

cone is continued beyond this by a number of groups of needle-shaped spicules which surround a narrow oscular opening. All parts of the sponge are loaded with triple-toothed 'bihamate' spicules of the sarcode.

On the 5th of August the 'Porcupine' steamed into Tangier Bay, after ineffectually trying to dredge in 190 fathoms off Cape Spartel. In Tangier Bay two casts were taken at a depth of 35 fathoms. The fauna was chiefly British, with a few more southern forms.

On the 6th of August Mr. Jeffreys went to Gibraltar, and there yielded up the reins to Dr. Carpenter, going on to Sicily *via* Malta, for the purpose of examining the newer tertiary formations in the south of Italy, and the collections of fossil shells at Catania, Messina, Palermo, and Naples, in connection with the results of his cruise.

On Monday, the 15th of August, Captain Calver, with Dr. Carpenter, who fortunately retained the services of Mr. Lindahl as assistant, in charge of the science department, steamed out into the middle of the Strait for the purpose of commencing a series of observations on the currents of the Strait of Gibraltar.

These experiments, which at the time were not considered very satisfactory, were repeated and extended in the summer of 1871 by Captain Nares, R.N., and Dr. Carpenter, in H.M.S. 'Shearwater.' Their curious results have been given in great detail by Dr. Carpenter in the Proceedings of the Royal Society of London, and by Captain Nares in a special report to the Admiralty. As it is my purpose to