

in width, was filled with rammed stone and earth. The other monuments underpinned were the Mam-museum, the openings to which were sunk outside the building so as not to disturb the paved floor, the Temple of Hathor, and colonnade and rooms of the Isis forecourt, the masonry in each case being carried down to R. L. 97. Furthermore, the gateways of Hadrian and Adelpheos respectively were strengthened.

The Coptic village, which comprised for the most part a collection of mud-brick dwellings in an advanced state of ruin, and constituted an eyesore, was almost entirely cleared away, and the sandstone contained therein was washed and used for the new masonry. Two Coptic churches and a few of the better houses, however, were left untouched.

During the excavations several stones and tablets freely inscribed with hieroglyphics were discovered, and these were carefully preserved for the Antiquities Department, to be subsequently deciphered.

The work was carried out by 300 native laborers and 26 Italian timber men and masons, under the supervision of four English inspectors. The work of underpinning was attended with constant and considerable danger, since the masonry of the buildings as already described had failed, owing to the undermining of the foundations, and was not able to withstand any further subsidence, such as might have ensued while the excavations were in progress. It was only by skillful shoring up and timbering, and constant vigilance, that the task was successfully completed without even an accident to either the laborers or monuments. With the extensive new foundations which have been supplied to these remaining valuable relics of the epoch of the Pharaohs, a new lease of life has been imparted to Philæ, sufficient to preserve the famous ruins indefinitely. In fact, the structures now rest upon a more substantial and solid foundation than they have at any time during their prolonged existence.

Lloyd's Wreck Returns.

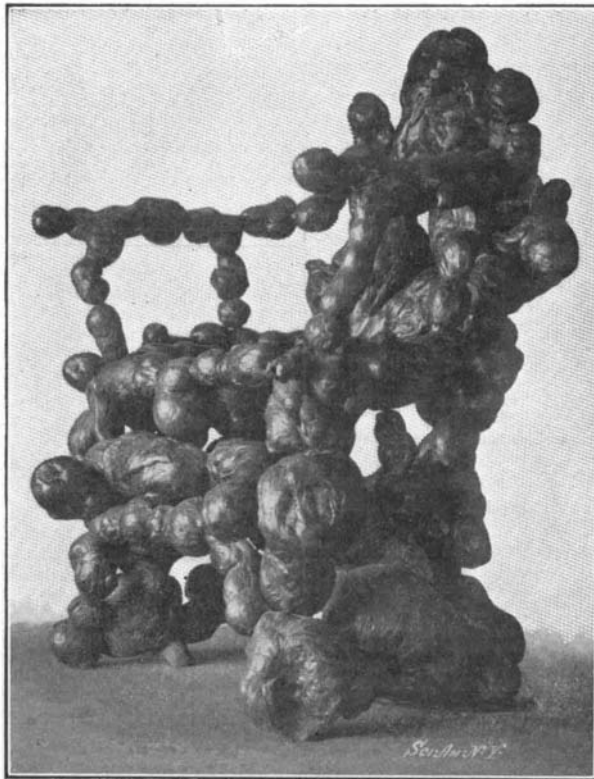
The returns of vessels totally lost, condemned, etc., during the quarter ended June 30, 1902, have just been issued by Lloyd's Register. These give particulars in reference to 45 steamers, aggregating 67,581 gross tons, and 89 sailing vessels, unitedly equal to 50,827 tons. Among the steamers the heaviest loss, 45 ships of 42,109 tons, comes under the head of "Wrecked;" while under that even more terrible heading "Missing" comes the second heaviest loss, viz., 3 ships of 10,135 tons. Collisions provide the next most serious item in these returns, 10 steamers, of 9,017 tons, figuring under this head. It is, on the other hand, satisfactory to find that no steamer was abandoned at sea in the quarter referred to. Among the sailing vessels the greatest losses were also due to wrecks, 43 ships of 20,946 tons being entered under this head alone. Four sailers, aggregating 5,258 tons, were burnt, and 10, of 6,612 tons, met their end by collision, while 6, of 5,105 tons, are reported missing. In apportioning the losses it is to be observed that the French nation had the lowest ratio in regard to their steamers, their figures being 1 ship of 559 gross tons, or 0.05 per cent of their total steam tonnage. The British Colonies were the worst sufferers in this class, their 4 steamers, of 4,332 tons, representing 0.57 per cent of their tonnage. The losses of British-owned steamers were 16 in number, their tonnage, 24,593 gross, equaling 0.19 per cent of our holding. In the matter of sailing vessels, France was also the most favored nation, her 7 sailers, of 1,405 tons, which appear in these returns representing but 0.34 per cent of her holding. The heaviest losers were the Dutch with 3.24 per cent of their total. Of British sailing tonnage exactly one-half per cent was lost, this being made up of 7 ships and 7,736 tons gross.

New French Submarine Boat.

The French Admiralty have decided upon the construction of a new submarine boat which will exceed in dimensions and displacement any yet attempted. Hitherto the largest submarine in that navy has been the "Gustave Zédé," of 266 tons, but this new vessel is to be of 350 tons. It will measure 160 feet 9 inches in length by approximately 9 feet draught. The boat will be driven by a single screw, and will have a surface speed of 11 knots. The torpedo armament will comprise four tubes. It is estimated that the cost of this vessel will amount of \$250,000, which is about a third more than the cost of the most expensive submarine yet built for the French navy. It is intended to be an offensive arm, being sufficiently large to attack an enemy's ports, and to cruise along the commercial routes.

AN ARMCHAIR FORMED BY NATURAL GROWTH.

The armchair pictured in the accompanying illustration may be said to have partly grown out of the ground, although its shape was furnished by twisting and turning a vine out of which most of its framework was formed. It was brought to the United States by a sea captain who saw it in a Korean city. The chair is studded or ornamented with seeds of the ginkgo tree of various sizes, which have actually grown to the fiber of the vine. A Korean gardener, familiar with the adhesiveness of the seed, took



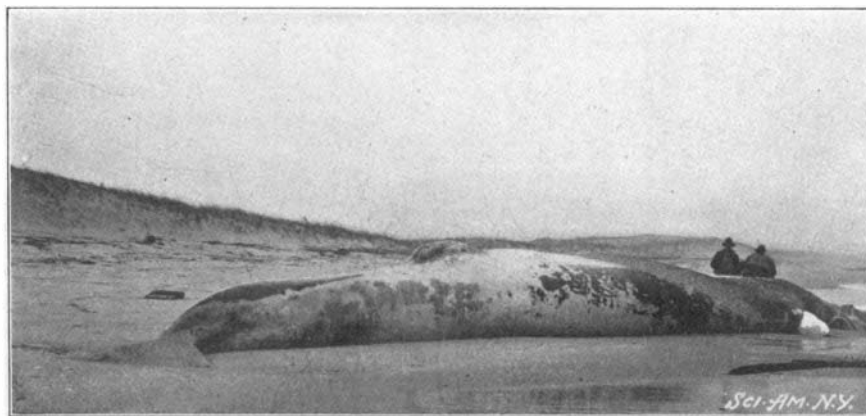
AN ARMCHAIR FORMED BY NATURAL GROWTH.

a native vine, noted for its toughness, and rudely made it into the form of a chair, holding it in place with branches of small trees. The seeds fresh from the tree were bound to the vine until they had firmly fastened themselves to it, the vine being allowed to grow in the meantime. After the seeds and boughs had become attached, the vine was cut from the roots, and this natural chair exposed to the sunlight until the sap had dried from the fiber and all of the material had hardened into a substance as solid as oak. It was then polished until its surface glistened like mahogany. Although but three feet four inches in height and twenty-five inches in width, the weight of this curiosity is over a hundred pounds, on account of the hardness of the material of which it is composed.

The armchair may well be regarded as a striking example of the gardening skill of the Far East.



Cutting Up the Whale for the Whalebone



The Dead Whale on the Beach.
THE LARGEST FINBACK WHALE.

THE LARGEST FINBACK WHALE.

BY WALTER L. BEASLEY.

The American Museum of Natural History has recently secured for its department of mammalogy a mighty leviathan of the deep, in the shape of a huge female finback whale, considered the largest specimen so far obtained, as it measures 68½ feet in length. The full-grown right whale averages from 45 to 50 feet in length only. This new specimen is a noteworthy contribution to science, and when mounted will form a striking exhibit of marine life seldom seen save by whalers and voyagers in the Arctic regions. The great creature was found stranded on the beach near Forked River, N. J., the latter part of November. Before the body came ashore it was first sighted a mile or so out on the shoals by the lookout of the life-saving station, from which point it appeared like an overturned schooner or craft of some sort. Acting on this supposition the life-savers launched their boat and pulled out to the assistance of a supposed wreck. On a near approach they discovered the true nature of the object, which was the great carcass of a dead whale. The pulling strength of the combined crew of ten men was not equal to moving this large, weighty animal from its stranded position, so all efforts in this direction were abandoned. The next day the heavy body was gradually pounded and pushed ashore by the incoming waves. On learning the news, Director H. C. Bumpus, Curator of the Department of Invertebrate Zoology, recognizing this as a favorable opportunity for securing a rare and splendid specimen, immediately sent Mr. George H. Sherwood, his assistant, and Mr. Figgins to investigate, and secure the body, if possible. Being first on the spot, they captured the prize ahead of other institutions. A number of local fishermen, however, had in the meantime laid claim to the big whale, but were induced to part with the same for a money consideration. A baby whale 16 feet long was also found near by.

The caudal fin or tail of the large whale measured 12 feet 4 inches from tip to tip, the body was 30 feet in circumference, and its estimated weight was about 75 tons. The length of the ponderous lower jaw was 14 feet 7 inches, and its open mouth could have more than taken in an average-sized horse. Her spacious interior, including mouth space, would more than shelter fifty men.

The specimen belongs to the group of whales known as genus *Balaenoptera*, which has a world-wide distribution. This particular species is named finner or finback by the whalers, who seldom hunt it, owing to the little amount of blubber and the small-sized whalebone it carries.

There were 375 plates two feet long on each side of the upper jaw of the whale. The right whale, the one regularly pursued for commercial purposes, has whalebone 12 feet long, and 25 to 50 barrels of blubber oil.

The color of the whale was slaty blue on the back, and white with some blue markings below. There were some eighty longitudinal folds and stripes on the ventral surface of the skin. The two bodies, after the measurements were taken, were buried in the sand to preserve their skeletons until spring, when they will be unearthed and taken to the museum for mounting in the near future.

The whale is highly prized by scientists for exhibition purposes, from the fact that it is one of the best examples known illustrating the influence of environment in the modification of structure. They are considered as descendants of terrestrial mammals which have assumed an aquatic existence—a change which has brought about very remarkable modifications in the structure of the animals. Some organs have become highly specialized, while others have completely degenerated. Teeth, for instance, which are a characteristic feature of land mammals, are entirely lacking in the adult finback, their place being taken in part by the whalebone. The fore limbs have ceased to be appendages of locomotion, and have become mainly balancing organs, and they still retain the structural plan of the mammalian fore limbs. The external fish-like form is perfectly adapted for swimming through the water, and the tail is not placed as in fishes, but horizontally. The hind limbs have disappeared entirely externally, and are represented by the rudiments of hind legs, which are found buried deep in the interior of the animal. These serve no practical purpose, but they serve to indicate its former life and habits as a land mammal and to show in a striking way the effect of environment.