

1853, April 22.

PROFESSOR DE GASPARIS, on the evening of the 5th of this month, noticed, in the Constellation *Leo*, a small star of the 12 magnitude, which on the following evening he knew to be a planet by its motion.

He observed it as follows : —

1853.	M. T. Naples.	⊙ App. α	⊙ App. δ
	h. m. s.	h. m. s.	h. m. s.
April 6	8 55 34	11 4 17.75	+6° 48' 40"
7	9 16 48	11 3 50.15	+6° 50' 48"

Here you have a new planet which was discovered a day earlier than the discovery of *Phocæa* by Mr. CHACORNAC at Marseilles. The symbol ⊙ belongs to this planet according to your notation; and Professor VALZ will have to exchange ⊙ for ⊙.

I can send you one more observation of Comet 1853, I., made by Mr. Privy-Councillor von REEDTZ at his observatory in Palsgaard; also elements of the same comet, computed by him from observations at Rome, March 7, Berlin, March 19, and his own of March 30. They are : —

T	1853, Feb. 24.02594 M. T. Berlin.
π	153° 38' 29".8 } Mean Equinox,
Ω	69 56 25.4 } 1853.215.
i	20 23 16.8
Log. q	0.0388096
	Motion Retrograde.

1853.	M. T. Palsgaard.	⊙ α	⊙ δ	No. of Comp.
	h. m. s.	h. m. s.	h. m. s.	
March 30	8 49 40.9	68° 4' 3".2	+9° 19' 52".0	2

Apparent Place of Comparison-Star.

* α	* δ
h. m. s.	h. m. s.
4 30 56.72	+9° 20' 32".1

A. C. PETERSEN.

THE SECOND COMET OF 1853.

PROFESSOR PETERSEN has communicated the following observations of the comet discovered by Professor SCHWEIZER at Moscow, on the 4th of April.

At Königsberg.	M. T. Königsberg.	⊙ α	⊙ δ
	h. m. s.	h. m. s.	h. m. s.
1853, April 16	13 23 48	306° 53' 13"	+12° 33' 50"
At Hamburg.	M. T. Hamburg.	⊙ α	⊙ δ
	h. m. s.	h. m. s.	h. m. s.
1853, April 16	13 43 48	306° 55' 48".9	+12° 33' 10".9

ADDITION TO THE OBSERVATIONS OF BIELA'S COMET AT CAMBRIDGE (ENG.), IN 1845-46.

[LETTER FROM PROFESSOR CHALLIS TO PROFESSOR HUBBARD.]

In my former communication, the assumed places of only a portion of the comparison-stars depended on recent Cambridge observations. I have now completed the observations of the remainder, and the following is a list of corrections which, according to these observations, should be applied to the assumed R.A. or N. P. D. of the stars, and consequently to the resulting R.A. or N. P. D. of the comet.*

Star.	Correction to R.A. s.	Correction to N. P. D. "	Star.	Correction to R.A. s.	Correction to N. P. D. "
x'	-0.19	-2.0	dd	+0.02	+0.7
y	+0.56	+0.4	gg	-0.01	-4.4
z	+0.59	-5.1	hh	+0.25	+0.5
aa	-0.01	+1.3	ii	-0.07	-3.1
bb	-0.07	-0.4	mm	-0.54	+4.1
cc	-0.07	-2.9	ll	-0.25	+5.8
ee	+0.11	0.0	kk	+0.17	+12.6
ff	-0.27	-1.0			

Star.	Correction to R.A. s.	Correction to N. P. D. "	Star.	Correction to R.A. s.	Correction to N. P. D. "
q	-0.37	+0.7	t	+0.00	-3.0
r	-0.22	-2.2	v	-0.40	+3.8
s	+0.09	+6.8	w	-0.29	-2.9
u	+0.04	-1.0	x	-0.29	-4.8

I found in my memorandum-book that I noted the time of apparent coincidence of the comet on April 13 with a very small star, whose place I have just determined by equatorial observations. The result of this observation, which I believe to be pretty exact, is as follows : —

* These corrections have been incorporated into the table of residuals in pp. 76, 77 of this volume. H.

	Greenwich M. T.	R.A. of Comet.	Log $\frac{p}{P}$	N. P. D. of Comet.	Log $\frac{q}{P}$
1846, April 13	h. m. s. 8 48 53.0	h. m. s. 8 49 10.88	+8.190	103° 1' 58.2"	-9.9519

I have also gone over again my calculations of the relative positions of the two comets, which, as I before stated, depend partly on the separate determinations of their places, and partly on independent comparisons. I consider these results to be better than the former, a corrected value of the micrometer revolution having been employed in reducing them.

1846.	Greenwich M. T.	Difference of R.A.	Difference of N. P. D.	Weight of Result.
Jan. 23	h. m. 7 8.2	s. 5.18	" 123.3	5
24	7 1.3	5.11	127.3	4
27	6 25.5	5.84	145.4	4
28	6 19.2	5.77	151.9	4
29	7 22.8	5.44	155.3	4
Feb. 11	7 23.3	7.51	250.3	3
12	7 8.8	7.89	253.9	5
13	7 31.0	8.33	266.1	5
24	8 12.6	13.59	380.7	6

1846.	Greenwich M. T.	Difference of R.A.	Difference of N. P. D.	Weight of Result.
Feb. 25	h. m. 7 14.3	s. 13.99	" 391.4	8
27	8 1.3	15.30	415.1	4
28	7 31.5	16.72	427.9	1
Mar. 2	8 8.3	18.40	445.2	5
5	7 36.7	21.29	476.2	3
20	8 53.9	41.19	548.0	Doubtful.
25	8 50.7	46.26	507.1	2
27	9 7.3	47.37	482.4	2

As the observations of Biela's Comet at its last appearance will no doubt interest you, I send determinations which I have recently made of the places of the comparison-stars used at Cambridge and at Rome. Professor SECCHI left the places of his stars to be subsequently determined, but I have not yet seen them published.

Star.	Mean R.A. 1853.0.	No. of Obs.	Mean N. P. D. 1853.0.	No. of Obs.	Place and Date of Comparison.
<i>Astr. Nachr.</i> , No. 822, (s)	h. m. s. 7 29 33.82	2	68° 12' 32.4"	2	Rome, Aug. 25.
" No. 827, {	(b)	4	68 50 42.2	4	" " 27.
	(c)	4	69 26 25.9	4	" " 28.
	(d) = H. C. 16130	4	70 51 36.9	4	" Sept. 1.
	No. 836, 54 <i>Canceri</i>	3	74 6 27.7	2	Cambridge, Sept. 8.
" No. 828, * (mag. 10)	9 16 53.97	3	78 3 18.3	3	Rome, Sept. 15.
" No. 836, h <i>Leonis</i>	9 24 4.61	3	79 38 19.1	3	Cambridge, Sept. 16.
" No. 832, H. C. 19134	9 37 27.74	3	80 26 36.7	3	Rome, Sept. 19.
" No. 832, Weisse IX. 902	9 41 4.14	3	81 1 3.4	3	" " 20.
" No. 836, " 1011	9 46 53.32	2	82 13 21.5	3	Cambridge, Sept. 21.
" No. 836, " 1035	9 48 8.68	3	81 37 39.4	3	" " 21.

J. CHALLIS.

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