NEW NEBULÆ.

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NEW NEBULÆ.

In the course of my double star work a faint nebula is occasionally found, usually in the field with some bright star under examination. These are almost invariably new, or wanting in DREYER'S General Catalogue, and when near enough to a prominent star to be measured directly with the micrometer, I have saved them as far as it could be done without interfering with the regular work. With the high powers and small fields of the eye-pieces used in observing double stars, a nebula would rarely be seen except when near a star. The lowest power used has a field of only 5′, much too small for very faint, diffused objects. The following nebulæ have been measured with the 36-inch. The places given are those of the stars (1880) from which the nebulæ are measured, the star in each instance being the primary. A few other nebulæ have been found during the examination of special objects from DREYER'S General Catalogue. These are included in "Observations of nebulæ with the 36-inch refractor."

ρ Piscium and nebula.

R. A. $1^h\ 19^m\ 47^s$
Decl. $+\ 18^\circ\ 33'$

1890.564	62.°7	158.″12	...	36
.610	62.6	160.36	...	36
.633	...	159.38	...	36
1890.60	62.6	159.29	...	

94 Piscium and nebula.

R. A. $1^h\ 20^m\ 13^s$
Decl. $+\ 18^\circ\ 37'$

1890.564	117.°4	211.″63	...	36
.610	118.3	211.70	...	36
1890.59	117.8	211.66	...	

A little brighter than the preceding.

Star and nebula.

R. A. $2^h\ 53^m\ 48^s$
Decl. $+\ 37^\circ\ 17'\ 52''$

1890.698	114.°6	95.″33	9.5	...	36
.709	114.8	95.48	10.0	...	36
1890.70	114.7	95.40	9.7	...	

The comparison star is not in the D.M. The place given was determined by Mr. BARNARD with the micrometer from W_2 2^h 1203. There is a faint star about 12″ from the nebula in the direction of 248°.

Star and nebulæ.

R. A. $3^h\ 7^m\ 26^s$
Decl. $+\ 37^\circ\ 25'\ 18''$

South.

1890.698	221.°5	49.″16	..	36
.709	220.0	49.64	11.5 ..	36
1890.70	220.7	49.40	11.5 ..	

North.

1890.698	304.°2	76.″29	..	36
.709	303.6	76.06	..	36
1890.70	303.9	76.17	..	

Both nebulæ are measured from the same star. Its place, as given above, was obtained by Mr. BARNARD from BB. VI + 37°.753, which is $3^m\ 21^s.7$ f, and 4′ 24″.5 n.

D.M. (2°) 684 and nebula.

R. A. $4^h\ 12^m\ 48^s$
Decl. $+\ 2°\ 48'$

1890.709	224.°8	210.″39	9·5 · ·	36
.760	224.9	211.22	9·5 · ·	36
.785	224.4	209.73	· ·	36
1890.75	224.7	210.45	· ·	

Very faint.

Dreyer 1550 and nebula.

R. A. $4^h\ 13^m\ 23^s$
Decl. $+\ 2°\ 7'$

1890.760	163.°5	187.″88	· · ·	36
.785	162.9	189.43	· · ·	36
1890.77	163.2	188.66	· · ·	

This is in the field with one of D'ARREST's nebulæ, with which the new one is compared. That found by D'ARREST is at least six or eight times brighter than the other. There is a faint star, about 13^m, between the two.

L. 29710 and nebula.

R. A. $16^h\ 11^m\ 29^s$
Decl. $+\ 36°\ 52'$

1890.383	200.°3	105.″55	· · ·	36
.395	200.1	104.95	· · ·	36
.422	200.1	104.79	· · ·	36
1890.40	200.1	105.10	· · ·	

The star is seventh magnitude.

ω Piscium and nebula.

R. A. $23^h\ 53^m\ 9^s$
Decl. $+\ 6°\ 12'$

1889.630	278.°6	164.″51	· · ·	36
.633	278.0	164.09	· · ·	36
1889.63	278.3	164.30	· · ·	

L. 39690 and nebula.

R. A. $20^h\ 29^m\ 37^s$
Decl. $-\ 0°\ 25'$

1889.633	257.°1	84.″50	· · ·	36
.668	256.9	84.20	· · ·	36
1889.65	257.0	84.35	· · ·	

The last two are faint objects with the large telescope.