Vous avez arpenté quelque faible partie
Des flancs, toujours glacés, de la terre aplatie."

[You have confirmed, in deserts full of dreariness, the truths which Newton knew without issuing from his seclusion; you have surveyed (*arpenté*) some trifling portion of the flanks, covered with eternal ice, of the flattened earth.]

But here Voltaire was unjust. Not only had the new measurements, though disfigured with a few errors, confirmed the calculations of Newton—which, indeed, was something—but they had furnished the means of rectifying them. In fact, the result of the geodesical operations of La Condamine, Maupertuis, and Bouguer, was to prove that the Earth is somewhat flatter at the poles than our English philosopher had supposed in his calculations.

Cassini, as we have said, was distinguished as one of Newton's most vehement critics. The French, however, felt no little difficulty in supporting his attack upon the illustrious man who held the sceptre of astronomy, and they gaily sought a recompense for their unwelcome task in the humiliation of his fortunate rival, Maupertuis, on whom they conferred the sobriquet of "the great flattener!"

Since that epoch, triangulations and measurements of the arcs of meridians have been multiplied *ad infinitum*. Lacaille has made them at the Cape of Good Hope, Boscovich between Rome and Rimini. Mason and Dixon have measured degrees in Pennsylvania; Roy and Mudge, in England; Hamilton and Everest, in Hindustan; Gauss, in Hanover; Bessel, in Prussia; and Struve, in Russia.

[This magnificent aggregate of labours undertaken during the eighteenth and nineteenth centuries has established with exactness the dimensions of the Earth, and its true general figure. It is now certain that the Earth is not accurately represented by an orange, unless, indeed, the orange be slightly squeezed, for the equatorial circumference is not a perfect circle, *but an ellipse*, whose major and minor equatorial diameters are respectively 41,852,864 and 41,843,896 feet. In other words, the equatorial diameter which pierces the Earth from longitude 14° 23′ E. to 194° 23′ E. of Greenwich, is two inches longer than that at right angles to it.

The length of the successive degrees of the meridian increases continuously from the equator to the pole.

The following table* shows the differences of length of the arcs of a degree,

* Guillemin, "The Heavens," p. 98.

http://www.geology.19thcenturyscience.org/books/1870-Figuier-Adams-EarthSea/README.htm