

*The Cluster No. 361, Dreyer's Index Catalogue (1895).*

GENTLEMEN,—

An object (No. 24) is given in Mr. Melotte's catalogue of star-clusters from the Franklin-Adams chart-plates (*Mem. R.A.S.* vol. lx. pt. 5) at R.A.  $4^{\text{h}} 10^{\text{m}}.7 + 58^{\circ} 3'$  which is described as "a cluster of very faint stars—possibly a globular cluster, but it is so faint that it is impossible to tell."

I discovered this object on 1893 Feb. 11, and my notes of its appearance in a 10-inch are as follows:—

1893 Feb. 11.—A loose, very faint cluster not in Herschel-Dreyer's N.G.C. (1888).

Feb. 12.—The cluster seems nebulous, and the intermingled stars are of about 13–14 mag.

Feb. 14.—Cluster large and faint. It is really a nebula with minute stars strewn about it. With power 252 the nebulous matter vanishes, but power 40 shows it very conspicuously.

The object is a little E. of a line joining  $\Sigma 511$  and Lalande 4886. Lalande 4886 and 7721–2 point to it.

This nebulous group is larger and fainter than the cluster (Barnard) N.G.C. 1798 R.A.  $5^{\text{h}} 1^{\text{m}} 7^{\text{s}}$ , Dec.  $47^{\circ} 28'.8$  (1860) which I have occasionally picked up while comet-seeking and noted it as "a cluster of small stars involved in nebulosity." H.D. 1220 R.A.  $3^{\text{h}} 1^{\text{m}} 29^{\text{s}}$ , Dec.  $52^{\circ} 48'.1$  (1860) is another small cluster, the character of which is clearly visible in a 10-inch, though Sir J. Herschel, who discovered it, describes it as "very small, stars very faint."

Variations amongst nebulae and very faint clusters are often suggested by alterations in their aspect as observed at different times, but apparent changes are frequently induced by atmospheric conditions which are not always appreciable though they may be very dissimilar.

For example, on 1889 April 28, my description of N.G.C. 1961 was "very bright," yet the catalogue notes are "considerably faint, pretty large." On 1894 April 2 I found N.G.C. 2344 "very faint" though the catalogue reference is "pretty bright." In some cases the N.G.C. descriptions are not quite correct, for it must be remembered that they depend upon many different observers who may not have employed precisely the same scale of brightness in their estimates, but there is no doubt that meteorological influences (not always perceptible) are a fruitful source of discordance.

I am, Gentlemen,

Yours faithfully,

W. F. DENNING.

Bristol, Feb. 12, 1918.