cisely as latitude on the earth is distance from the earth's equator.

Let L be a place on the earth, $P\,E\,p\,Q$, $P\,p$ being the earth's axis, and $E\,Q$ its equator. Z is the zenith and $H\,R$ the horizon of L. $L\,O\,Q$ is the *latitude* of L according to ordinary geographical definitions: *i.e.*, it is its angular distance from the equator.

FIG. 8.

Prolong $O\,P$ indefinitely to P', and draw $L\,P'$ parallel to it. To an observer at L the elevated pole of the heavens will be seen along the line $L\,P'$, because at an infinite distance the distance $P'\,P''$ will appear like a point. $H\,L\,Z = P\,O\,Q$ and $Z\,L\,P' = Z\,O\,P'$, hence $P''\,L\,H = L\,O\,Q$—that is, *the elevation of the pole above the celestial horizon is equal to the latitude of the place.* Referring to Fig. 9, it can at once be seen that *the latitude of a place on the earth's surface is equal to the declination of the zenith of that place*, since the declination of the zenith is equal to the altitude of the elevated pole.

We have next to consider the correspondence between the celestial and terrestrial meridians. A terrestrial meridian is an imaginary line drawn along the earth's surface in a north and south direction from one pole to the other. These meridians diverge from one pole in every direction, and meet at the other pole. Sometimes they are called by the names of places they pass through, as the meridian of Greenwich, or the meridian of Washington. Each meridian may be considered as the intersection with the earth's surface of a plane passing through the axis of the earth, and therefore through both poles. Such a plane will cut the earth into two equal hemispheres, and will of course be vertical with the earth's surface along every part of its line of intersection. This plane is called the plane of the meridian; and by continuing it out to the celestial sphere, we should have a celestial meridian corresponding to each terrestrial one, precisely as we have