



# The Journal of the Astronomical Society of India.

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## Proceedings of Monthly Meeting of the Astronomical Society of India held on Tuesday, the 28th November 1911.

MR. H. G. TOMKINS, C.I.E., F.R.A.S., *President*, in the  
Chair.

MR. P. N. MUKHERJI, M.A., F.S.S., } *Secretaries.*  
MR. E. P. HARRISON, PH.D. }

The monthly meeting of the Astronomical Society of India was held in the Imperial Secretariat Buildings (ground floor) on Tuesday, the 28th November 1911.

The Proceedings were opened by the President, and the Minutes of the last meeting were confirmed.

The President then announced that the Council had considered a programme of work for the session and had decided—

- (a) To institute a system of instruction of classes by post.
- (b) To arrange for classes in elementary astronomy by means of lectures in Calcutta.
- (c) To arrange for the systematic regulation of observations by those who possess instruments.
- (d) To arrange for three public lectures in Calcutta during the session.

In order to work the details of these schemes, they had appointed a Scientific Committee in accordance with bye-law 42 and had also appointed Mr. B. N. Rakshit as Director of Classes and Mr. P. C. Bose as Secretary of the Committee and Director of the Meteoric Section.

The appointments were confirmed.

The Secretary then announced that the following presents had been received, and a hearty vote of thanks was awarded to the donors :—

1. Journal of the British Astronomical Association (Vol. XXII, No. 1).
2. Monthly Notices of the Royal Astronomical Society (Vol. LXXI, No. 9).
3. Rivista Di Astronomia of the Italian Astronomical Society (Anno V, Num. 11).
4. Monthly Weather Review of the Alipore Observatory for August 1911.
5. Journal of the Astronomical Society of Canada (Vol. V, No 5).

The President added that the Comptroller General had very kindly agreed to the telescope presented by Dr. Harrison to the Society being erected on the terrace of the Secretariat so that members might use it, and a vote of thanks was accorded to the Comptroller General with applause.

The following elections by the Council to the Society were then confirmed :—

1. G. C. CAMPBELL DEVON, Esq.
2. S. B. BUTENI, Esq.
3. R. T. GREER, Esq., I.C.S., C.S.I.
4. P. N. MUKHERJI, Esq., M.A.
5. G. S. APTE, Esq., M.A., B.Sc.
6. F. D. MURAD, Esq., M.Sc., B.A.

The first paper of the evening prepared by Messrs. C. K. Sircar and P. C. Bose on the Solar Eclipse was then read by Mr. Sircar, followed by some interesting lantern slide pictures on the screen which were duly explained by Mr. Sircar.

*The President.*—The method of taking the photographs I think consists of projecting the image on a screen and then photographing it. Of course in all these photographs you hold the camera in your hand.

*Dr. Harrison.*—Are these negatives or positives ?

*The President.*—Positives.

*Dr. Harrison.*—He did not get reversals ; did he ?

*The President.*—Oh ! no. I do not think the projected image would be strong enough for that.

The President, after inviting discussion on the paper, remarked that for the first paper of the session what had struck him during Mr. Sircar's reading was the thoroughness and systematic way in which Mr. Sircar and Mr. Bose had gone into the programme of their operations and then prepared their subject in minute details. The experience would be of great use and stand in good stead to the Society in their work during the coming season.

A hearty vote of thanks was duly accorded Mr. Sircar and Mr. Bose.

The next paper of the evening was contributed by Mr. Hart on the Movements of the Planets. Mr. Hart had already helped the Society with a similar diagram during last session for the Journal. The paper was kindly read by Dr. Harrison and followed by the Chart on the screen.

A vote of thanks was duly recorded to Mr. Hart.

The President then showed a Map of the Moon on the screen kindly sent in by the Revd. J. Mitchell, the first Director of the Lunar Section of the Society, which though unaccompanied by a paper proved of great interest. It was explained that the Council hoped to publish the maps in similar lines to the Star Charts last year. A hearty vote of thanks was duly returned to Mr. Mitchell for the trouble and pains he had taken to prepare the Map.

Dr. Harrison then read a paper kindly sent in by Mr. Evershed on a meteor which he had observed.

After inviting discussion on the subject, the President remarked that the Society had made another step in its progress in its meteoric work, inasmuch as in this case Mr. Evershed had succeeded in getting two observations and had also been able to calculate the height of the meteor and also follow its course. As regards the hissing sound, the President remarked that it is not uncommon for the observer to hear such a hissing sound following the course of the meteor. The President added that there was just a possibility that the Maharaja of Jalawar, who had been very energetic in the Meteoric Section and had sent the Society three very valuable specimens found by him last season, might be able to be present at one of the future meetings of the Society.

With reference to the specimens sent in by the Maharaja, Dr. Harrison remarked that beyond testing the magnetic qualities of the meteor nothing further had yet been done, but steps were being taken to find the density, which was, however, a very difficult matter as the pieces could not be put into water or any other liquid. He hoped, however, to be able to accomplish this shortly as soon as the instrument at the Presidency College had been repaired as it had lately badly broken, and to report in a week or two. He was also taking steps to have one of the pieces analysed.

In calling for a vote of thanks to Mr. Evershed, the President remarked that Mr. Evershed's contribution was an interesting one in every way both as a contribution from himself, a professional astronomer, to the Journal and also as a record of a very interesting observation. The President also called attention to the fact that the path of the meteor in this case too was not a straight line but zig-zag.

*Mrs. Voigt.*—Surely there must be an explanation of this, and we might refer the matter to one of the Home Societies.

*The President.*—Yes, I see no reason why this should not be done. I think the idea a good one and would ask our Secretary to please make a note of it.

A vote of thanks was accorded to Mr. Evershed for his interesting contribution. A paper was next read by Mr. Banerji on Brook's Comet, followed by some lantern slide pictures on the screen.

This was followed by a letter from Mr. Evershed, read by Dr. Harrison, forwarding three very beautiful photographs of the same Comet, which were thrown on the screen; two photos being of Brook's Comet and one of its spectrum.

*Mrs. Voigt.*—Is this the first appearance of this Comet?

*The President.*—Yes, it was discovered on the 21st of July; though Mr. Brook has discovered others, I think this is the first appearance of this one.

*Mrs. Voigt.*—What constellations has it been in?

*The President.*—Do you mean on the 27th of October?

The paper contributed by Mr. Banerji was here re-read by Mr. Rakshit who explained this point.

*The President.*—I gather you think these three stars are in Lyree? It would be rather interesting to see just about where the Comet was in Mr. Banerji's slide, and I will, therefore, put it on again.

It appeared that by a coincidence one of the positions of the Comet given by Mr. Banerji in his paper was dated the 27th October, the date of the photograph.

In asking for a vote of thanks to be returned to Mr. Banerji and Mr. Evershed, the President remarked that in Mr. Banerji's paper one had a piece of work which was not always as very interesting, namely the getting together of a large number of different peoples' observations for an object like this which was seen all over the world and reported on in various Journals. This was no light task. Mr. Banerji had taken the trouble to wade through innumerable Journals, etc., and as a result had read his interesting paper that evening in which he had ably summarized the observations, and the fortunate arrival of the slides on this same subject so kindly sent in by Mr. Evershed made the paper more interesting than ever.

A vote of thanks was then accorded to Mr. Banerji for his paper and to Mr. Evershed for his beautiful slides.

Dr. Harrison then read a few extracts from a paper on the Eclipse of the Sun by Mr. J. C. Ray.

*The President.*—May I ask Mr. Bose if he can bear out the statement about the lunar prominences? I think he observed them.

*Mr. Bose.*—Yes, I made a calculation of the prominences and found them to be about elevations of about 36,000 feet.

*The President.*—Did you take into account in your measurements of magnification of the image on your screen?

*Mr. Bose.*—Yes.

After a vote of thanks to Dr. Harrison, the President adjourned the meeting to Thursday, the 21st December, this date being fixed on account of the Christmas holidays, instead of the last Tuesday in the month as usual.

NOTES.—With reference to the zig-zag appearance of the meteor trail, it may be of interest to mention that while at Delhi I was able to witness the day-light fireworks. These consist of rockets which leave behind them a trail of visible smoke, and in the same way the balls, etc., when the rockets burst, leave long trains of coloured smoke behind them. In every case these trains presented a zig-zag appearance exactly as in the case of the meteor which persisted for a short time. I think there is no doubt that it is due merely to light air currents which break up the straight streak at first left.  
H. G. TOMKINS,