## Scientific American

thing else to prolong life, poisoned at present by the oxyds of copper, lead, and iron, which we daily swallow with our food." Perhaps his contention on this point was correct. Who knows?

But fascinating as a glimpse of early beliefs in chemistry and medicine might be, the purport of this article is rather to mention a few of the charms, amu-

long, with a beam slightly in excess of 72 feet, she looked far less than her size when the huge basin was empty of water.

OPENING OF THE LARGE DRYDOCK AT LEAGUE

ISLAND.

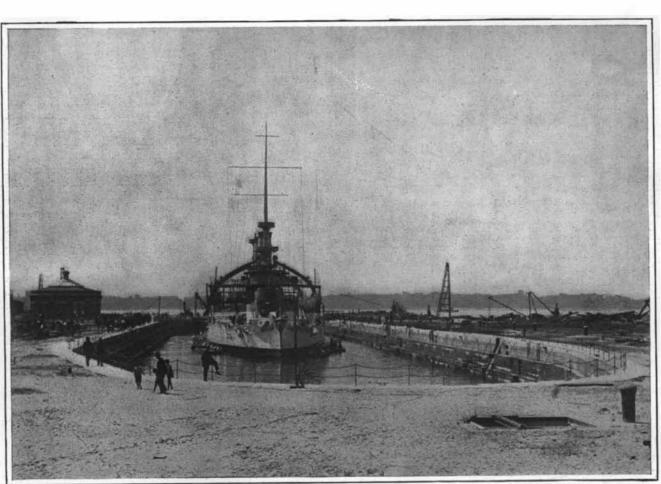
delay, has been opened to the nation's warships. So

large is this new dock, that although the "Kearsarge," the first warship to be towed into the dock, is 368 feet

The handsome drydock at League Island, after much

The length of the dock over all from the outer groove to the head of the dock is 750 feet; the length of the bottom is 698 feet; and the width amidships is 134 feet. The width at the bottom, amidships, is 80 feet. At the entrance to the basin the width is 102 feet at the top and 80 feet at the bottom. At mean tide the water over the sill is 30 feet deep, a sufficient depth to accommodate the largest battleship afloat.

The basin is built in courses of stone and concrete. narrowing as the bottom is a pproached. It represents four years of most arduous toil, and the mastering of engineering difficulties that were well nigh baffling. Two



Length over all, 750 feet. Width, 134 feet. Depth over sill, 30 feet, This View Represents the Docking of the Double-Deck-Turret Battleship "Kearsarge."

## OPENING OF THE LARGE MASONRY DRYDOCK AT LEAGUE ISLAND.

or three of the sub-contractors engaged upon the work were forced to suspend, unexpected physical problems arising which made the cost of excavating and building the elementary portions of the basin far more expensive than the government's appropriation would warrant. In constructing this expensive work, quicksand proved to be the most serious difficulty. This necessitated the driving of 4,000 piles to provide a foundation strong enough to prevent the massive superstructure and its loads from serious settlement. With this quicksand in mind, the engineers watched closely the docking of the "Kearsarge"; but even with the weight of the battleship added, the dock stood the test with every evidence of stability.

The walls of the new basin have an unusually steep pitch. This improvement makes possible the floating and docking of the largest war vessels in the basin with less water than would be required by a much smaller structure.

The drydock was authorized by Congress in 1898,

at the close of the war with Spain. It is the design of the Navy Department that each of the divisions of the Atlantic squadron shall have its particular drydock; and to League Island have been permanently assigned the "Kearsarge," "Kansas," "Georgia," "Maine," "Brooklyn," "Columbia," "Minneapolis," "Montgomery," "Dixie," "Prairie," "Yankee," and 'Panther The old dry dock

silver, flints into rubies, diamonds, sapphires, etc. By means of vegetable stones, men, beasts, birds, fishes, and plants could be made to grow and bear fruit. The magical stone enabled one to discover any person in any part of the world, as well as to understand the language of birds and beasts, while the "angelicall" stone endowed its possessor with divine gifts, causing angels to become manifested, besides conveying the power 'of conversing with them through dreams and revelations. Even such men as Lord Bacon and Sir Isaac Newton speculated on the so-called philosopher's stone, so that those of our day who visit mediums and believe in rappings and slate writings are no whit more credulous than they. Dr. Christopher Girtanner, a famous professor of Göttingen, prophesied as late as the last century that before it had passed the transmutation of gold would be generally known and practised. "Every chemist and artist," said he, "will make gold; kitchen utensils will be of silver and even gold, which will contribute more than anyincreased in proportion as there is mystery in their modes of life. Toads and other batrachians come under this category, and hence lizards which have been dried and neatly stretched upon bamboo splinters, are greatly in demand in China and other countries where the primitive medical man still holds sway. In Japan merely the skin of a snake is still supposed to be a sovereign cure for abdominal pains. Turtles, too, are regarded with great awe in China, and so are tigers' bones and carbonized monkeys' skulls, which are prepared by putting them into clay vessels exposed to heat until the crania are thoroughly calcined. Birds are also carbonized for medicinal purposes, and the nests of certain swallows, made out of the gelatinous substance of seaweeds partly digested and disgorged, are believed in that country to be most invigorating as medicine for the sick.

The Indian medicine-man does not by any means rely wholly on magic for his cures; he makes people

well by producing uncanny noises, which are believed to frighten away the spirits of disease. For this purpose a wooden rattle covered with buck-skin, and made up in the shape of a turtle, is often employed, while for similar purposes of exorcism the Tibetan lama wields a whip with a handle of human bone and lashes of human skin, while he beats upon a drum formed out of the upper parts of two human skulls. Charms and incantations were common among the Druids for the cure of diseases, and often the former consisted of nothing more than rags, old clothes, pins, or needles. In Persia there is a superstition that a patient has only to deposit a rag on certain bushes to obtain a cure. Pieces of garments that have touched the "pilgrim camel" are preserved with great veneration, and when persons are dangerously ill, they lay these things on their bodies as infallible

lets. or talismans.

in the efficacy of

which even now

millions of the in-

habitants of many

lands firmly be-

lieve. Perhaps

there is not one

among these

groups of objects

more curious than

the so-called Scy-

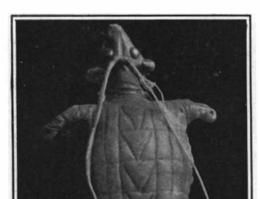
thian lamb-or in

China the "goldenhaired dog" (Kou-

chi)—which is

after all nothing more than a woolly root, but was actually esteemed as a drug of marvelous properties by the pharmacists of Europe during the sixteenth and seventeenth centuries, and was believed by reputable physicians to be half plant and half animal. In China it is regarded even now as a supernatural means of renewing youth. Where magical powers are bestowed through the medium of animals, the former are believed to be





at the navy yard is large enough to accommodate all except the largest of the battleships.

MAGICAL CURES. BY RANDOLPH 1. GEARE, From time immemorial people in almost all countries have believed in the curative properties of certain natural objects prepared by special methods, as well as in the supernatural power of images, idols, and fetiches of

all kinds. Stones of differ-

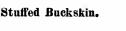
ent qualities have been sup-

posed to possess divine attri-

butes. Elias Ashmole, who

Sorcerer's Image (Korea) of Stuffed Buckskin.

Indian Medicine Man's Rattle.



MAGICAL CURES.

