No.	1902	Wash. M. T.	p	Wash. M. T.	s	Seeing
41	Aug. 31	$7^h 38^m 22^s$	77°13	$7^h 38^m 30^s$	43″41	p–f
42	Sept. 1	7 41 0	104.19	7 41 0	35.12	p–f

Remarks. No. 8. Blurred, satellites faint. — Nos. 9, 36, 39, 41. Hazy. — No. 18. Very much blurred. — No. 22. Observer *Dinwiddie*. — No. 31. Hazy and unsteady. — No. 32. Unsteady. — No. 35. Hazy and blurred. — No. 42. Blurred and unsteady.

15 new variable stars in Harvard Maps, Nos. 15, 18 and 27.

(Harvard College Observatory Circular No. 133).

The systematic search for bright variable stars, by the method described in Circular 127, has already led to the announcement, in Circular 127, 129, and 130 (A. N. 175.91, 167, 333) of nearly 100 new variables, and has furnished much material for the discussion of the distribution of such objects. Three additional regions, each 30° square, have been examined this autumn, by Miss *Leavitt*, and a summary of the results is given in Table I, in the same form as Table I of Circular 130 (A. N. 175.333). The successive columns give the number of the plate, in the Map of Sky, the right ascension and declination of its centre, the number of new variables discovered, the total number found in the examination, including those previously known, the proportion of new variables, the whole number known to exist at the end of the examination, the probable total, the proportion of the probable total found, the probable number unknown, and the proportion probably unknown. A description of the method of obtaining these quantities in the different columns is given in Circulars 127 and 130 (A. N. 175.91, 333).

Table I. Number and distribution of the variables.

No.	Region	New Variables	Total Found	Proportion New	All	Probable Number	Proportion Found	Probabl. No. Unknown	Proportion Unknown
15	10^h +30°	5	9	0.56	10	11	0.82	1	0.09
18	16 +30	6	14	0.43	22	28	0.50	6	0.21
27	10 0	4	7	0.57	11	16	0.44	5	0.31

The following known variables were rediscovered during the examination: In Region 15, W Cancri, R Leonis Minoris, S Leonis Minoris, and V Leonis; in Region 18, S Coronae Borealis, R Coronae Borealis, X Coronae Borealis, R Serpentis, Z Coronae Borealis, RU Herculis, W Coronae Borealis, and *g* Herculis; in Region 27, R Sextantis, R Leonis, and 094501_n.

The discovery of variable 119.1907 Draconis (190965, H 2971), should be credited to Mrs. *Fleming*, as she had marked it on two spectrum plates previously to the publication of Circular 130. These plates are taken Nov. 23, 1905, and Aug. 15, 1906, and in each case the record was »Mc 5 d, var.?« Later, the variability was confirmed on chart plates by Miss *Wells*. In Table II, the designation is followed by the Harvard number, provisional designation in the A. N., number in the Bonn Durchmusterung, right ascension and declination for 1900, brightest and faintest magnitudes observed, and observed range. The variables 090007_n, 093126, and 094233 appear to be of the Algol type.

Table II. New Variables.

Designation	Harvard No.	Designation in A. N.	BD	RA. 1900	Decl. 1900	Bright.	Faint.	Range
090007_n	2973*	163.1907 Hydrae	− 7°2715	$9^h 0^m 48^s$	− 7° 51′5	9.0	11.5	2.5
091906_n	2974*	164.1907 Hydrae	—	9 19 53	− 6 21.8	10.0	<11.5	>1.5
093126	2982*	165.1907 Leonis	+26°1981	9 31 5	+26 41.4	9.0	10.6	1.6
094233	3007	166.1907 Leon. Minoris	—	9 42 33	+33 45.2	9.5	11.5	2.0
094627	3008	167.1907 Leonis	+27°1818	9 46 25	+27 22.3	9.8	10.4	0.6
094802	3009	168.1907 Sextantis	+ 2°2264	9 48 16	+ 2 31.6	8.9	9.6	0.7
100039	3010	169.1907 Leon. Minoris	—	10 0 7	+39 51.4	11.0	11.8	0.8
100224	3011	170.1907 Leonis	+24°2183	10 2 8	+24 28.9	9.0	9.8	0.8
100709_n	3012	171.1907 Sextantis †)	− 9°3017	10 7 24	− 9 49.5	9.1	9.8	0.7
152636	3013	172.1907 Bootis	—	15 26 47	+36 8.1	10.2	11.0	0.8
155436	3014	173.1907 Cor. Borealis	+36°2672	15 54 47	+36 17.9	9.6	10.6	1.0
160325	3015	174.1907 Herculis	+25°3031	16 3 14	+25 10.3	8.8	9.7	0.9
163238	3016	175.1907 Herculis	+38°2803	16 32 28	+38 10.1	8.4	9.7	1.3
164917	3017	176.1907 Herculis	+17°3117	16 49 54	+17 0.0	10.0	10.8	0.8
165722	3018	177.1907 Herculis	+22°3048	16 57 15	+22 36.7	10.0	<11.0	>1.0

Harvard College Observatory, Cambridge, Mass., 1907 Oct. 16. *Edward C. Pickering.*

* Ersatz für drei im Harv. Circ. 130 aufgenommene, aber schon bekannte Veränderliche, vergl. A. N. 175.337. *Kb.*

†) Im Zirkular steht irrtümlich Hydrae. *Kb.*