

from our side. (I say nothing at present of decimalization).

(29.) Let us see then how this part of the matter stands. Taking the polar axis of the earth as the best unit of dimension which the terrestrial spheroid affords (a better *à priori* unit\* than that of the metrical system) we have seen that it consists of 41,708,088 imperial feet—which, reduced to inches, is 500,497,056 imperial inches. Now this differs only by 2944 inches, or by 82 yards from 500,500,000 (five hundred million and five hundred thousand) such inches—and this would be the whole error on a length of 8000 miles which would arise from the adoption of this precise round number of inches for its length, or from making the inch, so defined, our fundamental unit of length. Suppose, then, that any length were proposed in English measure, and we desire to know what decimal fraction such length were of the earth's axis. We have only to express it in inches and decimals, and from the number so stated take off its thousandth part (a calculation involving only the writing down the number twice over, removing the figures of the

\* A writer in *Quesneville's Moniteur Scientifique*, No. 163, v. 736, argues that *itinerary* measures ought to be based on the *circumference* of the globe and not on its *axis*—by reason that the decimal principle of sub-division, if carried out, would apply to the decimal graduation of the quadrant—*adding* that “the greatest advantage of the French system is in reality its decimal division”—but *forgetting* to add that the decimal division of the quadrant *was* introduced in France, but *was abandoned by common consent even in France*, and can never be reintroduced. In the “*Mondes*” (Suppl. 38, p. 616) the same argument is advanced, and the same answer applies.