that these observations were made with registering thermometers guarded somewhat in the same way as those which we employed in the 'Porcupine.' There is almost sufficient internal evidence that the mode of protecting these thermometers must have been satisfactory, for the temperatures at the greatest depths are such as might have been expected from Miller-Casella thermometers. Unguarded instruments would certainly have given higher indications.

The last of the observations quoted, a considerable way up Davis' Strait, is of great interest. The temperature of the surface of the sea was nearly a degree and a half Centigrade above that of the air, and the temperature of the water was altogether unusually high. It is now well known that at certain seasons of the year a very marked extension of the Gulf-stream passes into the mouth of the Strait. The isotherms for September and July are shown on the chart from data kindly procured for me by Mr. Keith Johnston.

Sir Edward Sabine, in an extract from his private Journal of Sir John Ross's voyage quoted by Dr. Carpenter, gives a lower temperature than any hitherto recorded. He says: "Having sounded on September 19th, 1818, in 750 fathoms, the registering thermometer was sent down to 680 fathoms, and on coming up the index of greatest cold was at  $25^{\circ}.75$  Fahrenheit ( $-3^{\circ}.5$  C.), never having known it lower than  $28^{\circ}$  ( $-2^{\circ}.2$  C.) in former instances, even at a depth of 1,000 fathoms; and at other times

<sup>&</sup>lt;sup>1</sup> Dr. Carpenter's Preliminary Report on Deep-Sea Dredgings. Proceedings of the Royal Society of London, vol. xvii. p. 186.