there is a much larger body of water above them heated by conduction, convection, and mixture.

The section between Montevideo and the meridian of Tristan d'Acunha includes, besides the soundings on the South-American plateau and the soundings on the "cold wall," a series of soundings crossing the south-western trough with an average depth of 2750 fathoms and an average bottom temperature of $-0°{\cdot}4$ C., and a few soundings on the middle ridge of the Atlantic, with an average depth of 1850 fathoms and a mean bottom temperature of $+1°{\cdot}3$ C. There seems to be little doubt that in the trough a huge mass of Antarctic water, at temperatures ranging from $+1°{\cdot}5$ C. to $-0°{\cdot}6$ C., is creeping northward at depths greater than 1800 fathoms. On the central rise very little water at a temperature lower than $+1°{\cdot}5$ C. passes northward; but that is only on account of the absence of the required depth, for the isothermobaths of $1°{\cdot}5$ and $2°$ C. are practically at the same levels respectively over the central plateau and over the trough. But the evidence seems equally cogent that the water at depths less than 1800 fathoms, and at temperatures higher than $1°{\cdot}5$ C., is part of the same mass, and is moving in the same direction. We can trace the same strata continuously over the trough and over the eastern and north-western basins, the temperature of each layer only very slightly rising, as has been already shown, to the northward.

Suppose a mass of water at a temperature gradually sinking from the surface downward (Fig. 57) to be flowing slowly in a certain direction, and suppose the course of that water to be intercepted by a barrier which rises to the height of the layer of water at a temperature of $2°{\cdot}0$ C. Suppose at the same time that the water beyond the barrier is not constitutionally prone to alter its temperature, and that it is quietly drawn off before it has time to do so from any external cause. It seems clear that the water beyond the barrier will be of the uniform temperature to the bottom of the stratum of water which is passing