the shell before it works its way deep enough into the mantle, to make a nucleus for a pearl. But on rare occasions, as a pearl is an abnormal growth, the parasite is enclosed in a fold or pocket in the fleshy mantle,

Sizes of Pearls in Grains

surrounded by nacre-producing cells. Year after year and layer after layer this nucleus is covered with the pearly matter as the animal grows, the fleshy pouch expanding to accommodate the increasing size of the pearl. As the mantle is constantly in motion, the pearl is slowly turned or revolved in its fold thus distributing the layers of nacre evenly upon its surface until with time, if the conditions are favorable, it becomes a thing of beauty, giving pleasure to all who behold it. Pearls are sometimes lost by the breaking of the walls of the enclosing pocket in which they grow and have been found in the beds of streams. Sometimes too, a mussel outlives its youth and vigorous maturity, all the while increasing the size of a pearl within its mantle; but with old age comes decay and the pearl becomes dead and lifeless. Then, as often happens, a pearl is found which at first appears worthless but whose outer coats enclose a bright and lively gem. In such a case the outer layers may be removed by careful manipulation and the pearl restored to its original perfection and beauty. Pearls of this class are called "peelers."



Pearl Oyster
Meleagrina Margaritifera

How Pearls Are Obtained

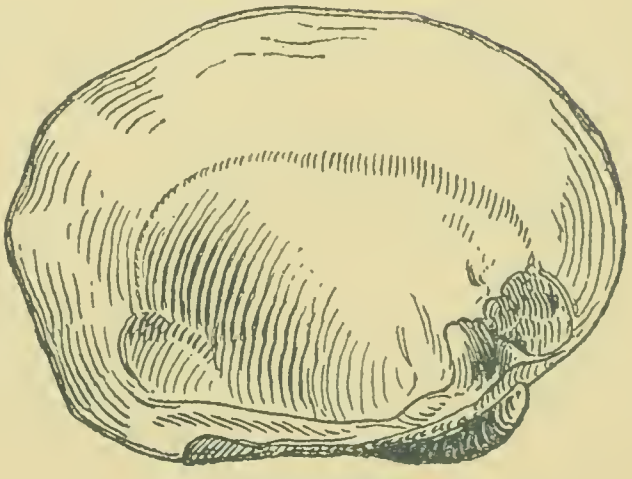
Most of the sea pearls are obtained by naked divers who descend from boats to the beds of pearl oysters, three to ten or more fathoms beneath the surface of the ocean. The shells are brought to the surface, loaded into boats and conveyed to land where they are opened and the pearls extracted, sorted and sold to the merchants. The fresh water pearl-bearing mussels frequently live in streams so shallow that they may be easily gathered. This is the case with the mussels inhabiting our New England brooks and rivers. In the rivers of the middle west, however, they are not often so easily obtained and rakes, forks, oyster tongs and iron bars with hooks attached are extensively used. The latter are dragged over the mussel beds, the hooks catching between the open valves of the shells. Many pearls are found by those who supply the button factories with shells for making pearl buttons. The difficulties to be overcome and the number of mussels to be gathered and opened are seldom appreciated by those who see the gems displayed in the jeweler's windows. To collect, carry ashore and open two thousand of these large shells is a hard day's work for a strong man, and as many as twenty thousand shells are occasionally opened without finding a pearl worth a dime. Again, the luck is much the other way, a man some-

times taking in one day, a dozen fine pearls. To find and extract a splendid gem from a mussel is an experience which appeals to the gambling instincts of many and compensates for the disappointments, inconveniences and hardships of the search. It is this chance of a "find" which induces the fisher to become an amphibious animal and to search the muddy bottom of the river day after day grappling for the mussels while his better judgment and the aches in his back and limbs would suggest a more sane manner of spending a vacation.

The number of mussels congregated on some of the shoals is truly appalling as the beds of some streams are paved with them for miles. The shells lie partly buried in the sand or mud with the thin edges uppermost. They are usually slightly open to allow the ingress and egress of the water from which they obtain their food.

Shapes of Pearls

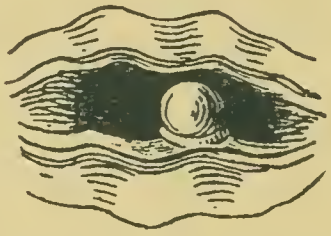
True pearls are distinguished by several characteristics from the irregular masses of nacre found in pearl-bearing mollusks, and known by the name of baroques. All true



Three Ridge
Unio Plicatus—from Middle West

pearls grow in the mantle of the bivalves and are wholly surrounded by the flesh of the animal. They are usually symmetrical, being spheres, hemispheres, drop, dumb-bell or oval in form and all are revolved as they grow, thus being spun into shape. Baroques on the contrary may grow in various parts of the interior of the shell fish but they remain stationary and are therefore irregular in shape.

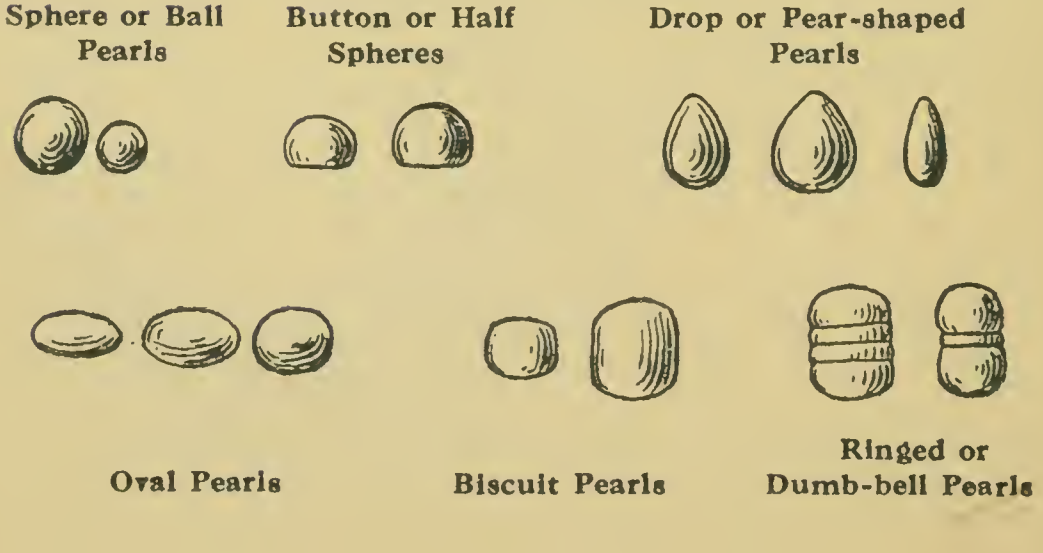
Upon opening a shell containing a pearl it may be seen to shine through the thin walls of the mantle which enclose it. An idea of the appearance of a spherical pearl in its pocket may be had from the following cut.



Pearl in Living Mussel

The fisher can usually tell at a glance, before removing it, whether he has found a valuable gem or only a shapeless lump of

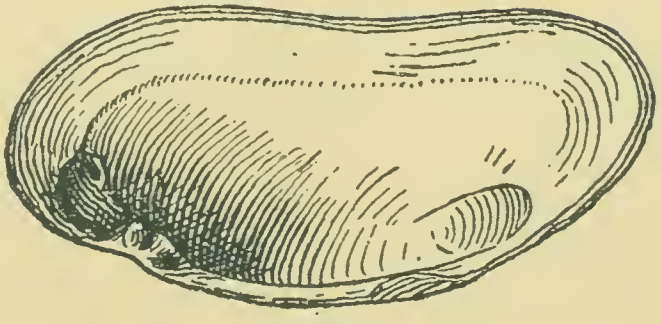
SHAPES OF PEARLS



nacre. The reader should not get an idea from this, however, that all pearls are valuable and that all baroques have little value. A pearl, round and symmetrical and as large as a pea but of a dead milky lustre may not be worth a dollar, while a fine, brilliant and irridescent baroque may be worth a thousand.

Ringed pearls often have a dull band encircling them but have bright ends. Biscuit pearls are not as attractive in shape as some others though they are sometimes very fine. Between round pearls, half spheres, drop and oval shapes it is difficult to say which are the most attractive. The half spheres and drop pearls are more often perfect but few can resist the appeal of a handsome oval or a perfectly spherical pearl.

Among the baroques, the nuggets and the rose or strawberry pearls are often very beautiful, the turtle backs coming next and the hinge pearls and slugs last. The nuggets and rose baroques are found in the mantle, and all that has prevented them from becoming pearls is the fact that they have remained stationary instead of revolving as all true pearls do. The turtle backs grow in the hollow near the back of the shell. They are sometimes of good color but are not often smooth. The hinge or wing



Gaper

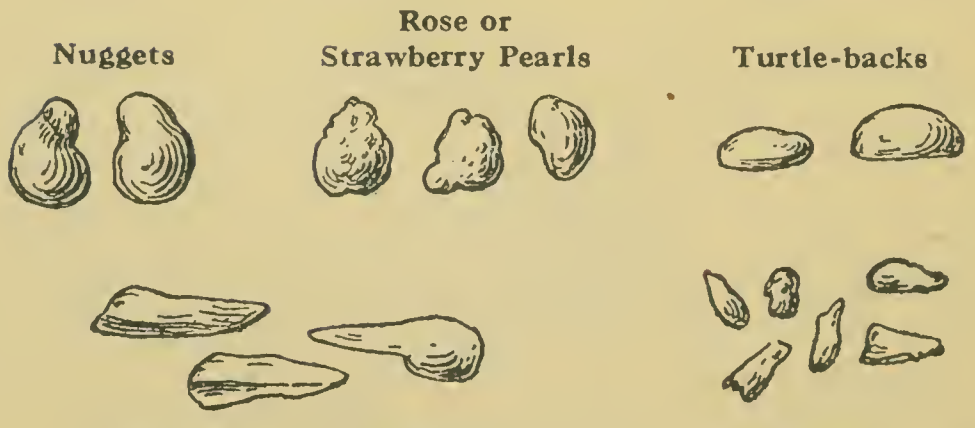
Unio arcuata—New England

baroques are found near the hinge of the shell and are usually long and pointed at one end. Slugs grow in or near the muscles which serve to draw the two valves of the shell together. They are always irregular, generally lack lustre and are therefore of little value.

Color and Lustre

Pearls are of as many tints as flowers, birds or butterflies and, while as a rule, they partake of the color of the lining of the shells from which they come, this is by no means always the case, as a white and a colored pearl may be found growing in the same shell, side by side. The tints and shades seem almost endless but it would indeed be difficult to say which color makes the most beautiful pearl. Some of the pearls found in Wisconsin are of such extraordinary color and lustre as to cause one to doubt, at first glance, their being pearls at all. Some resemble drops of liquid gold or copper, others are of an intense peacock green or blue while still others are a most exquisite rose pink or lavender. Blue-black, dark purple or dark green and purple

BAROQUES



bronze are not uncommon. Some of the salmon and golden pink tints are wonderful to behold and are well calculated to excite one's admiration. Even among white pearls there is always a slight tint of pink, green or blue so delicate however, that it is only seen by comparison. Yellow pearls, unless of a rich, clear color, are not as valuable as others, but a soft creamy tint is highly prized. Perhaps the fancy colored pearls show to best advantage when placed beside the white. A very pleasing combination may be made by placing a satiny white pearl between a leek green one and a rose pink.

A pearl of fine lustre will reflect a miniature of one's self, hair, eyes and teeth, and occasionally one is seen sufficiently brilliant to reproduce every feature of the landscape as well. The cause of the various colors of pearls is a subject about which very little is known, and why they are often so much more highly colored than the shells in which they grow, as, why one is green, another white and another pink, is a mystery.

Size

How large do pearls grow? All the way from tiny dots less than the size of a very small pin's head, up to specimens of three or four hundred grains in weight or beyond. But size alone has very little to do with the value of a pearl. A symmetrically shaped

and lustrous pearl of five grains may be more valuable than a misshapen bauble of one hundred. Very large pearls are rarely perfect. Perhaps the most satisfactory sizes are those between ten and twenty grains, but these are rare and costly. A perfect pearl of twenty grains, having a splendid lustre, would be worth to-day between one hundred and fifty and two hundred dollars per grain. Pearls of from five to ten grains in weight are large enough for most uses and they often make up in perfection and brilliancy what they lack in size.

Price

The price of pearls is reckoned by the square of the weight, thus: if the base price per grain is three dollars, a two grain pearl would be figured $2x2=4x3=12$. Therefore, a two-grain pearl would be worth twelve dollars. A four-grain pearl would be reckoned in the same way, $4x4=16x3=48$ or forty-eight dollars for the pearl. This rule applies to all symmetrical, first-class pearls except surpassingly fine ones which of course will bring fancy prices. As pearls increase in size, the base price per grain is increased. At five grains, the base will be four dollars and at eight grains, six dollars. On this base a ten-grain pearl will be worth six hundred dollars. Very slight imperfections reduce the value of the pearl from twenty to thirty per cent and greater ones

accordingly, while a chalky, dull gray or an inferior yellowish appearance may bring the value down, be the pearl ever so perfect in shape, to less than a tenth of that of a first-class gem. Good nuggets and rose baroques usually bring from five to ten dollars per grain. Turtle backs and hinge baroques from ten cents to two dollars per grain.

Imperfections

Absolute perfection in pearls as in other gems is exceedingly rare. Besides irregularities in shape, many pearls in their growth develop rings, pits and roughnesses. These injure the beauty and therefore the value of the gems. As before stated, a slight imperfection of any kind will reduce the value of a pearl greatly. But of all imperfections a lustreless, lifeless character is the worst. A pearl may lack symmetry, have pits on its surface and rings about its circumference, but if lustrous will still be worth something. Without lustre it is valueless. Many pearls are smooth and of good shape but have a milky appearance. This is a fault of most of the pearls found in our Eastern streams. Others have yellowish, greenish or brownish patches and still others a bluish, leaden cast. The Panama pearls often show this quality. All these imperfections detract greatly from or wholly ruin the beauty of the gem. A first-class pearl should be symmetrical, smooth, free from spots or flaws of any kind

and of a bright, lively lustre. The tint may range from a satiny white through all the shades of the primary colors to the darkest purple, green, red or blue but the lustre should be clean, clear and brilliant. Such pearls are rarely found except among those from the pearl oyster and the mussels of the Mississippi river and its tributaries.

Fallacies

How often one reads in the newspapers a sensational story of how Mrs. Blank, while eating an oyster stew, bit onto something hard and found to her astonishment that she was the possessor of a wonderful pearl which the local jeweler pronounced as valuable. This story is sometimes varied by the statement that the lustre of the pearl had been destroyed by cooking. If the "pearl" Mrs. Blank found had been what she supposed, the cooking would not have injured it, and if taken from an oyster, would have been worth no more than a gravel stone of the same size. The concretions of limey matter found in the edible oyster are never valuable for the reason that pearls are similar in lustre to the shells in which they grow and as the interior of the oyster is of a dull, grayish white and never pearly, the nodules of lime found in it are the same. True pearls are found only in shells which are nacreous or pearly.

One reads too, of pearls becoming sick

or dying. This seems to be a favorite story and is often repeated. It probably has its origin in the fact that the outer skin of a pearl, after years of wear, may become dimmed and lose a part of its lustre. As pearls are composed of concentric layers of nacre arranged like the coats of an onion, the outer layer if dimmed through wear may be removed, when a lively pearl will be found beneath. Pearls are among the most lasting of valuable things for although they are comparatively soft and may be easily scratched, they are very tough and one may be pressed beneath the heel or driven into a block of hard wood with a mallet without injuring it a particle. Pearls are solid to the center but they may, like the diamond, the hardest of all known things, be crushed by a blow from a hammer. Many suppose pearls need cutting or polishing to perfect them. On the contrary, the pearl is the only gem which leaves nature's laboratory, perfect and complete.

Imitations

Like many other rare and beautiful things, pearls are imitated more or less successfully but to tell the difference between the real and the spurious is not so difficult as it may at first seem. The most dangerous imitations are the culture pearls made by the clever Japanese who place beads of porcelain or mother of pearl under the

mantle of the living pearl oyster, and allow them to remain there until coated with a layer of nacre. These are often very beautiful but as they are held stationary against the shell and are not enclosed in the mantle and therefore cannot revolve, they are not pearls. The face of these culture pearls is rarely smooth and the back is fitted with a piece of mother of pearl to help round them out. As the only safe way to purchase pearls is unset, when all their imperfections may be readily seen, no one need be deceived by these imitations. As all are familiar with the ordinary pearl beads of glass coated with a substance prepared from fish scales to give them a pearly lustre they need not be discussed except to state that they are usually hollow but are sometimes filled with wax to give them weight. Other imitations of more recent date are the so-called reconstructed pearls. These are lustrous, solid and look a good deal like pearls at a little distance. The dealers in these imitations are fond of telling the story of their being made from small or baroque pearls which have been dissolved and reconstructed in some mysterious way into round and beautiful gems. It will hardly be necessary to state that there is not one word of truth in this story. If one will examine one or more pearls in a good light he may be certain of distinguishing them from the false by observing the following characteristics. As I write I

have before me a very beautiful, white, ten-grain, ball pearl taken from the Wabash River, Ill. The pearl is translucent and when held toward the light shows a delicate, light gray tint, darker toward the center. As it rests on its fluff of cotton one may see in it, first, about the circumference, a narrow space of light gray, then one of light purple changing to a delicate pink on the side away from the light. Then a splash of white light surrounded by light blue. There are also faint suggestions of emerald green, lavender and purple gray. All pearls show these peculiarities in a more or less marked degree, and no imitation I have ever seen has this property. It is this quality which gives to the gem its wonderful fascination and the lack of which renders all imitations so unsatisfactory.

Conclusion

Many well read and intelligent persons are surprised to learn that fine pearls are found in the rivers of this country. This is not at all strange when it is remembered that jewelers generally try to give the impression that it is only from the Orient, the land of romance and mystery, that valuable pearls are obtained. We once placed on exhibition in Boston at one of the high-class jewelers, a number of our native pearls, stating the circumstances connected with their collection. A few days later we

were astonished to learn from a friend who had made inquiry that they had all become Orientals. It is a safe assumption that half of the pearls sold in this country as Orientals come from the rivers of the middle west. The French are ready enough to purchase our pearls, while wealthy Americans who would scorn to buy a fresh water pearl in Boston knowing it came from the Iowa River, for instance, will pay double the price for the same gem in Paris if told it came from Ceylon. Many of the most magnificent pearls which were ever found have come from the rivers of Arkansas, Kentucky, Tennessee and Wisconsin, and we should appreciate and take pride in the matchless gems found in our own country. At the World's Fair in Chicago, one collection of Wisconsin pearls, outrivaled the display of Oriental pearls assembled by the gem merchants from all the great cities of the earth. One superb necklace of pearls taken from the White River, Arkansas, was sold in Paris for two hundred thousand dollars, and single American pearls have brought from five thousand to twenty-five thousand dollars each. The truth is, we have right here in our own country, along our great inland rivers, extensive beds of pearl bearing shells which produce gems of unsurpassed beauty.

At our home on Ox Bow Road, Wellesley Farms, Massachusetts, we have collections of pearls, jades and bronzes which we would be pleased to show to those interested. We are at home except during the summer months.

DENTON & DENTON.

SHERMAN F. DENTON. ROBERT B. DENTON.