

received from the sun by the Arctic regions, and, reduced by a half to avoid all possibility of exaggeration, it is still equal to one-fifth of the whole amount received from the sun by the entire area of the North Atlantic. The Gulf-stream, as it issues from the Strait of Florida and expands into the ocean on its northward course, is probably the most glorious natural phenomenon on the face of the earth. The water is of a clear crystalline transparency and an intense blue, and long after it has passed into the open sea it keeps itself apart, easily distinguished by its warmth, its colour, and its clearness; and with its edges so sharply defined that a ship may have her stem in the clear blue stream while her stern is still in the common water of the ocean.

“The dynamics of the Gulf-stream have of late, in the work of Lieutenant Maury already mentioned, been made the subject of much (we cannot but think misplaced) wonder, as if there could be any possible ground for doubting that it owes its origin entirely to the trade-winds.”¹ Setting aside the wider question of the possibility of a general oceanic circulation arising from heat, cold, and evaporation, I believe that Captain Maury and Dr. Carpenter are the only authorities who of late years have disputed this source of the current which we see, and can gauge and measure as it passes out of the Strait of Florida; for it is scarcely necessary to refer to the earlier speculations that it is caused by the Mississippi river, or that it flows downwards by gravitation from a ‘head’ of water produced by the trade-winds in the Caribbean sea.

¹ Herschel, *op. cit.* p. 51.