

have been prosecuting a most careful and elaborate survey of their coast-line; and latterly the Coast Survey, under the late Professor Bache and the present energetic head of the Bureau, Professor Pierce, has pushed its operations into deep water, particularly in the Gulf-stream region north-westwards of the Strait of Florida. Dredging operations have been conducted most successfully under Count Pourtales, and it will be seen hereafter that his results are a valuable complement and corroboration of our own. The Swedish Government has twice executed careful soundings in the sea between Spitzbergen and Greenland and to the south-west of Spitzbergen; in 1860 under the direction of Otto Thorell, and in 1868 through the Swedish Arctic Exploring Expedition under Captain Count von Otter of the Royal Swedish steamer 'Sophia.' In 1869 the Swedish corvette 'Josephine' sounded and dredged in the North Atlantic, taking soundings to the depth of upwards of 3,000 fathoms, and discovered the 'Josephine Bank,' with a minimum depth of 102 fathoms, in lat.  $36^{\circ} 45' N.$ , long.  $14^{\circ} 10' W.$  to the north-west of the Strait of Gibraltar. The North-German Polar expeditions greatly increased our knowledge of the Spitzbergen and the Greenland Seas; and finally, on December 20th, 1870, the American nautical school-ship 'Mercury,' Captain P. Giraud, crossed the Tropical Atlantic to Sierra Leone, which she reached on the 14th of February, 1871. She left Sierra Leone on February 21st, and soundings and other observations were continued till she reached Havana on the 13th of April. The object of this expedition and the character of the observers are