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Report of the Meeting of the Society held on Tuesday, 27th January 1914.

THE Ordinary Monthly Meeting of the Society was held on Tuesday, the 27th January 1914, in the Imperial Secretariat (Treasury Buildings), at 5 P.M. The Hon. Mr. W. A. Lee, F.R.M.S., the President, was in the chair.

The minutes of the previous meeting held on Tuesday, the 23rd December 1913, were read and confirmed.

The following presents received since the date of the last meeting were announced, and the thanks of the members were accorded to their donors:—

1. Journal of the Astronomical Society of Wales for 1912.
2. Government of India, Meteorological Department, Monthly Weather Review for August 1913.
3. Sociedad Astronomica De Barcelona for December 1913.
4. Journal of the British Astronomical Association for November 1913.

5. Monthly Notices of the Royal Astronomical Society for November 1913.
6. Rivista Di Astronomia E Scienze Affini for November and December 1913.
7. Formulæ for Atmospheric Refraction—Professional Paper No. 14—published by the Government of India.
8. Catalogue of the Library of the British Astronomical Association compiled up to July 31, 1912.

The election by the Council at their meeting of the 20th January 1914 of the Rev. W. S. Sutherland, M.A., D.D., Kalimpong, and of Babu Ambica Churn Law, Calcutta, as members of the Society, was confirmed.

President.—I would now ask Revd. Mr. Ridsdale to read the second half of his paper on the Moon. (*Mr. Ridsdale's paper.*)

President.—Ladies and gentlemen, I am sure we are very much indebted to Mr. Ridsdale for his paper on the forces which cause inequalities in the movements of the Moon; the mere list of them is sufficient to give us some idea of the extreme complications involved. A well-known astronomer has said that the mathematical consideration of the inequalities of the motions of the Moon may be likened to an infinite wall against which the most eminent mathematician may measure his mathematical height.

Mr. Tomkins.—I would like to remark that this class of paper is one of which we have not had great many. The first occasion on which a paper of the kind was introduced was by Dr. Mullick at one of our meetings. There was some hesitation about giving a paper of this class in our society of amateurs, and it was stated by some at the time that it would be clear over-head nine-tenths of the members. The Council decided at the time to put the paper before the meeting on the ground that though some of our members are beginners, it is not good to always live on milk and a little strong meat now and then is a useful tonic. We have had some strong meat this evening and the paper is difficult to discuss because we cannot swallow it like a bolus. We shall see it in print and have time then to think it over and grasp its details. Such papers as these are valuable to the Society, and I for one hope we shall have several more of them.

Mr. Raman.—Mr. Ridsdale's paper may be strong meat, but I think he succeeded in offering it to us in a peptonized form.

President.—I agree with Mr. Tomkins that this is not a paper to be merely discussed here ; it is one which ought to be studied in print to be understood and appreciated. It is such a difficult subject. I beg to convey to Mr. Ridsdale the thanks of the Society for the highly interesting paper which he has given us.

President.—I now call upon Mr. Raman to read his paper. (*Mr. Raman's paper.*)

President.—I may remark that critical observations of the Zodiacal light are not easy to make, and observations of the Zodiacal light opposite to the Sun are extremely few ; it is very seldom that one finds the sky clear enough to observe it, and in Calcutta there is little or no chance of any one observing it at all. It is only in the comparatively clear sky of a dry place like Bankura that such observation can be made. As to the chance of finding the Earth's shadow on the patch of light, I hardly think the conical shadow of the Earth would be seen. Unless the extension of the Zodiacal light is limited to a distance of under 200,000 miles from the Earth, I think there would be no visible difference of illumination in the centre of the patch of light.

Mr. Raman.—Quite possibly the greater part of the cloud forms a long tail behind the Earth, or perhaps, the cloud is self-luminous. Either these causes or the excessive faintness of the whole phenomenon should explain our failure to see the hole due to the Earth's shadow.

Mr. Simmons.—I would like to say that Mr. Raman's observations are useful, and this is the time of the year (January) in which an observation of the Zodiacal light could be made even in Calcutta. It is also one of the Astronomical phenomena which can be watched without a telescope.

President.—Our thanks are due to Mr. Raman for his observations, but I may say that this is a subject that few have taken up.

As the hour is late, I am afraid that we will have to postpone Capt. Urquhart's discussion for the next meeting.

The meeting was then adjourned.