

ECLIPSE OF JUPITER'S FOURTH SATELLITE.—The following account by Dr. T. D. Simonton of an observation of the first eclipse of this satellite which has occurred since 1880, June 16, appears in the 'Sidereal Messenger':—

"As I had never noticed a predicted eclipse of the satellites to fail, by a minute even, it was a great surprise to see this 4th satellite, though faint beside two others near at hand, continue plainly visible minute after minute beyond the predicted time. And this continued up to 10^h 50^m (Washington time), when for the first time I was sure of a diminution of light. There was now a rapid waning, till at 10^h 55^m, if visible at all, the light of the body was excessively faint. This continued but a minute or two, however, when I was sure of it again by glimpses, and in a minute or two more, before 11^h 0^m, could see it steadily. As it now grew in brightness I ceased looking before 11^h 10^m. We have here, I suppose, a return of the conditions bringing about a stated eclipse of this satellite, though in this first predicted instance I doubt if for a single moment the whole body was brought within the sweep of the great shadow of its primary." The observation was made with a three-inch achromatic. The predicted times of disappearance and reappearance in the American 'Nautical Almanac' are 10^h 28^m 28^s.9, and 11^h 27^m 13^s.3 Washington Mean Time, corresponding to 15^h 36^m 41^s.0 and 16^h 35^m 25^s.4 G.M.T.

NEW NEBULÆ*.—M. E. Stephan, at the Observatory of Marseilles, has recently published a list of 96 nebulæ which he has observed within the last two years. The great majority of these are new discoveries; but several seem to be observations of nebulæ, the places of which in Herschel's Catalogue are slightly in error. Their mean places for the beginning of 1880 are as follows:—

No.	R.A.			N.P.D.			No. in Herschel's Catalogue.
	h	m	s	°	'	"	
42.....	11	9	8.45	71	14	8.7	2352
43.....	11	10	28.49	71	19	39.1	2356
44.....	11	10	36.52	71	17	35.0	2358
45.....	11	10	40.73	71	11	46.7	2359
58.....	14	4	57.55	69	49	12.8	3800 probably
85.....	17	50	44.21	71	38	33.5	4348
86.....	17	50	48.57	71	36	27.1	4349
95.....	23	37	51.90	64	35	26.2	5004

The two following are identified with two in Dreyer's Catalogue:—

No.	R.A.			N.P.D.			No. in Dreyer's Catalogue.
	h	m	s	°	'	"	
39.....	10	38	36.09	82	46	18.7	5534 probably.
90.....	18	59	30.57	96	10	23.4	5940, of which the polar distance is 2' wrong in the catalogue.

* Comptes Rendus, Vol. xevi. Nos. 9 and 10.