|        | $\Delta\alpha$ C—O. | $\Delta\delta$ |
|--------|------|------|
| May 29 | +18′3 | +12′0 |
| June 7 | —20,0 | + 2,1 |
| June 13 | —48,2 | — 1,8 |

That the fault was not in the Ephemeris was plain from the fact of its representing the Cambridge observations of Maja from April 9 to May 27, nine in number, and the first three of those made by Dr. *Peters*. It was at once conjectured that in the interval between May 12 and May 29, when clouds and moonlight intervened to prevent a close following of Maja which was only of the 13th. magnitude, Dr. *Peters* had lost its trace, and on resuming his observations had fallen upon a new planet. The subjoined elements were derived from the approximate places printed in the Astronomical Notices.

$$1861 \text{ May } 29,3851 \text{ Wash. m. t.}$$
$$M = 221°24′ 45″6$$
$$\pi = 350\ 28\ \ 7,3$$
$$\Omega = 208\ 37\ 18,8$$
$$i = \ \ 5\ 20\ \ 2,6$$
$$\varphi = \ \ 8\ 21\ 49,8$$
$$\mu = 1253″997$$

These were found to represent the series eight in number within a small fraction of a minute. Subsequently on

Cambridge U. S. 1862 Febr. 12.

obtaining corrected places of the comparison stars. Mr. *Safford* derived the following elements:

$$1861 \text{ May } 29,375 \text{ Wash. m. t.}$$
$$\left. \begin{array}{l} L = 213°\ 3′\ 24″1 \\ \pi = 329\ 22\ 16,5 \\ \Omega = 208\ \ 1\ 28,0 \end{array} \right\} \text{ M. Eq. 1861,0.}$$
$$i = \ \ 5\ 23\ 16,2$$
$$\varphi = \ \ 6\ 50\ 26,0$$
$$\mu = 1129″372$$
$$log\ a = 0,331446$$

Representing the observations as follows:

|        |    | C—O. | |
|--------|----|------|------|
|        |    | $\Delta\alpha$ | $\Delta\delta$ |
| May | 29 | +1″ | 0″ |
|     | 30 | —1 | —2 |
|     | 31 | —4 | 0 |
| June | 1 | —4 | 0 |
|      | 7 | +2 | 0 |
|      | 8 | —1 | —2 |
|      | 10 | +3 | —3 |
|      | 13 | +1 | 0 |

These numbers leave no doubt of the corretness of the hypothesis that the Hamilton College positions from May 29 to June 13 belong, not to Maja but to a new planet. It will be noticed that (72) hast the least mean distances yet recognised among the asteroids.

*G. P. Bond.*

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# Elements of Comet III. 1861.

The following elements have been computed by Mr. *H. P. Tuttle* for the Comet discovered by him Dec. 28 at this observatory and by Dr. *Winnecke* on Jan. 8.

$$T = \text{Dec. } 7,20249 \text{ Gr. m. t.}$$
$$\pi = 173°27′ 42″7$$
$$\Omega = 145\ \ 7\ 59,4$$
$$i = \ \ 41\ 51\ 54,2$$
$$log\ q = 9,923922$$

Motion Retrograde.

Observations of Dec. 28, Jan. 1, 4 and 7.

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# On the Companion of Sirius, by Prof. *G. P. Bond*, Director of the Observatory of Harvard College.

An interesting discovery of a companion to Sirius was made on the evening of Jan. 31 by Mr. *Clark* with his new object-glass of eighteen and one half inches aperture.

I have been able to observe it with our refractor of fifteen inches, as follows:

| 1862 Febr. 10 | Angle of Position | 85° 15′ | ±1°1 |
|---|---|---|---|
|  | Distance | 10″37 | ±0″2 |

When the images are tranquil the companion is distinctly enough seen, but these moments are quite rare, as the low altitude of Sirius exposes it to almost continual atmospheric

disturbances. I shall take the first favourable opportunity of repeating the measures which not improbably may stand in need of correction, especially in the distance.

The discovery is a very strong testimonial to the excellence of the new object-glass, but I was quite prepared for such a proof of its powers from having already witnessed its excellent performance on other stars. The focal lenght is twenty-three feet which is only a few inches longer than that of the great refractors of Cambridge and Poulkowa; the angle of aperture is consequently considerably larger which must be regarded as an advantage since it seems to have been gained without sacrifice of defining power.

## Beobachtungen auf der Wiener Sternwarte, mitgetheilt von Herrn Director v. Littrow.

### (59) Elpis.

| | Mittl. Wien. Zt. | Scheinb. AR. | L.F.P. | Scheinb. Decl. | L.F.P. | Stern | Vergl. | Beob. |
|---|---|---|---|---|---|---|---|---|
| 1861 Febr. 27 | $10^h 16^m 59^s 2$ | $8^h 15^m 48^s 64$ | 7,774 | $+12^\circ 25' 25''3$ | 9,769 | b | 5 | Weiss |
| 27 | 11 24 24,7 | 8 15 47,44 | 8,275 | +12 25 55,3 | 9,777 | a | 3 | = |
| 28 | 8 4 53,6 | 8 15 25,04 | 8,271 | +12 30 26,6 | 9,776 | a | 6 | = |

Die Beobachtungen sind am Refractor von 6″ Öffnung angestellt, die Declinationsbestimmungen vom 27sten Februar mit Stern b unsicher.

### Mittlerer Ort der Vergleichsterne für 1862,0.

| | AR. | $\delta$ | |
|---|---|---|---|
| a | $8^h 17^m 15^s 83$ | $+12^\circ 11' 17''3$ | Lal. 16476 |
| b | 8 16 19,04 | +12 28 37,1 | Mikrom.-Vergl. mit a. |

Beide Sterne werden am Meridiankreise bestimmt.

Im Mittel aus sämmtlichen Positionen ergiebt sich der Fehler der Weiss'schen Ephemeride (Beob.—Rechn.)

$$\Delta \alpha = -11^s 32 \qquad \Delta \delta = +37''9.$$

Wien 1862 März 1.        *Littrow.*

## Schreiben des Herrn *Karlinski*, Adjuncten der k. k. Sternwarte in Prag, an den Herausgeber.

Soeben bekam ich die № 1350 der Astr. Nachr. und beeile mich, zu melden, dass der von Herrn *Pogson* am 9ten August 1861 gesehene Planet kein neuer war, sondern (46) Hestia, deren Position nach meiner, nur handschriftlich Herrn Dr. *Förster* mitgetheilten Ephemeride war

| $12^h$ m. Berl. Zt. | geoc. AR. | geoc. Decl. | $log \Delta$ |
|---|---|---|---|
| 1861 Aug. 8 | $20^h 14^m 14^s 85$ | $-16^\circ 27' 10''9$ | 0,081178 |
| 9 | 20 13 25,50 | -16 31 8,3 | 0,081782 |

und nach den mir gütigst mitgetheilten Berliner Beobachtungen die Correction dieser Ephemeride

| | Beobachtung — Rechnung | |
|---|---|---|
| am 6ten August | $d\alpha = +0^s 75$ | $d\delta = -3''5$ |
| = 15ten = | +0,73 | -3,1 |

betrug.

Prag 1862 März 4.        *Fr. Karlinski*

9 *