

(21.) But how shall I attempt to convey to you any conception of the scale on which the great work of warming and lighting is carried on in the sun? It is not by large words that it can be done. All "word-painting" must break down, and it is only by bringing before you the consideration of great facts in the simplest language, that there is any chance of doing it. In the very outset here is the greatest fact of all—the enormous waste, or what appears to us to be waste—the excessive, exorbitant prodigality of diffusion of the sun's light and heat. No doubt it is a great thing to light and warm the whole surface of our globe. Then look at such globes as Jupiter and Saturn and the others. This, as you will soon see, is something astounding; but then look what a trifling space they occupy in the whole sphere of diffusion around the sun. Conceive that little globe of the earth, such as we have described it in comparison with our six feet sphere, removed 12,000 of its own diameters, that is to say, 210 yards from the centre of such a sphere (for that would be the relative size of its orbit)! why, it would be an invisible point, and would require a strong telescope to be seen at all as a thing having size and shape. It occupies only the 75,000th part of the circumference of the circle which it describes about the sun. So that 75,000 of such earths at that distance, and in that circle placed side by side, would netism); or than his plan for writing books by the concurrence of accidental letters, and selection of such combinations as form syllables, words, sentences, &c., which has a close parallel in the learned theories of the production of the existing races of animals by natural selection.