9·9349; of Saturn by 18·2146; of Uranus by 36·6293; and of Neptune, the most distant of the known planets, by 57·3551.*

Now the interval between the earth's orbit and that of Mars (or the distance between that planet and the earth when they approach nearest) has quite recently been ascertained by a concerted system of observation, made during the past year, in which the astronomers in all the principal observatories of the globe have borne a part, and of which the final result has only within these few weeks become known. From these observations, so far as they have as yet been communicated and reduced,† it has been concluded that the interval in question is 6071 diameters of the earth, and as we know to a great nicety, by actual measurement of the earth's circumference, that its diameter is 7912½ miles, we are enabled at once to reduce the distance so obtained into miles (which gives 48,036,200 miles), and thence, as above indicated, to derive the earth's distance from the sun, which comes out 91,718,000, or about 92 millions of miles; and in the same way we may obtain the numerical dimensions in miles of the orbits of all the other planets, as also the sun's actual diameter, which appears to be 852,600 miles.

(9.) Such of our readers as may take the trouble to compare the distances and dimensions here set down with

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* We consider in this and what follows, the orbits as circles, which is quite sufficient for purposes of illustration.

† Some time will probably elapse before our whole series can be collected and finally reduced.