

NEW VARIABLE STARS (FOURTH LIST)

By D. O'Connell, S.J.

This list of new variable stars is a continuation of earlier lists published in the *Astronomische Nachrichten* (A.N. 6168, 6216, 6320). The variables were discovered by the writer on Riverview plates before the war. No. 6 was found when being used as a comparison star for SS Scuti, the rest were found with an O'Leary blink comparator. More than 500 plates (in some cases over 1,000 plates) were available for the study of each star.

Successive columns of the table contain the C.P.D. or B.D. number ; 1900 position ; Spectrum ; Type of variation ; Pg. magnitude range ; Period ; Epoch of maximum.

		R.A. (1900)			Dec.	Sp.	Type	Range		Per.	Epoch J.D.
	°	h	m	s	°			m	m	d	2420000 +
1. C.P.D.	—52 3245	10	03	51	—52 46	Ma	Long Period	8.7	—11.0	780	28780
2. „	—59 2775	10	46	30	—59 27	Ma	Semiregular	9.0	—10.0	400	28900
3.		11	51	43	—61 56		Long Period	11.0	—(13)	328	30504
4. „	—62 2670	12	12	21	—63 04	K5	Irregular	8.5	—10.0		
5.		12	25	39	—63 53		Nova 1935	10.7	—(15)		
6. B.D.	—7 4672	18	37	20	—7 48	Ao	Eclipsing	9.25	—9.47	1.361	

Notes

- Announced previously (=612.1936 Cru, A.N. 6216), but without period and epoch. Rise to maximum much steeper than fall.
- Some cycles of about 200 days observed.
- Announced previously as probably a long period variable (=615.1936 Cru, A.N. 6216). The star was thought at first to be a Nova. It was then wrongly identified with a faint star on Melbourne Astrographic Chart plates, and the conclusion was drawn that it was probably a long period variable. The star has not been seen again on several hundred later Riverview plates (1935–1947). Both Melbourne and Sydney Astrographic plates were examined recently by the writer and it was established that the star (between 13^m and 14^m), with which the variable had been identified, precedes the variable by 1^s.5. The variable is clearly a Nova. The following observations were obtained on Riverview plates :

J.D.	Pg. Mag.	J.D.	Pg. Mag.	J.D.	Pg. Mag.
2427000 +	m	2427000 +	m	2427000 +	m
878.218	(12.6	891.94	12.2	901.99	12.5
885.887	10.7	892.94	12.1	903.08	12.5
887.923	11.6	893.93	12.3	907.20	12.6
888.928	12.1	895.08	12.3	916.90	12.6
889.959	12.2	898.92	12.4	917.91	12.6
890.942	12.2	899.94	12.5	921.94	(12.6

- See p. 66 above. Min. I=J.D. hel. 2427335.483 + 1^d.361041 E. Min. II 9^m.42.

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