more elementary branches of mathematics may suffice. The chain is laid before us, and every link is submitted to our unreserved examination, if we have patience and inclination to enter on such detail. Hundreds have gone through it, and will continue to do so; but, for the generality of mankind, it is enough to satisfy themselves of the solidity and adamantine texture of its materials, and the unreserved exposure of its weakest, as well as its strongest, parts. If, however, we content ourselves with this general view of the matter, we must be content also to take on trust, that is, on the anthority of those who have examined deeper, every conclusion which cannot be made apparent to our senses. Now, among these, there are many so very surprising, indeed apparently so extravagant, that it is quite impossible for any inquiring mind to rest contented with a mere hearsay statement of them,—we feel irresistibly impelled to inquire further into their truth. What mere assertion will make any man believe, that in one second of time, in one beat of the pendulum of a clock, a ray of light travels over 192,000 miles, and would therefore perform the tour of the world in about the same time that it requires to wink with our eyelids, and in much less than a swift runner occupies in taking a single stride? What mortal can be made to believe, without demonstration, that the sun is almost a million times larger than the earth? and that, although so remote from us, that a cannon ball shot directly towards it, and maintaining its full speed, would be twenty years in reaching it, it yet affects the earth by its attraction in an inappreciable instant of time?—a closeness of union of which we can form but a feeble, and totally inadequate, idea, by comparing it to any material connection; since the communication of an impulse to such a distance, by any solid intermedium we are acquainted with, would require, not moments, but whole years. And when, with pain and difficulty, we have strained our imagination to conceive a distance so vast, a force so intense and penetrating, if we are told that the one dwindles to an insensible point, and the other is unfelt at the nearest of the fixed stars, from the mere