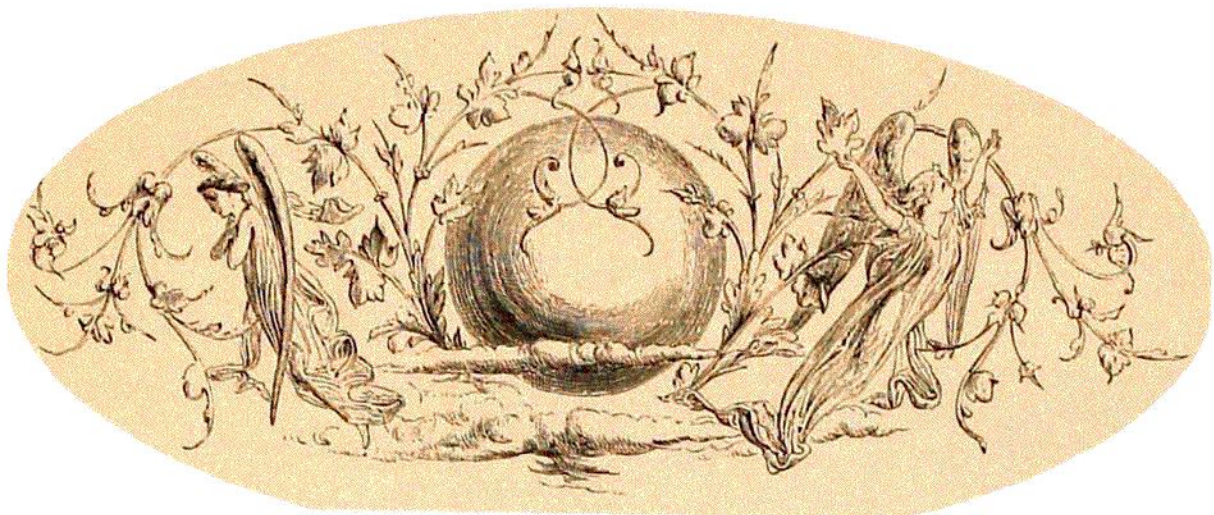




BOOK II.

FORM AND DIMENSIONS OF THE TERRESTRIAL GLOBE.

CHAPTER I.

FORM OF THE EARTH—PROOFS OF ITS CONVEXITY—ACCOUNT OF VARIOUS ATTEMPTS TO ASCERTAIN THE EARTH'S DIMENSIONS—ARISTOTLE—POSIDONIUS—ERATOSTHENES—PTOLEMÆUS—THE CALIPH AL-MAMOUN—THE PHYSICIAN FERNEL, IN THE SIXTEENTH CENTURY, MEASURES A DEGREE OF LONGITUDE—SNELLIUS—LONGITUDE AND LATITUDE—METHOD OF TRIANGULATION—THE ACADEMY OF SCIENCES OF PARIS—LABOURS OF NEWTON IN REFERENCE TO THE FLATTENING OF THE POLES—SCIENTIFIC COMMISSIONS DESPATCHED, IN 1736, BY THE ACADEMY OF SCIENCES, TO THE POLE AND THE EQUATOR—MODERN MEASUREMENTS—DE-LAMBRE AND MECHAIN—BIOT AND ARAGO—METRICAL SYSTEM—TRUE DIMENSIONS OF THE TERRESTRIAL SPHEROID—DETERMINATION OF THE LONGITUDE BY ASTRONOMICAL OBSERVATIONS—GLOBES AND MAPS.

TO a spectator whose standing-point should be the Sun, or some other fixed star, the Earth would appear like a glittering point in the heavens, a sphere among the spheres.

To a lunarian, or inhabitant of the Moon,* the Earth would shine as a luminous disc, fourteen times greater than the lunar disc as seen by us, and always occupying the same position in the sky, while the Sun and the whole procession of the stars would defile before it. The inhabitant of the moon would see the Earth suspended to the firma-

* ["That the moon is inhabited has been always a favourite fiction; according to Athenæus, Neochs of Crotona maintained that the women in the moon lay eggs, and that the men children hatched from them grow to fifteen times our stature."—*Athenæus Deipn.*, lib. ii., p. 57.]