

fathoms in thickness ; and finally the deep cold layer into which these soundings do not penetrate very far, through which the temperature sinks almost imperceptibly from 4° C. The difference between these soundings and those of the year before at the mouth of the Bay of Biscay is that the temperatures at all depths are somewhat higher.

I refrain for the present from going into any detail with regard to the distribution of temperature in the Mediterranean, further than to give a mere outline of the remarkable conditions which were observed there by Dr. Carpenter.

Dr. Carpenter's observations were principally confined to the western basin of the Mediterranean, and during the months of August and September the surface temperature averaged between 23° C. and 26° C. On two occasions only the surface temperature fell considerably lower, and the fall was attributed in both cases to the influence of the colder surface current passing from the Atlantic through the Straits of Gibraltar. The following table of the series taken at Station 53 gives about the average rate of fall of temperature for the first 100 fathoms :—

Surface	25° 0 C.
5 fathoms	24 · 5
10 "	21 · 6
20 "	16 · 4
30 "	15 · 5
40 "	14 · 1
50 "	13 · 6
100 "	13 · 0

and Dr. Carpenter made the remarkable observation that "whatever the temperature was at 100