latitude will be the same, except that while one is northern, the other will be southern, and *vice versâ*. Thus: London is in lat. 51° 30′ *N.*, and long. 0° 5′ W. Its antipodes, therefore, must be in lat. 51° 30′ *S.*, and long. 180° 5′ W., or rather 179° 55′ E.; coinciding pretty closely with a small island to the south-east of New Zealand, and known as *Antipodes Island*. The antipodes of Paris will be in about lat. 49° S., and long. 177° 40′ E. That of Edinburgh lies in lat. 55° 57′ S., and long. 183° 11′ W. (= 176° 49′ E.)

We shall close this section with a few words on Globes and Maps.

The most natural method of representing the surface of our earth is by constructing an artificial globe, on which we indicate the relative positions of places by means of their latitudes and longitudes.

[These globes are usually hollow spheres of cardboard, india-rubber, or gutta percha, coated with a composition of whiting, glue, and oil, on which paper, properly delineated, is laid, coloured, and varnished. In order to adapt the plane surface of the plane to the curvature of the sphere, it is printed in pieces; small circles for the Arctic and Antarctic regions, and the rest in lens-shaped gores, which vary from 20° to 30° of longitude. Great care is requisite to prevent these from overlapping, and yet to bring their edges accurately together.

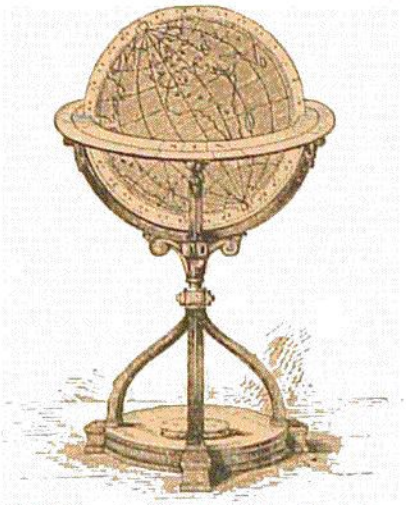

FIG. 34.—A TERRESTRIAL GLOBE.

In maps, a larger or smaller portion of the Earth (or heavens) is delineated on a plane surface, according to a certain definite scale, and with as much accuracy as the mode of delineation renders possible. But as the Earth is spherical, no considerable area of it can be represented on a plane without distortion. To remedy this grave defect, geographers employ certain methods of representation called *projections*, which are of five kinds: the orthographic, the stereographic, the globular, the conical, and Mercator's, or the cylindrical. In the *first* of these, the eye is supposed to be at an infinite distance from the Earth's centre, so that all rays of light proceeding from every point in its surface are parallel and perpendicular. The effect of this