

## HARVARD COLLEGE OBSERVATORY.

CIRCULAR No. 91.

## SIXTEEN NEW VARIABLE STARS IN SAGITTARIUS.

THE Trifid Nebula is near the centre of a large number of the plates taken for the study of Phoebe, the Ninth Satellite of Saturn. A careful search for variable stars in this interesting region has been made by Miss Leavitt. Seventeen plates taken with the 24-inch Bruce Telescope, and having exposures of from one to three hours, have been examined. The extent of the region covered has been increased by the use of fourteen plates, taken with the 8-inch Bache Telescope, and having exposures of from forty-five to sixty minutes. There seems to be no evidence that variable stars are present in large numbers in this region.

In the table the successive columns give a current number, the right ascension for 1900, the declination for 1900, the brightest magnitude, the faintest magnitude, and the range of variation.

VARIABLE STARS IN SAGITTARIUS.

No.	R. A. 1900.	Dec. 1900.	Br.	Ft.	R.	No.	R. A. 1900.	Dec. 1900.	Br.	Ft.	R.
	<i>h. m. s.</i>	<i>° ' "</i>					<i>h. m. s.</i>	<i>° ' "</i>			
1	17 46 3	-22 35.3	12.0	14.7	2.7	9	18 2 1	-22 14.1	9.5	11.9	2.4
2	17 47 8	-21 44.6	12.2	14.7	2.5	10	18 2 20	-22 57.3	13.7	14.6	0.9
3	17 49 6	-21 43.5	12.6	13.9	1.3	11	18 2 24	-23 4.8	14.0	15.1	1.1
4	17 51 8	-19 19.5	10.5	<14.5	4.0	12	18 6 7	-20 43.4	10.9	12.8	1.9
5	17 54 22	-21 7.7	12.1	13.6	1.5	13	18 8 44	-29 44.2	10.6	12.1	1.5
6	17 57 16	-26 28.6	11.0	12.3	1.3	14	18 16 49	-27 28.4	11.5	<13.0	1.5
7	17 58 24	-22 57.5	13.4	14.5	1.1	15	18 17 26	-18 37.4	10.4	11.4	1.0
8	17 58 45	-22 44.1	10.9	12.0	1.1	16	18 17 46	-30 38.8	10.6	12.0	1.4

## REMARKS.

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| <p>5. Probably of the Algol type. Brightness uniform on twenty-two out of twenty-six plates examined.</p> <p>7. Probably of the Algol type. Brightness uniform on eighteen out of twenty plates examined.</p> <p>9. This is <math>-22^{\circ} 4575</math>, and the preceding of two stars.</p> | <p>11. The preceding of two stars. Probably of the Algol type. Brightness uniform on eighteen out of twenty plates examined.</p> <p>13. This is C. DM. <math>-29^{\circ} 14717</math>.</p> <p>16. This is C. DM. <math>-30^{\circ} 15642</math>.</p> |
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The total number of new variables discovered by Miss Leavitt and announced in Circulars Nos. 78, 79, 82, 86, 90, and 91, is 410.

EDWARD C. PICKERING.

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