

CHAPTER XXIX.

BRITISH CLIMATES AND THEIR CAUSES—RAINFALL IN
DIFFERENT AREAS—AREAS OF RIVER DRAINAGE.

BEFORE discussing the subject of rivers and river-gravels and alluvia, I now come to other phenomena connected with the physical structure of our island and its geography generally; and first, with regard to the rain that falls upon its surface. If we examine the best hydrographic maps of the Atlantic, we find on them numerous lines and arrows showing the direction of the flow of the ocean currents as first drawn by Captain Maury. One great current flows from the Gulf of Mexico, where the water in that land-locked area within the tropics is exceedingly heated; and flowing out of the gulf, it passes E. and NE. across the ocean, and so reaches the European area of the North Atlantic. So marked is the heat of this immense current that, in crossing from England to America, the temperature of the water suddenly falls some degrees. Twenty years ago, in crossing the Atlantic, I was in the habit early in the morning of taking the temperature of the water with one of the officers of the steamboat. We then found that at about five o'clock in the morning for several days, the temperature of the sea was always about four degrees above the temperature of the air, but quite suddenly, in passing out of the Gulf Stream, at the same hour of the morning, the temperature of