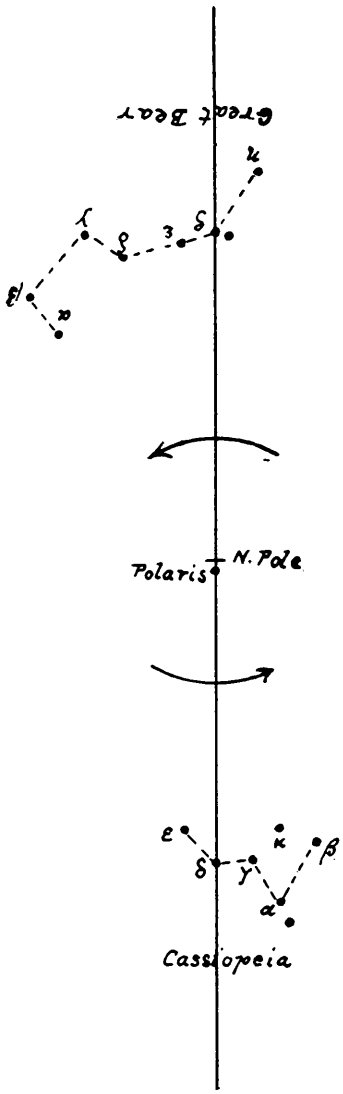

now in very favorable positions. Zeta (ζ) Ursae Majoris, or Mizar, as it was called by the ancient Arabians, is the middle one of the three stars in the tail of the Great Bear, the small star near it is Alcor. Delta (δ) Cassiopeiae is at the bottom of the less perfectly formed V of the letter *W*, as frequently imagined to unite roughly the five brightest stars of this constellation.

The diagram (Fig. 8), drawn to scale, exhibits the principal stars of the constellations Cassiopeiae and Great Bear, with Delta (δ) Cassiopeiae, Zeta (ζ) of the Great Bear, and *Polaris* on the meridian, represented by the straight line; Polaris being at *lower* culmination.

In employing this method the following instructions may be followed:

1. Select that one of the two stars, Delta or Zeta, which at the time of the year when the observation is made passes the meridian *below* Polaris. When the star passes the meridian above the pole it is too near the zenith to be of service. Delta (δ) Cassiopeiae is on the meridian below Polaris and the pole at midnight about April 10, and is, therefore, the proper star to use at that date and for

FIG. 8.—The diagram held perpendicular to the line of sight directed to the pole, with the right-hand side of the page uppermost, will represent the configuration of the constellations with Polaris near *eastern* elongation at midnight about July 11; *inverted*, it will show Zeta (ζ) of the Great Bear and Polaris on the meridian (the former *below* and the latter *above* the pole) at midnight about October 10; and held with left-hand side uppermost, the diagram will indicate the relative situations for midnight about January 8, with Polaris near *western* elongation. The arrows indicate the direction of apparent motion.