

the Cape, but the alteration was by no means gradual, for on one day it varied more than 5°; and as these variations did not take place on those days which were bright and sunny, it was concluded that they were due to the Agulhas Current.

On the 28th, at 7 A.M., a series of temperatures at intervals of 10 fathoms down to 100 fathoms was taken. At noon on the same day a second series was taken 15 nautical miles to the southwest of the Cape of Good Hope, and it was found that in the interval the ship had passed into the loop of the Agulhas Current, which curls round the Cape close to the land. The contrast between the two series is remarkable.

A Series of Temperature Observations taken just before, and one taken immediately after, entering the Agulhas Current, October 28th, 1873.

Depth.	7 A.M.	Noon.
Surface.	58°2	62°0
10 fathoms.	58·5	62·8
20 ,,	58·0	62·2
30 ,,	58·0	61·5
40 ,,	56·8	60·5
50 ,,	54·5	58·5
60 ,,	54·2	57·0
70 ,,	52·9	56·0
80 ,,	52·9	55·0
90 ,,	53·0	54·0
100 ,,	52·9	51·8

The temperature of the air likewise rose perceptibly, the thermometer in the shade indicating at noon 58°·8, nearly three degrees above the average of the same hour during the previous week.

The temperature of the bottom water varied from 35°·2 to 34°·2, the lowest result being obtained at 2325 fathoms 130 miles west of the Cape.

The serial temperatures showed that the isotherm of 40° occupied a mean depth of 370 fathoms, varying from 320 to 400 fathoms, the maximum depth being in the centre of the section, and the minimum at the Cape. The isotherms of 45° and 50° indicated this peculiarity in a still more marked degree, for they may be said to be bow-shaped. The isotherm of 55° was irregular (see Diagram 6).