cannot in any way account for its apparent movement. Besides, if, instead of walking from north to south, the observer travels from east to west, the Pole-star will always appear at the same point of the heavens as referred to the movable horizon, and at the same height above this horizon. But, in this case, it will be the hour of the rising and setting of the stars that will vary ; as should happen if the curvature of the terrestrial surface is in every direction ; and if, as indeed is known, our globe every day performs an entire rotation round one of its diameters.

"We may announce, then, as a fact, demonstrated by experience and observation, that the Earth, in spite of the irregularities of its surface, which seem to us so considerable, is a spheroid, and, seen in space, appears as well-defined, regular, and smooth, as the discs of the other planets."]

That mysterious boundary where heaven and sea, to a spectator on the shore, seem to blend in a line of dim, dull gray, is called



FIG. 26.—ILLUSTRATION OF THE EARTH'S SPHERICAL FORM.

the apparent horizon. And the higher his point of view, the remoter it seems to be, for this boundary occurs at the distance where



FIG. 27. - ILLUSTRATION OF THE EARTH'S CONVENITY.

the visual ray proceeding from the eye of the observer is tangent to the terrestrial sphere. For example: the greater the elevation of \* a lighthouse, the greater the distance at which its rays will be visible. If 300 feet in height, it will dominate over an extent of sea measuring upwards of twenty miles.

An eclipse of the Moon occurs in the firmament at a fixed moment; but if we observe it about half-past nine in the evening at London, it will be nearly eleven before the same eclipse shall be visible at