temperature has by the author of the present chapter been called the *potential temperature*, a term used in meteorology. Potential temperature.

Station. Depth to the bottom.	Depth of observation in metres.	Temperature *in situ*.	Potential Temperature.
10 A 4700 m.	3000 4500	2.43° C. 2.55°	2.16° C. 2.08°
49 C about 5400 m.	3950 4950	2.42° 2.46°	2.03° 1.92°
63 5035 m.	4000 4850	2.35° 2.37°	1.95° 1.85°

From these and many similar observations it is seen that the temperature in the deepest strata of the North Atlantic is about $2\frac{1}{2}$° C. (as a rule a little lower). The temperature of the deepest strata below 2000 fathoms appears to remain almost constant through long periods of time, the variations probably not amounting to more than a few hundredths of a degree. Very delicate instruments are necessary to detect them, and as yet we have insufficient observations to enable us to study the details.

It is apparent from the tables that the temperature would fall several tenths of a degree if the "deep-water" were raised to the surface without being heated by mixing on the way. This we have been able to prove in a direct way by means of the insulating water-bottle, which we used at Station 91 at a depth of 4750 metres, the temperature inside the water-bottle after hauling up being only 2.00° C., whereas the water at that depth was in reality several tenths of a degree warmer. When *in situ* the water has the temperature indicated by the reversing thermometer, but when brought to the surface it has the potential temperature nearly indicated by the thermometer inside the insulating water-bottle. Granted that no other change has taken place, the bottom-water must have had a temperature of about 2° C. at the time when it began sinking down from the surface; as it sinks the temperature gradually rises, and at Station 10 A, for instance, it was found to be 0.12° C. higher at 4500 metres than at 3000 metres. Some such increase of temperature towards the bottom has long been suspected as an effect of the internal heat of the earth; as early as about 1840 Aimé looked for it, but his methods