

ditions, numerous slow scans and fixed settings were made across and within active regions containing three spots of medium size and numerous smaller spots. Settings included umbrae, penumbrae, and faculae. No indications of polarization were found, and it was conservatively estimated that an upper limit of 1% could be placed on circular polarization in the areas scanned.

Tests for plane polarization were then made after placing a quarter-wave plate in front of the oscillating circular analyzer. Plane polarization was tested in only one azimuth, that in which the instrumental polarization introduced by the telescope mirrors could readily be compensated. Several slow scans and settings on spots and active regions revealed no detectable plane polarization in the continuous spectrum.

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REMARKS ON SOME NEW AND SOME KNOWN GALACTIC CLUSTERS

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This report is a by-product of a survey of stars of high luminosity in the northern Milky Way, undertaken jointly by the Hamburg and the Warner and Swasey Observatories.¹ The classification of the stars was carried out by Stock, Nassau, and Stephenson, using objective-prism plates taken at Hamburg that show the ultraviolet spectral region.² The area studied covers 600 square degrees in Sagitta, Vulpecula, and Cygnus to a limiting photographic magnitude of about 12.5.

The detection of new clusters was effected from the areal density of stars, their spectral classes, and their estimated mag-

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nitudes. Objects fitting an absolute magnitude–spectral class sequence reasonably well were included. Table I gives the coordinates (1855) of the center of each cluster provisionally accepted,

TABLE I

NEW CLUSTERS

- No. 1. $\alpha = 19^{\text{h}} 38^{\text{m}} 6$, $\delta = +17^{\circ} 11'$. Diameter 18'.
The stars form a main sequence beginning with B9 V stars of the 10th magnitude and reaching spectral type A7 at the plate limit.
- No. 2. $\alpha = 19^{\text{h}} 39^{\text{m}} 3$, $\delta = +23^{\circ} 35'$. Diameter 45'.
The brightest star (HD 186745–6, 7th magnitude) is of type B8 Ia, followed by fainter stars of type OB⁺ and OB down to OB⁻ at the limit of the plate.
- No. 3. $\alpha = 19^{\text{h}} 52^{\text{m}} 3$, $\delta = +20^{\circ} 06'$. Diameter 10'.
The brightest star (10th magnitude) is of type B7 II–III, followed by middle and late B main sequence stars.
- No. 4. $\alpha = 19^{\text{h}} 58^{\text{m}} 9$, $\delta = +28^{\circ} 48'$. Diameter 12'.
A cluster of OB stars of the 11–12th magnitude. Possibly connected with the two nebulae IC 4954–55.
- No. 5. $\alpha = 20^{\text{h}} 04^{\text{m}} 5$, $\delta = +33^{\circ} 20'$. Diameter 40'.
The brightest stars (8th magnitude) are of type B9 V, followed by early A main sequence stars.
- No. 6. $\alpha = 20^{\text{h}} 23^{\text{m}} 6$, $\delta = +38^{\circ} 50'$. Diameter 30'.
The stars form a main sequence beginning with stars of type A0 V of the 8th magnitude and reaching type F0 at the plate limit. A K giant of the 7th magnitude, HD 195194, may be a member of the cluster.
- No. 7. $\alpha = 20^{\text{h}} 46^{\text{m}} 9$, $\delta = +37^{\circ} 19'$. Diameter 35'.
A somewhat doubtful cluster. The brightest stars (9th magnitude) are two stars of type B9 II–III and one K giant. A few fainter late B and early A stars of class III are present.

the angular diameter, and the spectral classes of the brightest stars.

Table II lists eight known clusters in the field of the survey, together with new data secured from the objective-prism spectra.

NGC 6738 is within the region examined; the stars down to 12th magnitude are dwarfs, but they do not appear to define a main sequence.

TABLE II

KNOWN CLUSTERS

- NGC 6793. The brightest star is an A0 V star of the 9th magnitude, and there are about 15 stars on the main sequence down to type A8.
- Coll. 399. The brightest star in the field is 5 Vulpeculae, a dwarf of type B9. Next in brightness are three stars of types B9 III, G8 III, and A0 IV, followed by main sequence stars from A2 to F7.
- NGC 6800. The brightest stars (10th magnitude) are of type A0 IV, followed by fainter A stars on the main sequence.
- NGC 6819. Faint cluster of late type stars.
- NGC 6830. The brightest star is of type A1 II, followed by a B8 II-III star and middle and late B stars on the main sequence.
- NGC 6834. The two brightest stars are of types F0 I and A0 Iab, followed by faint OB stars.
- Coll. 408. The stars are dwarfs of type B9-A2 of 11-12th magnitude plus one F4 II star of the 10th magnitude. Two brighter stars (9th magnitude) of types B9 V and G0 are also in the field.
- NGC 6883. The two brightest stars are of type B and show continuous emission in the ultraviolet. Other stars are two OB and three OB⁻ stars, one of type B9 II and several early main sequence A stars.

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² To be published, 1960.