

wards to the eastward of the West Indian Islands. I am myself inclined, without hesitation, to regard this stream as simply the reflux of the equatorial current, added to no doubt during its north-easterly course, by the surface-drift of the anti-trades which follows in the main the same direction.

The scope and limit of the Gulf-stream will be better understood if we inquire in the first place into its origin and cause. As is well known,—in two bands, one to the north and the other to the south of the equator,—the north-east and south-east trade-winds, reduced to meridional directions by the eastward frictional impulse of the earth's rotation, drive before them a magnificent surface current of hot water 4,000 miles long by 450 miles broad at an average rate of thirty miles a day. Off the coast of Africa near its starting-point to the south of the Islands of St. Thomas and Anna Bon, this 'Equatorial Current' has a speed of forty miles in the twenty-four hours, and a temperature of 23° C.

Increasing quickly in bulk, and spreading out more and more on both sides of the equator, it flows rapidly due west towards the coast of South America. At the eastern point of South America, Cape St. Roque, the equatorial current splits into two, and one portion trends southwards to deflect the isotherms of 21°, 15°·5, 10°, and 4°·5 C. into loops upon our maps, thus carrying a scrap of comfort to the Falkland Islands and Cape Hoorn; while the northern portion follows the north-east coast of South America, gaining continually in temperature under the influence of the tropical sun. Its speed has now increased to sixty-eight miles in twenty-four hours, and by the union