

**THE EARTH,  
FRAMED AND FURNISHED AS A  
HABITATION FOR MAN.**

*Concluded.*

**II. WARMTH.**—But our time has been nearly all spent in bringing in the water, while our house is neither warmed nor lighted yet. How the heat is conveyed to the earth, distributed, retained, and regulated, cannot now be noted. Omitting all the great central facts and laws, let us glance at one or two characteristic incidents.

Besides its own proper functions, water performs an important part in the transmission and distribution of heat. Indeed she seems to have been engaged as maid-of-all-work in the house; it would be hard to say what the patient drudge is not expected to do; and yet she was never heard to complain. She does all her work well and cheerfully. Among other things, she makes herself useful in the custody and application of heat. Both the earth and man are cooled at times, and heated too, by water. There is nothing equal to a warm bath, either for a cold continent or cold feet. The coast of Labrador, on the other side of the Atlantic, in the same latitude with these islands, is an icy desert: the reason of the difference is, that they get a cold bath all the year round, while we get a warm one. How the other side is supplied with cold water, you may easily perceive. A current right from the North Pole flows constantly along the coast, studied at certain seasons with icebergs, more beautiful than kindly. Our hot water reaches us by a process more complicated, but equally constant and sure. On the map of America, look to that great bosom which lies between the northern and southern portions of the continent, the Gulf of Mexico. It is the most circular of seas: and why has Nature deviated from her usual rule of irregularity, to form an almost perfect circle there? Because these our islands, lying in a northern latitude, needed hot water, and a pot must be provided for holding it. The Gulf of Mexico is the great tea-kettle of Great Britain. Poor Mexico seems to have the singular faculty of keeping both herself and her neighbors in hot water. The rotundity of that vast cup secures that the stream of water which flows into it from the coast of Africa,

and is heated during its passage under the equator, shall be thrown out on its north-eastern brim, in such a direction and with such a velocity, that it bathes the coasts of Great Britain and Ireland all the year round with a gently-flowing current of moderately warm water. The great oceanic current called the Gulf-stream, with its graceful bend and fan-like spread, is precisely like the last comet's tail, but neither so large nor so alarmingly quick in its motions. Some of our neighbours fret against our supremacy at sea. To deprive us of it, they build big ships; but two can play at that game, and they will probably not succeed. I shall give them a hint: if they could pierce the Isthmus of Panama, and send the contents of our tea-kettle straight through into the Pacific, farewell to Britain's commercial wealth and naval power. The Mersey would be frozen eight months of the year. But the isthmus has a bone in its sleeve: the merchants of Liverpool may invest in yet one dock more.

Next after the Gulf-stream, we are indebted to our coal-beds for the quantity of heat which is necessary to make us comfortable. Some recent writers have done good service by earnestly directing attention to the wonderful process by which the coal-cellar of the house was filled long before the family took possession. Vegetations inconceivably exceeding in vastness all that we now know, grew and faded alternately upon this globe, during many ages, while they were apparently useless to creation. Had a solitary philosopher, born before his time, obtained a footing on the world then, and been permitted to make his observations, he could have given confirmation strong as Holy Writ, that no one wise and provident Being presided over creation. Witness,—he would have said,—witness all this waste! Aye; witness this other waste,—these heaps of dirty torn rags lying within and around yonder factory; and do these supply evidence that the manufacturer has lost his wits or never had any? In some of the finest of human works, waste is most precious; a pure paper rises from the grave of these soiled rags.—In the Creator's purposes the vast vegetation of a chaotic world was needed: it was allowed to run waste, because it was waste that the Omniscent Operator wanted as the raw material of the manufacture which