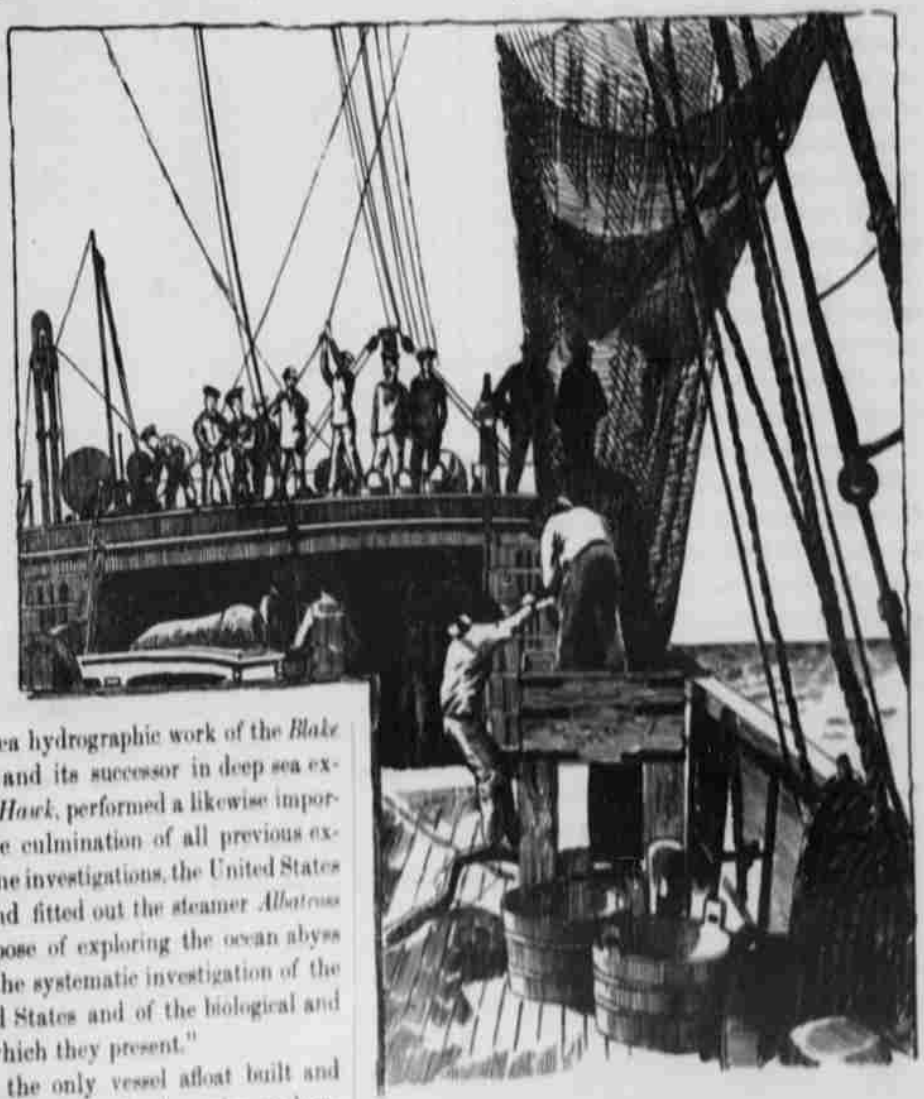
THE ALBATROSS AND HER WORK.

THOUGH the sea has always furnished an attractive field for the study of naturalists, it is only within the past quarter of a century that anything like a systematic investigation of the wonders of sub-marine life has been prosecuted. Previous to 1866 several exploring expeditions had incidentally examined the physical conditions of the strata of water below the surface, but no expedition had been fitted out for that purpose alone. The Italian, French and Scandinavian governments authorized expeditions for the study of deep sea life, and in 1872 the celebrated *Challenger* expedition was sent out by the British government and cruised three and a half years, traversing some 69,000 miles. The results of those explorations have been greatly extended by the operations of Americans in connection with the coast and geodetic survey. The deep sea hydrographic work of the *Blake* has become famous, and its successor in deep sea explorations, the *Fish Hawk*, performed a likewise important service. As the culmination of all previous experience in sub-marine investigations, the United States government built and fitted out the steamer *Albatross* for the express purpose of exploring the ocean abyss with reference to "the systematic investigation of the waters of the United States and of the biological and physical problems which they present."



UNLASHING THE TRAWL.

The *Albatross* is the only vessel afloat built and equipped for the special work of sub-marine exploration. It is also the only vessel operating exclusively in the interest of pure and applied science. This craft is now in Portland, and a brief description of the vessel and the nature of the service it is performing on the North Pacific coast is timely.

In 1881 congress made an appropriation of $145,000 for the construction of a ship to be used in explorations under the direction of the United States fish commission. Vessels previously employed had been deficient in seaworthiness, and their operations were consequently restricted to the examination of inshore waters. The new steamer was calculated to be able to follow the movements of fish in any part of the ocean, and she has fulfilled expectations. She was built in 1882, and, together with her outfit, much of which was designed especially for this craft, cost about $200,000. The vessel is of 384 tons register and 1,100 tons displacement. She is 234 feet long over all and twenty-seven and one-half feet beam. She is rigged as a brigantine. Her spars are of white pine and spruce and her hull of iron. She is a twin screw steamer. The propellers are driven by compound engines, independent of each other, and provided with steam reversing gear. The ship is heated and ventilated by steam and lighted by electricity. She has eight boats, two of which are furnished with steam power, the steam cutter being shown on the plate with the ship on the last page of this paper. The construction of the steamer was under the superintendence of Lieutenant-Commander Z. L. Tanner, whose previous experience enabled him to make important suggestions, and whose judgment really determined the plan