

going to say will be already well known to a portion of them, but will be quite new to many,—and I will try to put it in such a way as shall not only be clearly intelligible, *but shall stick by them*, and become part and parcel of their minds and thoughts henceforward—and I am mistaken if many of this class of hearers (provided they will give me the attention the thing requires) do not rise from the perusal of this brief statement with much larger and higher conceptions of the magnificent system we belong to than they commenced it with.

(8.) The sun, as we all know, or may have heard, stands immovable, or nearly immovable, in the centre of our system, and all the planets, including the earth, circulate or revolve round it, each in its own time and at its own proper distance. These distances, for each planet, stand to each other in relations of proportional magnitude, which have become, by a long course of astronomical observation and calculations, known to us with extreme exactness, so that if the exact distance of any one of the planets from the sun, or the exact interval between any two of their orbits, can anyhow be ascertained in miles, yards, or feet, the dimensions of all the rest in similar units of measure may thence be derived. Supposing, for instance, we knew exactly the interval between the orbits of the earth and Mars, then if we would know the respective distances of the several planets in their order from the sun, it would only be necessary to multiply that interval, in the case of Mercury, by the decimal fraction 0.7392; in that of Venus by 1.3812; of the Earth by 1.9095; of Mars by 2.9095; of Jupiter by