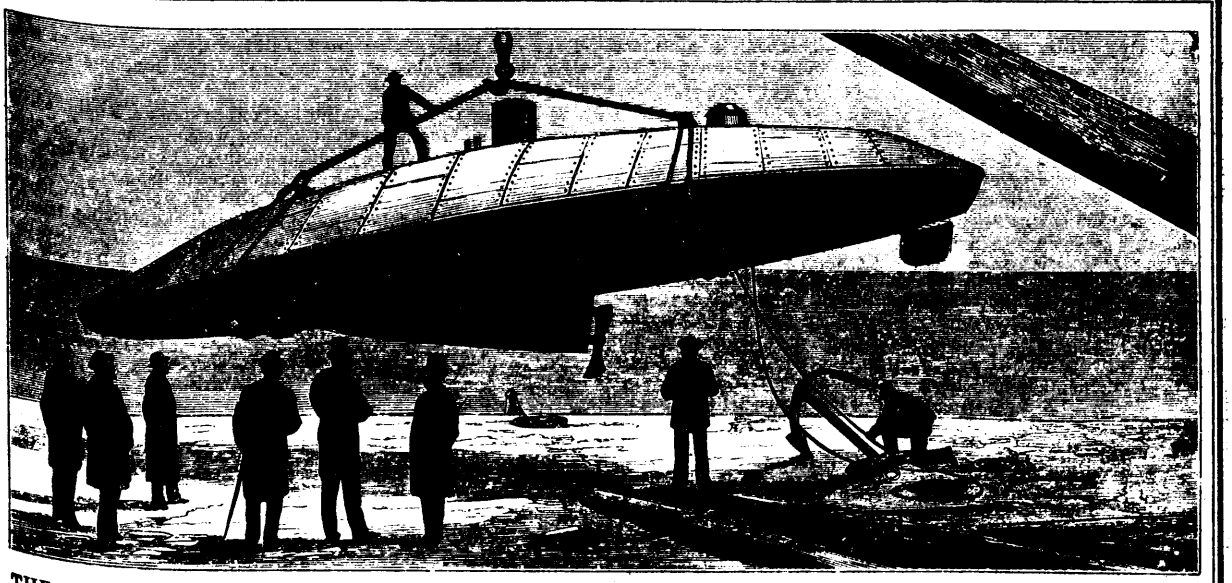

THE HERRESHOFF TORPEDO LAUNCH, RECENTLY BUILT AT BRISTOL, R.I., FOR THE ENGLISH GOVERNMENT.

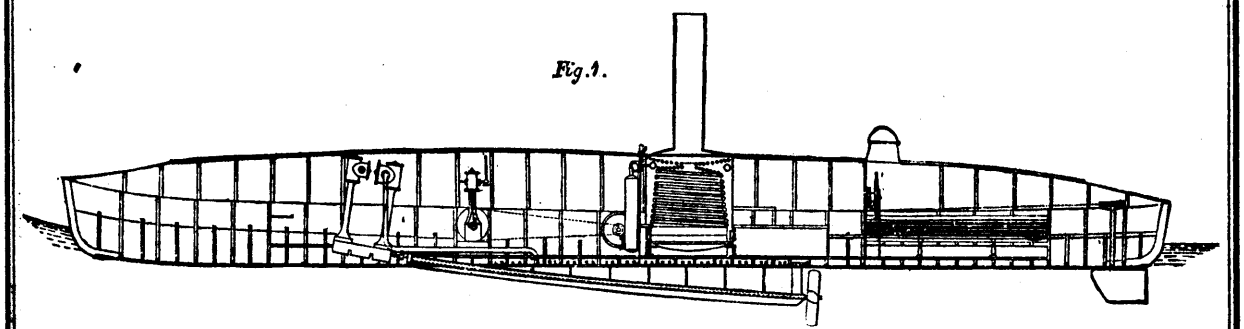

Fig. 1.

FIG. 2.—MACHINERY OF HERRESHOFF TORPEDO LAUNCH.

THE HERRESHOFF TORPEDO LAUNCH.

We are indebted for these engravings and description to the London *Graphic* and *Engineer*. This launch, as will be remembered, was built in Bristol, R. I., for the English Government. It arrived in the Thames on New Year's Day, having crossed the Atlantic on the deck of the National Line steamer *Denmark*.

The boat, which is shown in section in Fig. 2, is 59 feet 6 inches long, by 7 feet 6 inches beam and 5 feet 6 inches deep, with 1 foot 3 inches draught of water, there thus being 4 feet 3 inches of freeboard. Her working draught, however, is 4 feet 6 inches, as the screw and rudder are both placed below the keel. The vessel is constructed with five watertight bulkheads, and her hull is of composite construction below the water line, having a steel framing covered with wood planking. The upper part of the hull is wholly of steel, the plates being one sixteenth inch thick, the top side sloping inward, and the upper work forming a protective superstructure for the crew and machinery. She is propelled by a screw, which is placed beneath the vessel in a central position, and which is driven by a direct-acting condensing engine placed in the forward part of the boat.

The diameters of the steam cylinders are 10½ inches and 6 inches respectively, with 10 inch stroke, and they are of 100 horse power estimated. There is an independent feed pump and air pump. The stoke hole is inclosed, and is supplied with air by a Sturtevant blower, which is driven by an independent engine of 2½ horse power. The propeller is a two bladed screw, 38 inches in diameter and 5 feet pitch, the screw shaft being 23 feet in length. The vessel is steered by means of a balanced rudder placed a short distance from the stern and under the ship, the helmsman being located in a stern cabin with a protected lookout raised just above the deck. The hull and machinery together weigh 6 tons, but with the working crew of four men, and fuel, stores, and two torpedoes on board, the boat weighs about 7½ tons.

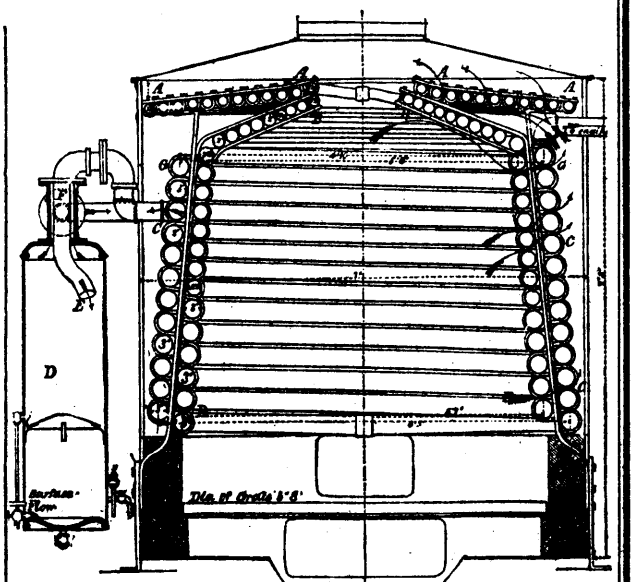

FIG. 3.—HERRESHOFF STEAM GENERATOR.

Steam is supplied by a Herreshoff coil boiler, which constitutes another novelty in this boat. The boiler, which is shown in section in Fig. 3, consists of a circular combustion chamber, which in the present instance is 4 feet in diameter internally, and within which is a coil of about 300 feet of 2 inch pipe, coiled