

could be taken out, when a change of plate was required. The pin passing through the disc was also the axis on which the radial index bearing the sights revolved on the flat or unexcavated side of the instrument. This radial index is called by Chaucer the Rule; 'it hath' he says 'on everich end,' i. e. each end, a square plate parted i. e. pierced through, with certain holes, some more and some lesse, to receyven the streems of the Sunne by day, and eke by mediation of thine eye, to know the altitude of the sterres by night.' Another name for the rule used by Chaucer is the alidatha, its appellation among the Arabs; and one may observe in passing, that probably from alidatha has been derived, by a succession of changes, the word *theodolite*. So the late Prof. de Morgan, of University College, London, held, who always spelt the word *theodolite*, though his practice has not been generally adopted. There are other Arabic terms in use in connection with the astrolabe; as for example, *almicanteras*, *azimuths*, *almurie*, to say nothing of the names applied to many of the stars themselves, as *alnasir*, *markab*, *algomisi*, *alhabor*,—curious reminiscences continuing to this day, of the source whence streamed the few rays of science which cheered our European forefathers during the Dark Ages. 'Astrolabe' itself is said to have passed into the European tongues through *uster-lab*, the Arabic corruption of the Greek word to which we have now more nearly reverted.

The side of the disc on which the alidatha or rule revolves is divided into a succession of concentric circles. The outermost is graduated in the usual way by quarter circles. The next is divided into twelve equal parts, each showing the name of one of the signs. The third has the names of the months arranged with relation to the signs, and giving the number of days in each month. The next has the holidays in each month marked; and the last has the letters A B C, &c., made to correspond with the names of the holidays. In the space near the centre are two scales or ladders, placed at right angles to each other, each with eleven rungs, for taking the heights of objects by means of their shadow; one scale is for taking the height by the *umbra versa*; the other by the *umbra recta* or *extensa*: these scales, the reader is told, serve for 'ful many a subtill conclusion.'

In addition to the rule, a long, thin needle or revolving index on the womb-side is spoken of, reaching to the outermost graduated circle. This is the label. Also, there is an *almurie*, a point or tooth pro-