

our little steamer sailed out of the harbor of Colombo, bound for the "pearly shores," for an anchorage a few miles off the port of Arippu, near which place the pearl-fishing fleet was to begin operations at the rising of the sun. In Cey-Ion the oyster beds are under government supervision, and about March of each year a great pearl-fishing expedition hovers over the waters of the Gulf of Mannar. The personnel of the fleet is made up of Malays, Arabs, Indians, Singalese, and those from various other branches of India's teeming millions.

The experience of the stranger with the unique fleet is not disappointing. The sight of thousands of divers from hundreds of little boats. plunging into the water or riding downward astride heavy weights, rising with their treasures, others returning to the watery depths, the habel of strange voices combine to paint a picturesque and lasting impression upon the mind of the visitor.

The waters around Ceylon and those of the Gulf of California have the richest pearl-producing oyster beds in existence. Situated on opposite sides of the earth, it is interesting to compare the work of the pearl hunters or divers, so far separated, yet pursuing many methods in common in the search for precious gems beneath the waters. In Ceylon upon a given signal the diving begins; the boats are small and hold comfortably eight or twelve persons. The men wear few clothes, and each man takes a turn at diving, for all of them appear to be experts. A rope with weight attached is thrown over the side of the boat, the diver attaches himself to the rope, and his assistant lowers him into the water. Other divers plunge downward unassisted. Around the diver hangs a bag, within which he places the oysters as rapidly as he can pick them from the sea bottom.

On the Mexican coast, of which La Paz is the general rendezvous, the method of pearling is much the same as in Ceylon. Many of the vessels used are larger, and the modern diving suit is more in evidence. There is usually a large sailboat called the "mother," and probably half a dozen smaller ones termed "luggers." The latter are manned by a crew of six or eight men, one or two of whom are divers. The small boats transfer their catches at frequent intervals to the larger vessel standing by, where the shells are opened and carefully examined for pearls.

What is a pearl? Before considering other pearl-fishing grounds, especially those of the Americas, it may be of interest to know just how the pearl is produced; that is, so far as the scientide reader is concerned. One of the shortest and most striking definitions is that suggested by a French scientist, who says "a pearl is the brilliant sarcophagus of a worm." Others go more into detail and declare that the growth of the pearl is often associated with a possible degree of annoyance or pain. The tiny deposit that finds itself within the shell of a mollusk or oyster may be introduced accidentally or purposely, as we shall see later. The foreign substance within the shell is believed to irritate the oyster and he begins to cover it with a series of thin layers of calcium carbonate. Little by little these peculiar layers are formed, and in a few years a beautiful pearl may be the result, or the formation may prove absolutely worthless.

Pearl-forming mollusks are widely distributed over the world, and they may be univalves or biyaives; in the former shape we sometimes find them in conchs and in the latter classification in clams and oysters. The subject in various ramideations has proved interesting and fascinating to investigators; but this story is only a general talk about the pearl, and the scientific details are left to those who make a serious study of the nature of this famous and much-prized ornament.

Salt-water pearl fishing in the Americas has been pursued from our earliest history, and while these pearling waters may not be as ancient as the fisheries of Ceylon or those of the Persian gulf, Columbus and those who followed in his often found uncivilized natives pearls of great value. Indeed, so many pearls were found off the Venezuelan coast that early explorers gave the name of "El Gulfo de las Perlas" to certain waters where the pearls appeared to be plentiful.

THE SHORE OFF THE COAST of CENTON

Today the pearl fisheries of Margarita island, off the Venezuelan coast, become active each autumn, when hundreds of small boats present a scene not unlike that of the pearl season of California or Ceyion.

Many of the expert divers of Venezuela have engaged themselves to an Ecuadorian company which is developing pearl fishing along the coast of that country. Near the little port of Manta the results have proved quite satisfactory, and during a recent year about \$20,000 worth of pearls were shipped to European markets.

About the shores of numerous islands in the Bay of Panama there are pearl fisheries. One of these islands, to which the name of Pearl has been given, has long been supplying pearls of greater or less value. The work about this and other islands of Panama bay is carried on like that of Lower California. One of the great difficulties encountered is the heavy tides of this section of the Pacific, which prevent steady work.

There are various other sections of the oceans that supply fine pearls, such as the shore of Queensland (Australia), the Red sea, New Guinea waters, about the island of Madagascar, and elsewhere. Generally speaking, an ordinary fishing boat party expects to secure several tons of shells a day, and possibly one shell in a thousand contains a pearl. The Mexican waters in which fishing is done are from 30 to 50 feet deep, and the fleet is active four to six months in the year, beginning operations in the autumn. A pearling expedition as equipped for the Mexican waters often costs \$10,000 to \$15,000 to outfit, and possibly at the end of the season the catch may not be worth half the amount expended. But if no mishap occurs to any of the little vessels the supply of mother-of-pearl shells obtained should be of sufficient value to repay the general outfitting expenses.

One of the allied industries of pearl fishing is that of obtaining valuable shells, which we know as mother-of-pearl. The latter are found generally along with the pearl fisheries; and often when no pearls exist within the oyster the shells themselves may be of considerable value.

Mother-of-pearl is defined as the "internal nacreous lining of the molluscan shell." This shell, as is well known, is in general use in our homes, where it is highly prized for toilet articles, for handles to knives, for buttons, and countless other services where a high polish and lasting qualities are desired. The monks and other inhabitants of Bethlehem are said to be among the world's most skilled workers in mother-of-pearl shells; the beautiful ornaments that come from that ancient city are highly valued in leading cities of Europe and America.

Pearls in the Americas, as in other countries. should now be within the reach of those of modest means. Today in world markets of London, Bombay, Paris or La Paz the pearl is selling for about half its ordinary value.

It is said that pearls from waters of the Americas are to be seen in the crowns of most European rulers. One of the most valuable pearls ever obtained in Mexican fisheries was sent to Paris and there sold to the emperor of Austria for \$10,000. On another occasion the government of Spain presented to Napoleon III a black Mexican pearl valued at \$25,000. The combination tints of black, blue and green are quite rare, and the Mexican and Panama pearls often combine these colorings, and apparently have reached pearl perfection.

MARKET IN

CEYZON

The Venezuelan fisheries produce annually more than half a million dollars' worth of pearls Many of the world's most beautiful gems have come from that country, and it is said that in 1579 King Philip of Spain obtained from near Margarita island a pearl weighing 250 carats, which was variously estimated to be worth from \$40,000 to \$100,000. The most perfect pearl in the world is said to be "La Pellegrina." a rare gem that is preserved in the Zosima museum in Moscow; it weighs 28 carats, is globular in form, and originally came from Indian waters. The world's largest pearl is in the Hope collection in the Victoria and Albert museum, London. It weighs three ounces and has a circumference

One of the world's leading authorities on pearls is Dr. George F. Kunz. According to a recent writer, the former says that a pearl of the finest grade should have "a perfect skin, fine orient or delicate texture, be free from specks or flaws, and be of translucent white color, with a subdued iridescent sheen. It should be perfectly spherical, or if not, of symmetrical shape. White or pink pearls are the finest, owing to their delicate sheen."

In China and Japan the mention of the pearl occurs in the history of those countries as early as 1000 B. C. Pearling industry in both nations has passed down through the ages, and even today it gives employment to many workers, skilled and unskilled. Visitors to Japan will be especially interested in Mikimoto's pearl farms at Argo bay; they are marvels of scientific accomplishment in the propagation of pearls. The methods pursued are more or less as follows: The young oysters are brought from the water, a serum is injected into the shell; this substance sets up irritation within, and the oyster, it seems, then begins to coat the offensive foreign matter with layer after layer of calcareous deposits. A few years pass and the same oyster is fished from the waters and his pearl-making work examined. Possibly a beautiful pearl may have been formed

Many so-called pearls seen today are but imitations of the genuine article, and some of them are so cleverly constructed that a trained eye is required to see the deception.

River or fresh-water pearls are found quite generally in temperate climes of the northern hemisphere, especially in the British isles, Saxony, Bavaria, Bohemia, Canada, and in many states of the Union. In several of the rivers of Ohio, in these of Wisconsin, Illinois, Arkansas, Tennessee, Kentucky, Texas, Michigan and other states, mussels have been found from time to time that contained good pearls,

# VT-OF-ORDINARY PEOPLE V

## "FIGHTING ARCHIE" HUNTER



Sir Archibald Hunter, whom Lord Kitchener placed in command of the third British army, has built up. during his forty years of service, a reputation for valor which the most seasoned campaigner might envy; moreover, he is loved and trusted by his soldiers, who know him as "Fighting Archie."

His brilliant career began with the Nile expedition, and later in the Sudan campaign he was severely wounded at Guiss, and was reward for his services with the D. S. O. In Egypt Sir Archibald Hunter was Lord Kitchener's right-hand man, and he commanded a division which was present at K. of K.'s triumph at Khartoum.

During a period of fifteen years almost continuous fighting Sir Archibald earned nineteen decorations and orders, and created a record by being promoted to the rank of general after only twenty-two years' service in

the army. If the kaiser is well acquainted with the history of the South African war, he will know that he has a dangerous antagonist in Sir Archibald Hunter, who will never admit defeat, and can be relied upon to find his way out of the tightest corner. For Sir Archibald played a conspicuous part in the South African campaign, and at its conclusion a public reception was proposed to honor the famous soldier.

But "Fighting Archie" is more at home on the battlefield than on a public platform, and he modestly refused the suggested ceremony.

# JULES BOIS' TRAGIC ROMANCE

When Jules Bois, the distinguished man of letters of France, was in America last spring those who were familiar with his life recalled the tragic romance of his early years that accounts for his deep interest in the advancement of woman

In his youth M. Bois fell in love with a woman who, loving him in return, was bound by a marriage unfortunate and at the same time, under the French law, indissoluble. The woman died in reality of a broken heart, and M. Bois, moved at once by her sad fate and his own sorrow, vowed his life to the cause of the emancipation of woman. It is from this standpoint that he views the war of the nations, concerning which he has the idea that the outcome will be for the woman what the revolution was for France. It is, he says, the '89 maternelle"-the date of the rights of mothers.

Underwood & Underwood

Government, he says, has been maintained and operated by brute force to no end but the incomparable slaughter of human life now going on, which writes in letters of blood on the page of political history that "it is not good for man to be alone." It is as little good for man to be alone in the government of cities and of states as in any other situation in life, therefore a new Eve is to come-the woman who will take her place beside man in politics empowered with rights commensurate with her duties.

# PEDDLER TO PROFESSOR



Leo Wiener, professor of Slavic languages at Harvard university, famous educator, author of numerous philological and literary works and father of the boy prodigy, Norbert Wiener, got his start as a teacher in Kansas City, where he once sold shoestrings on the seets. The story of his eight years here is a convincing proof of the theory that the successful man makes his own opportunities.

When the young Russian immigrant first went to Kansas City, after working on a Kansas farm, he was penniless and friendless. His first job was as janitor of a dry goods store. Then a French-Canadian peddler persuaded him to take up his own profession and supplied him with 25 cents capital. He started out with a paper box full of shoestrings and other things, and more than quadrupled his capital before evening. He prospered greatly and soon became known to the wholesale houses as a

bold and shrewd purchaser of slightly damaged goods. Then young Wiener discovered the public library, and thenceforth devoted to traffic only enough time to provide himself with necessaries. The rest of the time he spent in study in the library. Several years later he obtained a position as teacher in the Central high school of Kansas City. From there he went to the University of Missouri, and thence to Harvard.

### MILLIONAIRESS WHO WORKS

"I can't think of anything more stupid than days devoted to bridge tournaments, to pink-tea gossip and entertaining hosts of people in many of whom you have not the slightest interest.'

So says Miss Rosalie Jones, who has gained national prominence in connection with the suffrage movement, and, putting her ideas into practice, she has become an automobile saleswoman in New York. This would be in no way remarkable were it not for the fact that Miss Jones recently inherited more than a million dollars through the death of her father, Oliver Livingston Jones. The Jones mansion at Cold Spring Harbor, L. I., is one of the show places of a section noted for its handsome estates and overlooks 500 well-kept acres. Rosalie's family have closed their town house and taken up their allyear residence in the country, but Rosalie herself is living in a modest



hotel in the city and earning happiness and contentment as well as money. No woman can be self-respecting, she believes, who is dependent upon someone for a livelihood.

Miss Jones denies that she has lost interest in woman suffrage, asserting that, on the contrary, she is more than ever keenly alive to the need of the ballot for women.