

Piano wire
used for
sounding.
Lord Kelvin.

distribution of temperature in that ocean and of the deep-sea deposits covering its floor. Piano wire was first used for oceanic sounding work on board the "Tuscarora," though for some years previously Sir William Thomson (Lord Kelvin) had been experimenting with it on board his yacht.

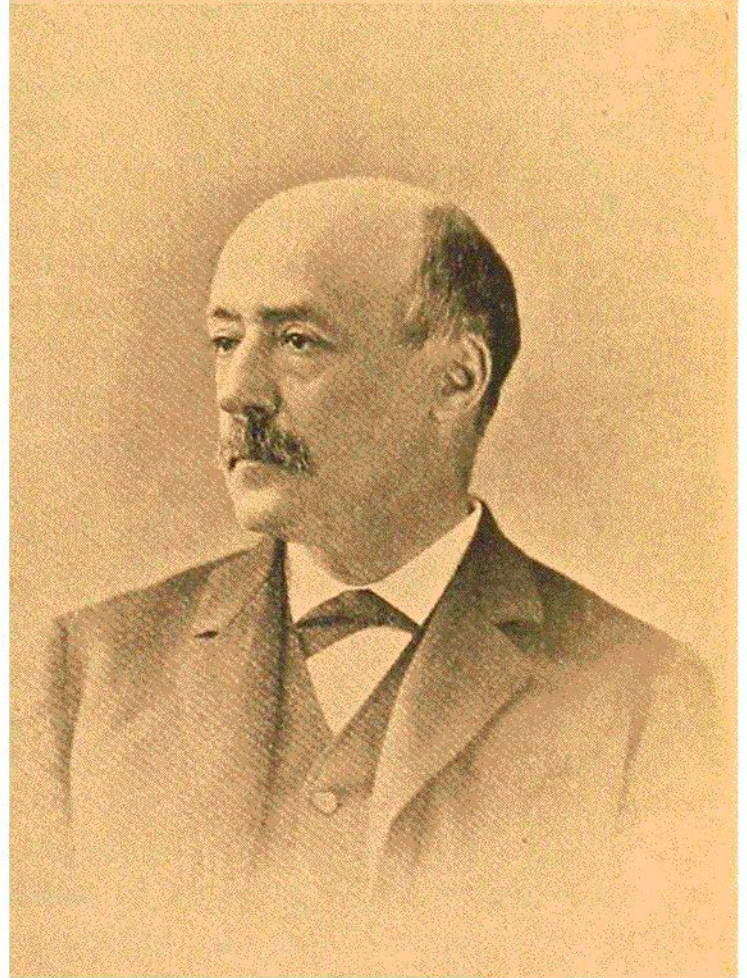
The
"Gazelle."

Also contemporaneous with the "Challenger" Expedition was the circumnavigating cruise of the German ship "Gazelle," during which many valuable oceanographical observations were recorded.

The "Gettys-
burg."

In 1876 the U.S.S. "Gettysburg" took a series of deep-sea soundings in the North Atlantic, and in the years 1876 to 1878 the Norwegian North Atlantic Expedition on board the S.S. "Vöringen" made important physical and biological observations in the seas between Norway and Greenland, making thus the first survey of the Norwegian Sea; the scientific results were published in English and Norwegian.

The
"Vöringen."



DR. ALEXANDER AGASSIZ.

Alexander
Agassiz.
The "Blake."

From 1877 to 1880 the United States Coast Survey steamer "Blake" explored the Caribbean Sea, the Gulf of Mexico, and the coasts of Florida, under the direction of Alexander Agassiz, who published in 1888 a general account of the results. At the same time the U.S. Fish Commission steamer "Albatross" was engaged in making observations along the Atlantic coast of the United States, and later, in 1891, explored the Panamic region of the Pacific under the direction of Alexander Agassiz.

The
"Albatross."

During the "Challenger" Expedition the naturalists became convinced, as a result of their observations in different parts of the world, that a ridge must separate the bodies of cold and warm water found by the "Lightning" and "Porcupine"