

MINOR CONTRIBUTIONS AND NOTES.

A NEW SATELLITE OF SATURN.

A NEW satellite of the planet Saturn has been discovered by Professor William H. Pickering at the Harvard College Observatory. This satellite is three and a half times as distant from Saturn as Iapetus, the outermost satellite hitherto known. The period is about seventeen months, and the magnitude fifteen and a half. The satellite appears upon four plates taken at the Arequipa Station with the Bruce Photographic Telescope. The last discovery among the satellites of Saturn was made half a century ago, in September 1848, by Professor George P. Bond, at that time director of the Harvard College Observatory.

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NEW NEBULAE AND NEBULOUS STARS.¹

MUCH care and skill are required to obtain the best results with the Bruce photographic telescope. Dr. De Lisle Stewart, who has had charge of this instrument for the last year, has succeeded in obtaining nearly circular images even when the exposures extended over several hours. He has recently found an interesting group of nebulae, hitherto unknown, within the limits of right ascension, $3^{\text{h}} 10^{\text{m}}$ to $3^{\text{h}} 50^{\text{m}}$ (1900), and declination, $-49^{\circ} 50'$ to $-53^{\circ} 40'$ (1900). A comparison of two plates, A 3339, and A 3346, taken on October 14, and October 20, 1898, respectively, with exposures of four hours each, shows the presence of the objects given in the following table. The current number assigned to each object is given in the first column, the approximate right ascension and declination for 1900, in the second and third, and a brief description of the object in the fourth column. The letters n, s, p, and f, in the fourth column are used to indicate north, south, preceding, and following, respectively.

¹ *Harvard College Observatory Circular* No. 38.

Number	R. A. 1900		Dec. 1900		Description
	h	m	°	'	
1	3	10.0	—50	58	2 faint elong. neb.
2		13.7	—51	1	Elong. n to s, small.
3		16.0	—49	57	Spiral?
4		16.7	—51	3	Elong. n to s.
5		17.2	—52	33	Double, elong. sp to nf.
6		19.4	—53	33	Elong. n to s.
7		21.4	—53	4	Stellar.
8		21.7	—51	5	Stellar.
9		21.7	—51	3	Stellar.
10		21.8	—50	55	Stellar.
11		22.1	—52	3	Elong. stellar.
12		22.3	—51	37	Elong. np to sf, stellar.
13		22.3	—52	3	Elong, stellar.
14		22.3	—52	5	Very faint.
15		22.5	—51	37	Elong. np to sf.
16		22.9	—51	41	Elong. n to s.
17		22.9	—53	8	Ellip. elong. sp to nf.
18		23.1	—50	22	Stellar, elong. spiral?
19		23.5	—51	40	Stellar, elong. np to sf.
20		24.4	—53	22	Perhaps double star.
21		24.8	—51	25	Elong. p to f.
22		24.8	—52	29	Neb. star.
23		25.2	—53	1	Stellar, elong. n to s.
24		26.5	—52	59	Stellar.
25		26.6	—52	58	Stellar.
26		27.6	—50	40	Stellar.
27		27.7	—50	39	Spiral?
28		27.7	—50	37	Star prec.
29		28.1	—50	46	Elong. np to sf.
30		28.3	—53	29	Elong. sp to nf.
31		28.6	—52	15	Fine small spiral.
32		29.4	—52	47	Elong. sp to nf.
33		29.9	—51	47	Stellar.
34		30.2	—50	45	Elong. np to sf.
35		30.9	—53	30	Elong. p to f.
36		31.2	—51	39	Stellar.
37		31.8	—50	58	Stellar.
38		33.2	—52	58	Elong. p to f.
39		33.6	—52	18	Elong.
40		33.6	—52	19	Elong.
41		33.7	—49	54	Elong. np to sf.
42		34.1	—50	29	Elong. n to s.
43		39.1	—51	17	Stellar.
44		41.9	—51	51	Stellar, elong. sp to nf.
45		42.3	—51	19	Stellar.
46		43.0	—51	58	Elong. n to s.

Only two nebulae are given, in this region, in Dreyer's *New General Catalogue*. *N. G. C.* 1311 is identical with No. 5, and *N. G. C.* 1356 is identical with No. 27.

It will be noticed that four of these nebulae appear to be spiral.