

point. But, since the earth itself is considered as but a point in comparison with the celestial sphere, the rational and sensible horizons are considered as one and the same circle on this sphere.

The *celestial poles* are the extremities of the *axis of the celestial sphere*  $Pp$ , the *north pole* being that one which is above the horizon in the latitude of New York, in the northern hemisphere.

The circles apparently described by the stars in their diurnal orbits are called *parallels of declination*,  $KN$ ;



FIG. 2.—CIRCLES OF THE SPHERE.

that one whose plane passes through the centre of the sphere being the *celestial equator*, or the *equinoctial*,  $CWD$ .

The *celestial equator* is then that parallel of declination which is a great circle of the celestial sphere.

The figure illustrates the phenomena which appear in the heavens to an observer upon the earth. The stars which lie in the equator have their diurnal paths bisected by the horizon, and are as long above the horizon as below