

SCOPE OF THE
CHALLENGER IN-
VESTIGATIONS.

expedition. The Challenger, a steam corvette of 2306 tons displacement and 1234 horse power, was selected for this service. She was fitted out under the direction of Admiral G. H. Richards, the Hydrographer of the time, and a committee of the Royal Society. In addition to an accomplished and experienced staff of Naval Officers, she carried six civilian scientific men appointed on the recommendation of the Royal Society Committee.¹ From December 1872 till May 1876 the Expedition was engaged in traversing all the Great Ocean Basins, taking observations and making collections. Every branch of Oceanographic science has in consequence been enriched by a grand accumulation of new facts. Large collections were sent home and brought home, and have been described by specialists belonging to almost every civilised nation. The results have now been published by the Government in fifty large royal quarto volumes, the present volumes being the concluding ones of the series. The Expedition was successful beyond the expectations of its promoters, and opened out a new era in the study of Oceanology.

Since the return of the Challenger, the work of the Expedition has been largely intermixed with all subsequent abysmal researches carried out by British and foreign expeditions, these being, in many respects, supplementary or limited to special regions of the ocean, none of them partaking of the world-wide and general character of the Challenger explorations. It is not proposed in this place to do more than indicate generally the scope of the investigations carried out by these subsequent expeditions.

AMERICAN EXPEDI-
TIONS.
"TUSCARORA."

At the same time that the Challenger was engaged in the exploration of the Pacific, the U.S. Ship "Tuscarora" ran several important lines of soundings across that ocean. Wire sounding lines were made use of, and one greater depth was recorded than the Challenger's deepest sounding. In addition to temperature observations, a large and valuable collection of deep-sea deposits was preserved which threw much light on the distribution of organic and inorganic materials on the Pacific sea-floor.²

"BLAKE"
EXPEDITIONS,
ALEXANDER
AGASSIZ.

Between the years 1877 and 1880, the U.S.S. "Blake" was engaged in a detailed examination of the basins of the Caribbean Sea, the Gulf of Mexico, and the Florida coasts of North America, under the able direction of Alexander Agassiz. The scientific results of these expeditions have been made known in a large number of publications issued from the Museum of Comparative Zoölogy of Harvard University at Cambridge, and Agassiz has summarised the results and discussed their bearing in a general account of the voyages.³

The U.S.S. "Albatross," while engaged in the work of the U.S. Fish Commission, has

¹ Professor C. Wyville Thomson, J. Y. Buchanan, H. N. Moseley, John Murray, R. von Willemoes-Suhm, and J. J. Wild.

² G. E. Belknap, Deep-sea soundings in the North Pacific Ocean, obtained in the U.S.S. "Tuscarora," U.S. Hydrographic Office No. 54, Washington, 1874.

³ See Agassiz, Three cruises of the U.S. Coast and Geodetic Survey steamer "Blake," from 1877 to 1880, *Bull. Mus. Comp. Zool.*, vols. xiv., xv., Boston and New York, 1888.