AMONG THE CONSTELLATIONS.

No. IX - The Northern Bears and their Neighbors.



"Thus some who have the stars surveyed Are ignorantly led To think those glorious lamps were made To light Tom Fool to bed " Rove-A Song.

THE NEIGHBORS

Midway between the lesser and greater Bears winds, marked by a sinuous line of faint stars, the constellation Draco-the Dragon. It half encompasses Ursa Minor. We do not mark these stars in our present map, as we have not yet finished the interesting points in our two constellations of the Bears. Under Ursa Major's tail, nearly intermediate between the terminal star in the tail and the couple of stars in the lower paw, is the small inconspicuously starred constellations Canes venatici-the hunting dogs or greyhounds. It contains one star of the third magnitude, called Cor Caroli, not far from which is a star of the fourth magnitude. Cor Caroli can be easily found from this direction, as there is no other brilliant star in its neighborhood. It is interesting; first, because it is a double star, its companion of the sixth magnitude being only twenty seconds of arc from it-so close as to require a telescope to separate them. Secondly, a small circle, including Cor Caroli and its neighboring star of the fourth dimension, will include two and nearly pass through a third telescopic nebular star cluster.

Below the Greyhounds, and following the heel of Ursa Major, is a closely-packed constellation of about seventy stars of the fourth, fifth and sixth magnitudes

called *Coma Berenices*—Berenice's Hair, or the Lady's Tresses.

Right below the two hind paws of Ursa Major is Leo Minor, the Lesser Lion; and below that, Leo Major—Leo of the Zodiac—a greater constellation, with the sickle-like configuration of stars in its breast and head.

In front of the Greater Bear is the inconspicuously starred constellation Lynx.

Cassiopeia, with its "W" outline of bright stars, and Camelopardus, with its absence of conspicuous stars, bind Ursa Minor on the upper side of the North Pole Star.

URSA MINOR.

Let us take the principal stars of this constellation in the order of our map:

Alpha (Polaris, or the North Pole Star) is of the second magnitude. It is at least so distant that light travelling from it to the earth at the rate of over 180,000 miles per second, would take forty-eight years to accomplish the distance. This is deduced from a parallax of 0.067", measured by M. Peters. It is also a double star, the telescope separating from it a tenth magnitude star, distant 19".

Delta is the second star and is of the fourth magnitude.

Epsilon is the third star and is of the fourth magnitude.

Zeta is the fourth star, of the fourth magnitude, and forms one corner of the rectangle.

Eta, at the other upper corner of the rectangle, is still fainter.

Gamma, at the outer lower corner of the rectangle, is of the third magnitude.

Beta, or Kocale, or Kochab, is at the fourth corner, is as bright as the Pole Star (of the second magnitude). It is a variable star of long period. It varies in brightness. Gamma and Beta Ursæ Minoris are often alluded to as the guards of the pole.

The small star about a degree from Kocale is a double star, which can be easily resolved with an opera glass.

URSA MAJOR.

Eta, or Alkaid, is the first star in the extremity of the tail of the Bear, or in the end of the handle of the Dipper.

Zeta, or Mizar, is the second. The three stars in the handle of the Dipper are of the second magnitude. But near Zeta is a faint star called Alcor, which can be seen separately by a good eye without a glass; hence it is called a "naked eye double." The distance appears large under an opera glass. It is $11^{\prime\prime}$

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