

south and west coast of Ireland, where a depth of 2400 fathoms was reached with successful results; and the third part extended over some portion of the survey of the previous year (between the coast of Scotland and the Farøe Islands). On the termination of this voyage (taking into account the time occupied and the extent of the investigations), the cruise of the *Porcupine* was considered to have done more to advance our knowledge of the physical condition of the ocean than had been achieved by any former expedition that ever left our shores.

In 1870 the *Porcupine* was again engaged in the service of the Council of the Royal Society, and proceeded at first in a south-westerly direction towards the farthest point to which the survey extended the year before, and afterwards to the coast of Portugal, and to Gibraltar, where a vast quantity of interesting and important data was obtained. In addition to the sounding and dredging, thermometric observations were constantly taken, proving even more successful than those obtained during the previous voyages. The results showed unsuspected variations in the deep-sea temperature, the existence of a general oceanic circulation, and the presence of life at the greatest depths. The scientific and practical importance of the facts revealed by these short and imperfect inquiries was such as to render their continuance a matter of national concern: so much so that the Council of the Royal Society brought before