

ton Observatory, with the 5-inch finder, at 5h. 7m. (G.M.T.) on November 29, 1906.

At that time Venus was about  $1^{\circ} 49'$  from the sun's centre, and in moments of atmospheric steadiness the complete outline of the planet's disc was seen distinctly. The space within the circle always appeared a shade darker than that without, but this was probably a subjective effect. A bright spot was several times suspected in the bright part of the ring. If the atmospheric conditions are very favourable, the ring-phase of this planet may be seen again in 1914; after that there will be no further opportunity until 1972.

OBSERVATIONS OF JUPITER, 1906-7.—During the opposition of 1906-7 the Rev. T. E. R. Phillips observed Jupiter on 106 occasions, and records the results of his observations in a paper communicated to the Royal Astronomical Society (Monthly Notices, vol. lxvii., p. 522, June).

The most remarkable change, as compared with the previous opposition, was observed in the great development of the N. equatorial belt, which had become broader and darker, and, in August, was marked with numerous white rifts and dark reddish streaks along its S. edge.

Later in the apparition this belt was seen to be triple, the S. component being the darkest of the three. Changes of colour were also observed in this belt and on the whole of the disc lying between the N.N. temperate belt and the N. pole. Observations of the dark matter in the great S. tropical disturbance tend to confirm, in principle, Major Molesworth's hypothesis concerning the sudden transference of the dark matter from the following to the preceding end of the red spot; for this transference took place in about two weeks instead of taking nearly three months as it should do under normal conditions of transit.

#### AUGUST METEORS, 1907.

ENCOURAGED by the appearance of several bright Perseids on the nights of August 4 and 6 to expect a somewhat plentiful return of this shower, a careful watch was maintained of the sky on August 10, 11, and 12, but the results scarcely realised expectation. The display was by no means an abundant one, and the individual meteors were not so bright generally as in ordinary years.

The results of watches were as under:—

##### August 10.

10h. to 12h., twenty-five meteors per hour, of which half were Perseids; 13h. to 14h., forty-five meteors, of which two-thirds were Perseids; 14h. to 15h., twenty-five meteors seen, but there were many passing clouds from west. Two other observers at Bristol counted thirty-one meteors between 11h. and 12h.

##### August 11.

9h. to 10h., fifteen meteors; about half of them were Perseids; 13h. to 14h., thirty-six meteors, of which twenty-two were Perseids. Sky rather misty. The shower was regarded as very poor for August 11.

Miss Irene Warner, of Horfield Common, Bristol, obtained the following results:—

9h. 25m. to 10h. 5m., eleven meteors, including eight Perseids; 10h. 5m. to 11h. 5m., thirty-three meteors, including twenty-seven Perseids; 11h. 5m. to 11h. 40m., twelve Perseids.

The hourly number was about twenty-eight meteors, of which about twenty-four were Perseids.

Two other observers at Bristol, watching from 9h. to 11h., counted thirty-five meteors.

##### August 12.

Miss Warner watched as follows:—

9h. 15m. to 9h. 40m., five meteors; 10h. 10m. to 11h. 20m., twenty-one meteors; 11h. 20m. to 12h. 20m., twenty-three meteors. Fine meteor seen at 10h. 55m. with train. The path was from  $\delta$  to  $\alpha$  Cygni. At 11h. 20m. one as bright as Venus from about  $35^{\circ} + 58^{\circ}$  to  $60^{\circ} + 47^{\circ}$ .

11h. to 12h., about forty-five meteors, including thirty-three Perseids; 13h. to 14h., about fifty meteors, including thirty-five Perseids.

There were many passing clouds, rendering observation difficult, and the hourly numbers were derived from the number of objects seen during clear intervals.

Radiant point on August 10 =  $44^{\circ} + 56^{\circ}$ .

Radiant point on August 12 =  $47^{\circ} + 57^{\circ}$ .

A brilliant flash was noticed on August 11, 13h. 17m., probably given by a large Perseid falling in the southern sky, but this quarter was hidden from the observer by a building.

I would be glad to hear of any duplicate observations of the following objects seen on August 10:—

	h.	m.	...	...	...	...	...	...
(1)	10	22	...	1½	...	339	+66	to 306 + 57½
(2)	10	30	...	1	...	5	+26	,, 8 + 22½
(3)	11	6	...	1½	...	2½	+65	,, 54 + 73

No. 2 was a fine, bluish-white Cygnid, which flashed out suddenly in a short diving course. No. 3 was from the direction of the  $\lambda$  Aquilid radiant, and it moved very slowly, occupying 3½ seconds in sailing along its path of  $19^{\circ}$ . The nucleus was yellow, and it threw off a trail of reddish sparks.

Other showers were seen on August 10-12 from  $332^{\circ} + 50^{\circ}$  and  $333^{\circ} + 28^{\circ}$ .

W. F. DENNING.

#### TREASURY GRANTS TO UNIVERSITY COLLEGES.

THE report of the permanent advisory committee appointed on January 31, 1906, to advise the Treasury as to the distribution of the grant in aid of colleges furnishing education of a university standard has now been published.<sup>1</sup> The report states that a study of the problem how education of a university standard may be most advantageously assisted by State grants shows that there is at the present time considerable complexity surrounding the question, not only by reason of the overlapping due to various educational bodies carrying on similar work in the same areas, but also by reason of public money derived from rate or tax being voted for higher education by different authorities with insufficient information as to one another's operations. For these reasons the committee has obtained permission to shorten from five years to two the period for which the present re-allocation shall hold good. It is hoped that it will be possible by April 1, 1909, to make recommendations for a permanent arrangement.

With regard to the question of standard, the committee finds that it is only in comparatively few of the university colleges that the majority even of the day students have passed a matriculation examination or equivalent test. A well-recognised standard once established would make it easier for the colleges to coordinate their curricula with those of secondary schools. For the present, the report continues, a step may be taken in this direction by excluding rigorously from the category of university work all classes which are preparing students for matriculation.

The committee appointed two inspectors to visit the colleges which already receive grants and certain other institutions which had applied for recognition. Sir Thomas Raleigh, K.C.S.I., and Dr. Alex. Hill undertook this task, and their reports on the various institutions visited are printed as an appendix to the report.

After summarising the financial assistance received by the colleges from Imperial funds and recapitulating the rules laid down for its guidance in various Treasury minutes, the committee recommended that a new maximum limit for all grants be set up, and 10,000l. has been decided upon. This maximum relates only to the annual grants for general purposes, and is exclusive of grants for special purposes which may be made from time to time.

The grants recommended for the intervening period of two years, pending a settlement of the general questions referred to in the report, are shown in the following table:—

<sup>1</sup> "University Colleges (Great Britain)." Grant in Aid. [267]. Price 1s. 6d.