

AMONG THE CONSTELLATIONS.

No. XII. Leo and its Neighbors.

The hosts of stars, that in the spangled skies

Take their bright stations and to mortals bring

Winter and summer; radiant rulers, when

They set; or rising, glitter through the night.

ÆSCHYLUS.—Agam. I.

In the early evenings of April Leo will be in the south, and our map will represent a broad strip of the sky, from 15° above the horizon, from which Hydra rises, to the paws of Ursa Major, in the zenith. Our readers will remember that the projection of our map widens the distance comparatively between the stars, in its upper part They will also notice that we mark all the stars of the first five magnitudes—the first magnitude, eight-rayed; second magnitude, eix-rayed; third magnitude, four-rayed; fourth magnitude, the larger round points; fifth magnitude, the smaller points. This leaves only the sixth magnitude stars, the smallest generally visible, unmapped. In moonlight, the sixth magnitude, and, near the moon, even fifth magnitude stars, become invisible.

The Sun's Track.

The equinoctial line is always that marked 0° on the sides of the map. The ecliptic passes diagonally from Gemini through Cancer, just below Regulus (the first magnitude star in Leo-Alpha), and cuts the line 12h. right ascension, and the equinoctial in the same point in Virgo. The ecliptic is the sun's annual track. The sun is on the boundary of Gemini and Cancer about the 20th of July. On the 21st of August it is exactly about half a degree below Regulus—only its own breadth. And on the 22nd of September it is at the autumnal equinox, where 12h. right ascension cuts the equinoctial.

Leo

The Sickle stands vertically on its handle, facing Cancer. Alpha (Regulus), of the first magnitude, forms the end of the handle; Eta, of the second magnitude, directly above it, marks where the handle joins the curved blade, which is outlined in order by Gamma, of the second magnitude, Zeta, of the third, Mu, of the fourth, at the highest part of the curve, and Epsilon, of the third magnitude, at the point. The sun, curiously enough, comes directly to the end of the handle on the 21st of August. It is reaping time with us in the northern hemisphere when the sun takes the Sickle in Leo by the handle.

The trapezium is a configuration of four stars in the eastern half of Leo. The lower one, of the second magnitude, is Beta (also called Denebola), near the lion's tail; the fourth magnitude, above it, is "93 Leonis"; the second magnitude star, in the upper angle, next the sickle, is Delta; and the third magnitude, below it, Theta. There are two nebulæ in a southeast line from and close to this star. The sickle is in the lion's breast, the curved blade rising into the head.

Cancer.

The bow in Cancer is outlined by its four largest stars, all only of the fourth magnitude. It is concave towards Leo. Their names, beginning with the upper, are, Iota, Gamma, Delta, and Alpha. Gamma and Delta are near each other, and nearly midway between them, in the centre of the bow, is a remarkable cluster of small stars, visible to the naked eye as a large nebula.

This is "Praesepe," or the beehive, in Cancer. It has often been taken for a nebulous comet, by persons not accustomed to observe the skies. An ordinary field glass or telescope will show it to be a cluster of stars. Galileo, after his invention of the telescope, counted thirty-six stars in it. At the Washington observatory over one hundred and fifty stars, between the sixth and eleventh, have not only been seen, but have had their positions measured and catalogued, in this faint patch of light to the naked eye.

Leo Minor and its Neighbors.

This constellation, just above Leo Major, is outlined by its three fourth magnitude stars, which, reading from left to right, are, 46 Beta, and 21 of Leo Minor. Right above this arch is the