

FROM A LETTER OF PROFESSOR BRÜNNOW TO THE EDITOR.

Ann Arbor, 1856, July 24.

I HAVE made the following observations of *Flora* with the Meridian Circle.

1856.	Ann Arbor M. T.	⊙ α			⊙ δ		
		h.	m.	s.	h.	m.	s.
June 4	12 59 55.3	17	55	24.89	-18°	47'	48.2"
9	12 35 2.4	17	50	10.66	18	55	44.1
11	12 24 59.8	17	47	59.56	18	59	7.7
28	10 59 11.4	17	28	58.62	19	32	44.3
July 1	10 44 15.9	17	25	50.25	19	39	22.7
2	10 39 19.4	17	24	49.55	-19	41	37.5

I have compared these observations with the Ephemeris in ENCKE'S *Jahrbuch*, which is calculated from my tables, and found the following errors (Eph. — Obs.) :—

	$\Delta \alpha$	$\Delta \delta$		$\Delta \alpha$	$\Delta \delta$
June 4	-0.04 ^{s.}	+2.6 ["]	June 28	-0.05 ^{s.}	+1.0 ["]
9	+0.07	+2.0	July 1	+0.12	+1.3
11	+0.01	-0.3	2	+0.10	+0.8

An observation by Mr. G. RÜMKE, in Hamburg, published in the *Astr. Nachr.*, gives the following error :—

	$\Delta \alpha$	$\Delta \delta$
June 10	-0.02 ^{s.}	+2.6 ["]

The error of my tables is therefore now, after four years (the last opposition used for computing the tables was that of 1852),

$$+0.027^{\text{s.}} \text{ in } \alpha, \quad \text{and } +1.4^{\text{"}} \text{ in } \delta.$$

F. BRÜNNOW.

OBSERVATIONS OF THE VARIABLE STARS.

IN Nos. 80 and 82 of the *Astronomical Journal* were published an article by Professor ARGELANDER on the Minima of *Algol*, — describing also the method of observation, — and an appeal to American students of astronomy to take part in these important observations, requiring as they do no apparatus or equipment beyond what is within the reach of every one. An appeal to the same effect was also made through the columns of journals more widely circulated, and it is to be hoped that some interest may have been awakened for the investigation of the strange and striking phenomena of the variable stars; and that observers may be found wherever there is a love for astronomy, and a disposition to labor for its advancement.

To the present number, Professor ARGELANDER has contributed an ephemeris of the minima visible in the United States during the coming autumn and winter, and the Editor would

again earnestly appeal to all interested in astronomical science to undertake and fulfil their share of the labor, and communicate their results to him from time to time.

Professor ARGELANDER has also annexed an ephemeris of the minima of *T Cancri*, which requires a telescope or spy-glass of low power, but no other apparatus; and the number of those who possess or have access to such instruments is so very large, that the Editor cannot but entertain a sincere hope that numerous observations of the minima of this star may also be made.

In the *Astronomische Nachrichten* for Sept. 9 is also an article by Professor ARGELANDER with a discussion of the observations upon the light of the variables α *Herculis*, δ *Cephei*, *R Aquilæ*, and χ *Cygni*. The period of the former is still doubtful, and every observation is of great value. The con-

cluded elements of the variability of the latter annexed, are in Bonn Mean Time.

δ Cephei.

Fundamental Epochs		h.	m.	s.	m.	s.
Minima,	1840, Sept. 24,	20	42	57 \pm	8	45
Maxima,	1840, Sept. 26,	11	18	26 \pm	10	23.5
Period,	^{d.} ^{h.} ^{m.} ^{s.}	5	8	47	39.974	

Appended to the fifteenth volume of the *Radcliffe Observations* (for 1854) is an interesting and valuable catalogue of the variable stars, their places and their periods, so far as ascertained, together with copious notes by Mr. POGSON, the well-known and zealous assistant at the Radcliffe Observatory. Mr. POGSON intimates his intention of preparing a more extended work upon the same subject.

G.

DISTRIBUTION OF ASTEROID-OBSERVATIONS.

THE appeals to astronomers for a systematic distribution of the duty of observing the small planets have now met with a promptly favorable reception, and regular observations of every asteroid have been undertaken at one or more observatories.

Professor PETERS has recently given in the *Astronomische Nachrichten* a table presenting for reference a view of this distribution so far as at present undertaken, and this is here reproduced for convenience. — It will be observed that the amounts of labor thus undertaken by different observatories is extremely unequal, and it is earnestly to be hoped that some of the fifteen asteroids which have as yet been undertaken by only one observatory may yet be adopted by American observers.

The Editor of the *Journal* has signified his willingness to be responsible for regular series of observations of four asteroids, and to these the word *Albany* has been affixed in the

table. — It would, however, be manifestly improper to pledge the energies of an institution which has not yet commenced its active operations, even did no other considerations prohibit such a step; and the word *Albany* will therefore be interpreted as indicating the strong desire on the part of the Editor that the Dudley Observatory should immediately on entering into activity, assume its just proportion of the work; and his confidence that provision will be made for these observations at some American observatory under any circumstances.

It will be seen that, of the fifteen small planets which have been undertaken by one observatory only, there are nine which are not observed upon this continent.

No steps have as yet been taken towards the equally desirable end of distributing the labor of preparing elements and publishing ephemerides.

G.

ASTEROID-GROUP.

1856, October 8.

No.	Name.	Observatory.	No.	Name.	Observatory.
①	<i>Ceres</i> ,	Leipsic, Rome.	②②	<i>Calliope</i> ,	Göttingen, Vienna, Ann Arbor.
②	<i>Pallas</i> ,	Leipsic, Rome.	②③	<i>Thalia</i> ,	Berlin, Vienna.
③	<i>Juno</i> ,	Leipsic, Rome.	②④	<i>Themis</i> ,	Cambridge (Eng.), Berlin.
④	<i>Vesta</i> ,	Albany, Rome.	②⑤	<i>Phoece</i> ,	Washington, Berlin.
⑤	<i>Astrea</i> ,	Göttingen, Vienna, Ann Arbor.	②⑥	<i>Proserpina</i> ,	Cambridge (Eng.), Ann Arbor.
⑥	<i>Hebe</i> ,	Altona, Ann Arbor, Bilk.	②⑦	<i>Euterpe</i> ,	Vienna.
⑦	<i>Iris</i> ,	Altona, Albany.	②⑧	<i>Bellona</i> ,	Cambridge (Eng.).
⑧	<i>Flora</i> ,	Cambridge (Eng.), Ann Arbor.	②⑨	<i>Amphitrite</i> ,	Altona, Albany.
⑨	<i>Metis</i> ,	Cambridge (Eng.), Ann Arbor.	③①	<i>Urania</i> ,	Cambridge (Eng.).
⑩	<i>Hygea</i> ,	Altona.	③②	<i>Euphrosyne</i> ,	Berlin, Vienna, Ann Arbor.
⑪	<i>Parthenope</i> ,	Altona, Bilk.	③③	<i>Pomona</i> ,	Vienna.
⑫	<i>Chio</i> ,	Cambridge (Eng.), Ann Arbor.	③④	<i>Polymnia</i> ,	Berlin, Vienna.
⑬	<i>Egeria</i> ,	Washington.	③⑤	<i>Circe</i> ,	Cambridge (Eng.), Berlin.
⑭	<i>Irene</i> ,	Washington.	③⑥	<i>Leucothea</i> ,	Washington.
⑮	<i>Eunomia</i> ,	Altona, Albany.	③⑦	<i>Atalanta</i> ,	Berlin, Vienna.
⑯	<i>Psyche</i> ,	Washington, Berlin.	③⑧	<i>Fides</i> ,	Washington.
⑰	<i>Thetis</i> ,	Washington.	③⑨	<i>Leda</i> ,	Göttingen, Vienna.
⑱	<i>Melpomene</i> ,	Washington.	④①	<i>Letitia</i> ,	Altona.
⑲	<i>Fortuna</i> ,	Altona.	④②	<i>Harmonia</i> ,	Vienna.
⑳	<i>Massalia</i> ,	Göttingen, Vienna.	④③	<i>Daphne</i> ,	Vienna.
㉑	<i>Lutetia</i> ,	Berlin, Vienna.	④④	<i>Isis</i> ,	Göttingen, Vienna.