

1842, a reference to which will show, as previously mentioned, that the mean temperature of the sea is invariably warmer than that of the air during the winter months. Now, as it is a fact well ascertained that the current in the vicinity of the Falkland group sets from the southwest towards the northeast, and as this current is warmer than the air, there can be but one way of accounting for its heat; that is, by supposing it to derive this warmth from lower latitudes in the Pacific, and to be carried by the prevailing winds and configuration of the land round Cape Horn and northeastward to the Falklands.

That this agrees with the temperatures recorded on the western coast of Patagonia will be seen by referring to No. 11 pamphlet of the Meteorological Committee, as the mean temperature of the sea in the squares adjacent to the coast is from  $2^{\circ}$  to  $4^{\circ}$  higher than that of the air during the months of May, June, and July. On leaving the Falkland Islands and standing to the eastward, vessels generally obtain colder surface temperatures than those at the group. In the Challenger a decrease of  $3^{\circ}$  was registered to the northeastward of Port Stanley.

What the width of this warm portion of the Cape Horn Current is, remains to be determined, and also whether its speed is greater than that of the drift current farther south. The available evidence points to a considerable velocity at times, for the "Chanticleer" registered a speed of 54 miles in 23 hours between Cape Horn and Staten Island in May. During the "Beagle's" stay in the vicinity of Tierra del Fuego, surveying, the current was always found running to the eastward, but its velocity varied with the tidal wave, being at its maximum with a rising and at its minimum with a falling tide.

A series of charts, showing the surface temperatures of the Atlantic, Indian, and Pacific Oceans, has recently been published by the authority of the Meteorological Council, in which many more observations are given off Cape Horn.<sup>1</sup> These observations confirm this conclusion, but observations closer to the shore than those on the charts would probably show a still higher temperature of the surface waters. As there is very considerable interest attached to this current around Cape Horn, it is to be hoped that further observations will soon be made.

The following table will give a fair idea of the climate of the settlement at Port Stanley, but as the observations extend over one year only, the means will be subject to modification from future observations. The barometer used in taking the observations was a standard, and its indications agreed precisely with those of the instruments on board the Challenger, which were verified at Kew at the termination as well as at the commencement of the voyage.

<sup>1</sup> Charts showing the Surface Temperature of the Atlantic, Indian, and Pacific Oceans. London, 1884.  
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