Extended Nebula near 26 Ceti. By Dr Max Wolf,
Assoc. R.A.S.

On four plates taken with the Bruce 16-inch telescope in September I find an extended nebula, which attracts attention both by its situation and its appearance.

Practically all extended nebulosities are found in or near the Milky-way, but this object is about 70° distant from the plane of the Milky-way. Its densest part is situated at

$$\alpha = 0^h 57^m \cdot 4 \quad \delta = +1^\circ 20' \quad (1885 \cdot 0)$$

Round this is spread faint nebulous matter of varying intensity. At several points small clouds of greater density shine forth. Further out, the intensity is so feeble that it is impossible to exactly define its limits. It seems that these will be materially altered by lengthening the exposure. My exposures extend to four hours. With these the nebulous cloud extends about $40'$ in declination and about $30'$ in R.A. The three B.D. stars

	h m	
$+1^\circ 191$	$\alpha = 0 \ 56 \cdot 4$	$\delta = +1^\circ 24'$
$1 \ 200$	$57 \cdot 0$	$1 \ 27$
$1 \ 201$	$57 \cdot 3$	$1 \ 32$

are all involved in the cloud.

Southwards it reaches nearly to the B.D. star

$$+0^\circ 207 \quad 0^h 56^m \cdot 9 \quad +1^\circ 0'$$

but it cannot be certainly detected up to the star. Especially towards the west the nebulous matter promises to go much further.

Under the microscope the brighter parts of the mass are filled with numerous very small spots and short trails, so that the appearance is very different from that presented by the Milky-way nebulae. It seems possible that this object is a multitude of very small planetary nebulae collected in a cluster, which a more powerful instrument than mine may perhaps resolve.

Astrophysical Observatory, Heidelberg:
1906 October.

Observations of the Satellite of Neptune from Photographs taken at the Royal Observatory, Greenwich, between 1905 December 19 and 1906 April 25.

(Communicated by the Astronomer Royal.)

The following measures of position-angle and distance of Neptune's satellite were made from photographs taken with the 26-inch refractor of the Thompson equatorial. The occulting shutter was used as in previous years. The photographs were

taken by Messrs Davidson, Edney, or Melotte, and were measured in a position micrometer in direct and reversed positions by Messrs Davidson and Edney. The tabular positions with which comparison is made were computed from the data given in the *Connaissance des Temps*, based on Dr Hermann Struve's elements, the eccentricity of the orbit being neglected.

A discussion of these residuals gives the following differences in the sense Tabular-Observed to Dr Hermann Struve's elements

$$du = -0^{\circ}87 \quad dN = -1^{\circ}16 \quad dI = +0^{\circ}17 \quad da = +''090$$

giving for the epoch 1906.2

$$a = 16''181 \quad N = 188^{\circ}71 \quad I = 116^{\circ}51.$$

NEPTUNE AND SATELLITE.

Position-angle and Distance from Photographs taken with the 26-inch Refractor.

Date and G.M.T.					Position-angle.			Distance.		
					Observed.	Tabular.	T.-O.	Observed.	Tabular.	T.-O.
1905	d	h	m	s						
Dec.	19	10	58	6	115°48	115°58	+0°10	15"02	15"46	+0"44
1906										
Jan.	13	11	7	27(a)	(45°38)	45°03	(-0°35)	(13°32)	12°93	(-0°39)
	13	11	35	28	42°43	43°68	+1°25	12°46	12°81	+0°35
	19	12	13	11(b)	32°04	32°62	+0°58	11°80	12°00	+0°20
	19	12	26	45	29°73	30°75	+1°02	12°01	11°89	-0°12
	22	11	8	9	212°11	211°36	-0°75	12°14	11°92	-0°22
	22	11	34	27(c)	208°37	209°88	+1°51	11°56	11°84	+0°28
Feb.	3	7	59	26	200°43	201°90	+1°47	11°63	11°43	-0°20
	3	8	30	0	199°21	200°05	+0°84	11°25	11°37	+0°12
	3	9	0	31	198°52	198°18	-0°34	11°09	11°30	+0°21
	3	9	29	57	195°08	196°34	+1°26	11°11	11°24	+0°13
	3	9	54	56	193°08	194°78	+1°70	11°14	11°20	+0°06
	12	9	44	45	359°23	358°54	-0°69	10°88	11°00	+0°12
	12	10	9	58(g)	356°21	356°90	+0°69	10°95	11°01	+0°06
	12	11	7	42	352°68	353°18	+0°50	10°83	11°05	+0°22
	14	10	2	25	245°45	246°53	+1°08	15°03	15°09	+0°06
	14	10	27	31	244°40	245°66	+1°26	14°98	15°00	+0°02
	14	10	54	48	243°99	244°69	+0°70	14°79	14°88	+0°09
	14	11	16	4(b)	242°63	243°94	+1°31	14°82	14°80	-0°02
	15	9	13	7(d)	174°71	174°91	+0°20	11°06	11°02	-0°04
	20	9	44	29	239°21	240°83	+1°62	14°41	14°44	+0°03
	20	10	11	26	238°34	239°81	+1°47	14°32	14°33	+0°01
	20	11	14	39(f)	236°88	237°38	+0°50	14°22	14°07	-0°15
	23	10	36	42(h)	54°10	55°38	+1°28	13°47	13°84	+0°37
	23	11	8	31(g)	53°25	54°08	+0°83	13°19	13°76	+0°57
Mar.	2	9	35	20(e)	326°92*	327°27	+0°35*	11°38*	11°99	+0°61*

* Half weight.

NEPTUNE AND SATELLITE—*continued.*

Date and G.M.T.					Position-angle.			Distance.		
					Observed.	Tabular.	T.-O.	Observed.	Tabular.	T.-O.
1906	d	h	m	s	°	°	°	"	"	"
	2	10	2	6(c)	324.13	325.85	+1.72	12.05	12.09	+0.04
	2	10	31	44	324.89	324.30	-0.59	12.01	12.20	+0.19
	2	10	54	35	322.23	323.13	+0.90	12.10	12.28	+0.18
	3	10	13	17	272.44	273.23	+0.79	16.32	16.57	+0.25
	3	10	46	39	271.03	272.31	+1.28	16.50	16.59	+0.09
	3	11	15	41(c)	269.96	271.50	+1.54	16.29	16.59	+0.30
	7	9	50	59(c)	42.14	41.69	-0.45	12.73	12.49	-0.24
	7	10	18	28(c)	39.38	40.33	+0.95	12.27	12.38	+0.11
	7	10	44	20(h)	(34.29)	39.03	(+4.74)	(12.54)	12.28	(-0.26)
	7	11	13	13	36.85	37.55	+0.70	12.11	12.17	+0.06
	12	8	37	32	87.88	88.49	+0.61	16.84	16.50	-0.34
	12	9	6	27	86.84	87.68	+0.84	16.65	16.48	-0.17
	12	9	47	24	85.73	86.53	+0.80	16.97	16.45	-0.52
	22	10	25	50	192.30	194.89	+2.59	11.03	10.96	-0.07
	22	10	50	41	192.73	193.32	+0.59	11.03	10.92	-0.11
	29	9	20	53(j)	113.24	114.16	+0.92	14.71	14.88	+0.17
	29	9	50	37(f)	111.06	113.17	+2.11	15.16	14.99	-0.17
Apr.	3	8	38	41(k)	178.90	179.05	+0.15	11.10	10.70	-0.40
	3	9	5	39(d)	176.31*	177.32	+1.01*	10.77*	10.71	-0.06*
	3	9	36	35(e)	174.96	175.31	+0.35	10.97	10.73	-0.24
	3	9	59	32(j)	(169.80)	173.84	(+4.04)	(11.50)	10.75	(-0.75)
	4	8	8	17	109.36	110.75	+1.39	15.11	15.18	+0.07
	4	8	41	8	108.17	109.70	+1.53	15.21	15.28	+0.07
	4	9	7	7	106.93	108.88	+1.95	15.22	15.36	+0.14
	4	9	31	40	107.38	108.11	+0.73	15.24	15.43	+0.19
	6	8	2	7(c)	355.38	355.69	+0.31	10.42	10.70	+0.28
	6	8	31	33	352.96	353.80	+0.84	10.75	10.73	-0.02
	6	9	4	38	352.31	351.68	-0.81	10.72	10.76	+0.04
	6	9	36	11	351.09	349.67	-1.42	10.75	10.80	+0.05
	9	8	2	57(h)	169.98	169.96	-0.02	10.67	10.77	+0.10
	9	8	38	56	165.97	167.68	+1.71	10.97	10.82	-0.15
	9	9	8	12(e)	165.54*	165.86	+0.32*	10.99*	10.87	-0.12*
	10	8	13	36	103.34	105.12	+1.78	15.50	15.64	+0.14
	10	8	40	55(j)	103.50	104.01	+0.51	15.53	15.68	+0.15
	14	9	21	33	234.79	235.96	+1.17	13.79	13.52	-0.27
	19	8	49	48	275.68	276.44	+0.76	16.09	16.07	-0.02
	25	8	53	59(f)	269.24	271.41	+2.17	16.01	16.11	+0.10

(a) Image of Satellite imperfect.

(c) Diffused.

(e) Extremely diffused.

(g) Faint and diffused.

(j) Extremely faint.

(b) Neptune near edge of shutter.

(d) Very diffused.

(f) Faint.

(h) Very faint and diffused.

(k) Satellite touching fringe of secondary spectrum.

* Half weight.

Royal Observatory, Greenwich:
1906 November 7.

Observations of Comet c 1905, from Photographs taken with the 30-inch Reflector of the Thompson Equatorial.

(Communicated by the Astronomer Royal.)

The following positions of Comet c 1905 were obtained from photographs taken with the 30-inch reflector.

Exposures of 4^m and 5^m were given on December 8 and 9, from 1^m to 3^m on December 19, and ½^m for the remainder.

The plates were measured in the astrographic micrometer. Six reference stars were taken where possible, situated as symmetrically as possible about the comet. The positions of the stars were taken from the catalogues of the Astronomische Gesellschaft, or from Karlsruhe Observations 1885·0, or the Radcliffe Catalogue 1890.

Date and G.M.T.		Apparent R.A.		Apparent Decl.		Log Δ.	Corr. for Parallax.					
							R.A.	Decl.				
1905.												
	d	h	m	s	h	m	s					
						°	'	"				
									s			
									"			
Dec.	8	17	12	41	14	31	18	99	+ 20 5 4.6	0.1475	- 0.25	+ 4.0
	9	17	8	3	14	36	10	66	+ 19 36 56.7	0.1409	- 0.25	+ 4.1
	9	18	7	51	14	36	23	48	+ 19 35 45.6	0.1409	- 0.21	+ 3.8
	19	17	30	37	15	30	26	34	+ 13 46 40.0	0.0903	- 0.27	+ 4.9
	19	17	58	6	15	30	33	11	+ 13 45 52.8	0.0903	- 0.25	+ 4.8
1906.												
Jan.	6	18	40	17	17	34	40	56	- 3 10 49.9	0.0425	- 0.28	+ 6.3
	7	18	46	53	17	42	39	12	- 4 21 40.3	0.0425	- 0.28	+ 6.4
	9	18	46	6	17	58	56	01	- 6 46 9.6	0.0441	- 0.29	+ 6.4
	10	18	39	27	18	7	16	25	- 7 59 46.0	0.0457	- 0.29	+ 6.4

Royal Observatory, Greenwich :
1906 November 9.