

current, the breadth of which was found to be about 250 miles, and the temperature of the surrounding sea was influenced to a depth of at least 400 fathoms. It was intended to have made a close examination of this enormous body of heated water, which is derived from similar sources as the Gulf Stream of the Atlantic, and exercises such great influence on the climate of the Cape and its adjacent seas.

The heated water of the Indian Ocean, forced to the westward by the north-east monsoon and south-east trade-winds, has only one outlet, the sea south of the Cape. On arriving there, it is met, and stopped, by the cold Atlantic easterly drift current, produced by the continuous westerly winds of the higher latitudes, which is sufficiently powerful to turn it aside and absorb it. It is then driven to the south-east and eastward, the two bodies of water intermixing. This drift also prevents any branch of the warm current passing to the northward round the Cape.

The strong winds now met with prevented a closer examination, but from the observations made it appears that the water in Table Bay, derived from the South Atlantic, is usually 10° colder than that in Simon's Bay, 30 miles to the southward, which is derived from the Indian Ocean. But on the approach of a north-west wind the Atlantic water drives the Indian water out of Simon's Bay, and occupies its place. Thus the water of the bay is liable to sudden changes of temperature to the extent of 10° or 12° .