

It is not easy to understand Captain Maury's view. He traces all ocean currents to differences in specific gravity. He says: "If we except the tides, and the partial currents of the sea, such as those that may be created by the wind, we may lay it down as a rule that all the currents of the ocean owe their origin to the differences of specific gravity between sea-water at one place and sea-water at another; for wherever there is such a difference, whether it be owing to difference of temperature or to difference of saltness, &c., it is a difference that disturbs equilibrium, and currents are the consequence."¹ These differences in specific gravity he attributes to two principal causes; differences in temperature, and excess of salts produced by evaporation. Captain Maury explains his views as to the first of these causes by an illustration. "Let us now suppose that all the water within the tropics to the depth of one hundred fathoms suddenly becomes oil. The aqueous equilibrium of the planet would thereby be disturbed, and a general system of currents and counter-currents would be immediately commenced, the oil in an unbroken sheet on the surface running towards the poles, and the water as an under-current towards the equator. The oil is supposed, as it reaches the polar basin, to be reconverted into water, and the water to become oil as it crosses Cancer and Capricorn, rising to the surface in intertropical regions, and returning as before." "Now, do not the cold water of the north, and the warm water of the gulf made specifically lighter by tropical heat, and which we see actually presenting

¹ The Physical Geography of the Sea, and its Meteorology. By M. T. Maury, LL.D.