by these conditions. Supposing the foot of the most remarkable person who ever lived to be marked out on steel or adamant, it would be at the mercy of fire, earthquake, loss in political convulsions, and a hundred other forms of destruction or disappearance, without the possibility of reappeal to the original form. Of human works, the most permanent, no doubt, and the most imposing as well as generally interesting and respected, are those mighty monumental structures which have been erected as if for the purpose of defying the powers of elementary change. Take the vastest of them-that to which appeal has been often made for this very purpose -the great pyramid of Cheops. When built it was 481 ft. in height, and the square area of its base was 764 ft. in the side. The height is now only 451 ft. and the side of the base only 746; and the sole means by which we are now enabled to determine the original height consists in a block of the exterior marble casing which will in all probability disappear in the hands of "the curious" within the next century. Nature presents to us but one material object which combines all the requisites enumerated, and combines them all in perfection-viz. : the globe itself that we inhabit. And in that globe we find only two naturally-defined lengths which unite the requisites of individuality to identify them under every change of human relations and even of geological revolutions and catastrophes, and of universality, so as to stand in the same relation to both hemispheres and to all meridians-viz. : the earth's polar axis, and its equatorial circumference. For the latter, the equatorial

427