AN....105

There is some doubt about the proper order of the star Uran. Arg. Nr. 28 = Ll. 234 in the light scale, which cannot be cleared up until more observations are obtained. This uncertainty cannot affect the following determinations of brightness of the variable more than a small fraction of a step, as comparisons were made with three or four stare on each evening.

Light of the Variable.

			L.				L.
1881	Dec.	18	14.0	1882	Aug.	12	8.8
		19	14.0			13	9.0
1882	Jan.	7	14.5			19	9.7
		9	14.5			20	10.0
		24	10			21	9.3
		29	6.3		Sept.	5	6.3
	Feb.	1	5.0			7	7.0:
		2	5.0			12	9.7
		6	5.0			14	10.7
		8	4.0			27	8.3
		11	4.0		Oct.	9	7.7
		15	4.5		Nov.	2	11.0
	June	22	6.2			9	11.5
		29	9.2			17	11.2
	July	6	8.5			24	11.5
		23	13.0			27	13.5
		25	12.2		Dec.	3	11.5
	Aug.	2	8.5			8	13.2
		6	5.3			12	12.5
		9	7.5			20	9.0
		11	6.0			24	6.8

			L.				L.
1882	Dec.	29	9.3	1883	Jan.	4	8.5
		30	10.0			16	5.0
1883	Jan.	1	9.3			26	5.2
		3	9.3				

A chart of the above observations shows more or less decided phases on the following dates

Maxima.	Minima.
1882 Jan. 7	1882 Feb. 10
July 23	Aug. 6
Nov. 27	1883 Jan. 16

These times may be satisfied with a period of about 65 days; but the indications are, either that this is a multiple of the true period, or that the light curve has well marked secondary phases.

Although the star attains nearly the 5. mag. at maximum, it does not occur in Argelander's Uranometry, Heis's Atlas, or Houzeau's Uranometrie Générale. The Uran. Argentina gives it as 6.5 mag., and Dr. Gould writes me that it was never observed brighter than 6.3 at Cordoba. Lalande observed it twice as 6 m; Argelander twice (Southern Zones) as 6 and 6.7 m; Schmidt twice as 6.0 m., (BB. VI), and at Washington in 1848 it was called 5 m. in the mural circle on Aug. 31, and on Sept. 1 as 5 m. in the mural circle, and on the same night as 6.7 m. in the Transit instrument. The whole range of variation being only a magnitude and a quarter, these telescopic estimates are not of much significance. The star is noticeably red.

Harvard College Observatory 1883 May 6.

S. C. Chandler jr.

New Planetary Nebulae.

The two objects, the places of which are given below, have the spectra of gaseous nebulae, but otherwise resemble stars. They were detected 1883 May 8.

α 1880.0	δ 1880.0	Magn.	Remarks
$19^h\ 6^m32^s$	$+\ 46^\circ\ 4'.2$	11	Also faint continuous spectrum.
19 46 21	+ 48 39.5	12	

Harvard College Observatory, Cambridge, U. S., 1883 May 12.

Edward C. Pickering.

Inhalt:

Geschlossen 1883 Mai 31. Herausgeber: A. Krueger. Druck von C. F. Mohr. Expedition: Sternwarte in Kiel.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System