

47, 90, 49, 50, and 51, are in the warm area. There is no great difference in depth between the two series of soundings; and there is no indication of a ridge separating them. The only possible explanation of these two so widely different submarine climates, existing apparently under the same circumstances and in close proximity to one another, is that the Arctic indraught which passes into the deeper part of the Færoe Channel is banked in at its entrance, by the warm southern stream slowly passing northwards. There is a slight but very constant depression of the isothermal lines of surface temperature in the shallow water along the west coast of Britain. This, I believe, indicates that a portion of the cold Færoe stream makes its escape, and, still banked in close to the land by the warm water, gradually makes its way southwards, so mixed and diluted as only to be perceptible by its slight effect on the lines of mean temperature. Diagrams 55 and 56 illustrate the distribution of temperature in the cold and warm areas respectively; and in Fig. 57, the results of the serial soundings Nos. 52, 64, and 87, are reduced to curves. From these diagrams, taken together, it will be seen that in the first 50 fathoms there is a rapid fall of nearly 3° C. Station No. 64 is a good deal farther north than the other two, and the surface temperature is lower, so that the fall, which is nearly to the same amount, starts from a lower point. The surface temperature is doubtless due to the direct heat of the sun, and the first rapid fall is due to the rapid decrease of this direct effect. From 50 to 200 fathoms the temperature in all three cases falls but little, remaining considerably above the normal temperature