Meteor Observations—The Geminids.

REPORT BY THE DIRECTOR.

The Geminid shower of meteors was fairly well observed by several members in spite of the moonlight which interfered with observations in the early part of the night. One meteor was observed on the 11th December at 4 hrs. 36 mts. a.m. (S.T.) the duration of which was about half a second and the magnitude 3. On the 12th he saw three others between 4 hrs. 26 mts. and 4 hrs. 36 mts. They were obviously Geminids, swift and short.

Mrs. E. Voigt observed eight meteors of the last Geminid shower within a short time after 3 a.m. on the 12th December. Of these, three were as bright as a star of 1st magnitude and the others were of 3rd and 4th magnitudes. The first five followed each other at short intervals and then after a time the other three came at longer intervals. Their duration was about a second and they all fell from west to east. One seemed to start from 22 Monoceros, another from Procyon and another from Hydræ. The rest seemed to come from the direction of Castor.

Messrs. S. Woodhouse and H. Connell observed at 7 p.m. on the 8th December from the Presidency College, Calcutta, one very short swift meteor having its radiant point near Castor. This evidently was one of the Geminids.

On the 5th December between 9 hrs. 50 mts. and 11 hrs. p.m. they observed from the same place several fine meteors. These appeared to come from Perseus and travelled right across the zenith through Andromeda down towards the western horizon. One of these was particularly beautiful. It split, and the two halves finished their flight in two different directions. At 10 hrs. 45 mts. p.m. another noteworthy meteor came from Capella (*i.e.*,) α Aurigæ travelled south of Cassiopeia down in a north-westernly line. The atmosphere was not very clear.

Mr. G. N. Mukherji of No. 7, Dr. Durga Charan Banerjee Road, Calcutta, took a series of meteor observations of the last Geminid shower on the 11th December from 2 hrs. 55 mts. to 4 hrs. 30 mts. a.m. He observed eight meteors from 2 hrs. 55 mts. to 3 hrs. 30 mts. five from 3 hrs. 31 mts. to 4 hrs. 0 mts. and six from 4 hrs. 1 mt. to 4 hrs. 30 mts. a.m. He states that the colour of the meteors was white and the atmosphere was clear.

Mr. S. Sitaramaiya of the Kodai Kanal Observatory also took observations of meteors of the last Geminid shower. The following are the results :—

Date and period of watch.	Serial No.	Time.	Length.	Brightness.	REMARKS.
		H. M.	°		
December 10th, 4h.-30m. to 5h.-30m.	1	5—21	2	Very faint.	The time used is Indian standard time. Thin cloud on the western sky on the 10th ; and the sky was clear on 11th and 12th during observation.
December 11th, 4h.-45m. to 5h.-30m.	1	5— 1	2	Do.	
	2	5—11	6	Do.	
	3	5—14	2	Faint.	
	4	5—23	2	Very faint.	
December 12th, 4h.-20m. to 5h.-30m.	1	4—39	8	Faint.	
	2	4—40	9	Do.	
	3	4—43	6	Do.	
	4	4—45	4	Very faint.	
	5	4—52	5	Faint.	
	6	5—11	5	Bright, mag. ±.2	

Extracts from Publications.

Dr. Crommelin, at the Meeting of the British Astronomical Association held on the 30th November 1910, speaking in connection with Halley's Comet, said that Mr. Beattie (one of the observers) drew the conclusion that the Earth did not pass through the tail, but he (the speaker) would not like to pronounce positively on that. It was pretty clear that they did not go through the immense long streamer which all the observers had described in such glowing terms : that was seen in the morning sky at the time of transit, and for two or three days after. It was a puzzle to him how that beam went on so long in the eastern sky, when the Comet itself was in the west. Mr. Innes made the suggestion that when the tail got near the Earth, the Earth expelled it ; that the Earth had the same repulsive power as the Sun, and turned away the tail, so that they did not go through it. It was a pretty theory, but he could not altogether accept it. It seemed to him that if the Earth had any power of the kind, it could only act on tail matter extremely near it, and he did not see how it could push out the whole of that immense beam, the head being 12 million miles away. It did seem to him, however, as if the great beam was detached from the head before it passed in the neighbourhood of the Earth. But underneath this great beam, Professor Barnard drew a broad shade of faintly luminous matter, very much like what was described of the Comet