

Photographic Nebulosities and Groups of Nebulous Stars.

By *E. E. Barnard.*

The Willard lens having been carefully refigured and mounted by Brashear, I have begun a series of photographs of the Milky Way — a continuation of the work of August 1889.

These photographs, besides showing the marvelous cloud structures of the Milky Way, show quite a number of interesting features — such as nebulae and nebulous stars.

On a plate June 29, 1892, exposed from 11^h 40^m to 15^h 5^m the 5^m star BD. — 10° 47' 13" is shown to be nebulous. The star is surrounded by a large diffused nebulosity, somewhat extended in a direction n f and s p. The position for 1860.0 is

$$18^h 23^m 42^s \quad -10^\circ 53'.$$

A telescopic examination with a very low power confirms the photograph.

I have already called attention (A. N. 3101) to the fact that BD. — 19° 49' 53" of the 7.6 mag. is nebulous. South preceding this star is BD. — 19° 49' 48" of the 9.3 mag. This object is also nebulous. Its place for 1860.0 is

$$18^h 8^m 59^s \quad -19^\circ 47'.$$

The nebulosity is very small, and principally noticeable on the southern side of the star.

This is a very singular region. It is a group of nebulous stars consisting of the following:

- BD. — 19° 49' 40" = NGC. 6589 (pos. erroneous in NGC.)*)
- .4946 = NGC. 6590 = 6595*)
- .4948 Nova
- .4953 Nova

This singular and isolated group of nebulous stars has a remarkable counterpart in a similar group shown on a plate exposed June 25, 1892, for 4^h 15^m.

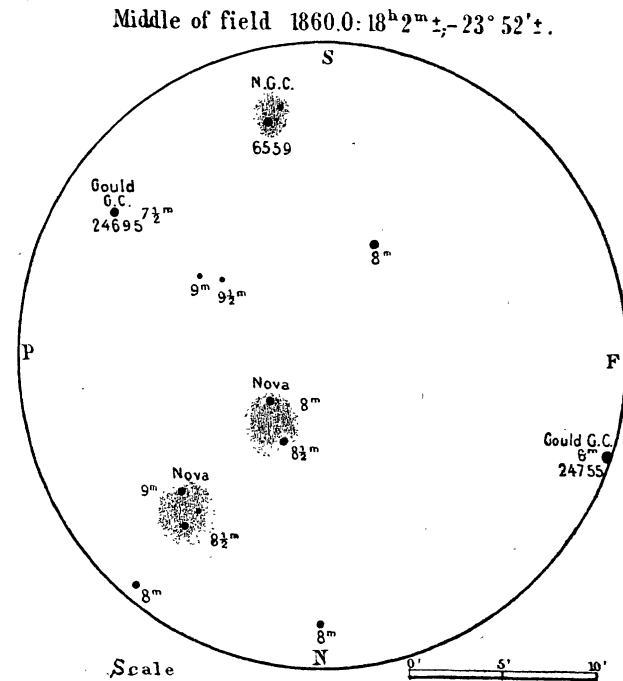
A rough sketch of this field with a low power on the 12-inch is enclosed, showing the nebulosities.

The center of the field for 1860.0 is

$$18^h 2^m \pm \quad -23^\circ 52' \pm.$$

Mt. Hamilton 1892 July 8.

*) Vgl. die Mittheilung von Barnard in A. N. 3101. *Ktz.*



The stars shown in the sketch are only a few of a scattering group of pretty bright stars, others of which are apparently nebulous on the photographs, but I have only indicated those where the nebulosity is unmistakable. The group lies about 1 1/2° following M 8 and a little north.

The singular mixture of stars and nebulosity M 8, is shown on several of the photographs and is a very remarkable object. East and west its diameter is about 45', and north and south some 42'. The southern side is sharply defined and serrated with three distinct pointed projections. From its north following corner a wisp of nebulosity extends nearly to the group of nebulous stars just mentioned, and possibly with a larger exposure, would be found to connect with them.

E. E. Barnard.

Observations photométriques de l'étoile nouvelle du Cocher.

Par *W. Ceraski.*

§ 1.

Ces observations ont été faites au photomètre de Zöllner, adapté à une lunette de 88 mm et le 30 Mars au réfracteur de 10 pouces.

L'étoile nouvelle a été comparée avec l'étoile artificielle droite du photomètre, et toujours sans exception je changeais la position relative de ces deux étoiles, c'est à dire j'effectuais deux lectures quand l'étoile nouvelle était à gauche et autant quand elle était à droite de l'étoile du photomètre.

Voici les positions et les magnitudes des étoiles de comparaison d'après BD.:

Etoile	α 1855.0	δ 1855.0	mg.
χ Aurigae	5 ^h 23 ^m 18 ^s .4	+32° 4'8"	4.8
26 »	29 19.6	30 23.9	6.0
A	20 52.4	29 25.6	7.5
B	5 20 48.6	+30 19.8	8.7

Le tableau suivant renferme la date et le temps moyen de Moscou, les logarithmes de l'intensité de l'étoile nouvelle,