



The Journal of the Astronomical Society of India.

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SESSION 1918-19.

[Nos. 1, 2 & 3.

Meeting of the Society.

THE Annual General Meeting of the Society was held on Tuesday, the 29th October 1918, at 5-15 P.M., at the Imperial Secretariat (Treasury) Buildings. Mr. H. G. Tomkins, C.I.E., F.R.A.S., the President of the Society, was in the Chair.

The President announced the death of Mr. R. J. Pocock, B.A., B.Sc., F.R.A.S., one of the Vice-Presidents of the Society and the Director of the Nizamiah Observatory.

The minutes of the proceedings of the last meeting of the members held on Tuesday, the 25th June 1918, were read and confirmed.

The following gentlemen were elected members of the Society:—

Frederick Louis Grill, B.A. (CANTAB.), I.C.S., Lansdowne, U. P.

Henry William Bunn Moreno, B.A., PH.D., Calcutta.

The following amendments in the Bye-laws of the Society were approved :—

(1) Bye-law No. 3—

- (a) *For* “ four Vice-Presidents ” in line 2 *substitute* “ six Vice-Presidents.”
 (b) Transfer the words “ one Treasurer ” from line 3 to line 4 after the word “ Sections.”

(2) Bye-law No. 6—

Delete this Bye-law and number Bye-laws 7 and 8 as 6 and 7 respectively.

(3) Bye-law No. 7 (to be numbered 6). *Add* at the end “ The Librarian and the Editor may also act as a member of the Council while acting as Librarian and Editor.”

(4) *Insert* the following Bye-law numbering it as 8 :—
 Early in May the members resident in Calcutta will be asked whether they are willing to serve on the Council of the Society during the ensuing year and a list of those who express their willingness to serve will be placed before the Council at their ordinary meeting in June.

(5) Bye-law No. 9—

Delete the word “ Treasurer.”

(6) Bye-law No. 10—

In line 10 *substitute* “ in one ” *for* one.

(7) Bye-law No. 13. *For* the word “ envelope ” at the end *substitute* the word “ list.”

(8) Bye-law No. 16. *Strike* from the end the words “ and a card announcing the day on which the ordinary meetings are held during the Session.”

(9) Bye-law No. 25. *For* the words “ the above 4 Bye-laws ” in lines 1 and 2 *substitute* “ Bye-laws 20 to 24.”

(10) Bye-law No. 35. From line 5 *strike out* the words “ at least as early as the previous ordinary meeting.”

(11) Bye-law No. 36. *For* “ five o'clock ” in line 1 *substitute* “ five-fifteen o'clock.”

(12) Bye-law No. 39. From lines 3 and 4 *strike out* the words “ in the month of October each year.”

(13) Bye-law No. 51—

- (a) In line 2 *insert* the words “ Council of the ” before the word “ Society ” and in line 3 *insert* the words “ of the Council ” after the word “ meetings.”
- (b) *Strike out* the clause at the end “ and shall also lay on the table a list of the names of those members who may be in arrears for sums due at the last Annual General Meeting together with the amount of the same.”

The Report of the Society for the Session 1917-18 and the accounts as drawn up by the Council was read by the Business Secretary, Mr. D. N. Dutt, M.A.

The following ladies and gentlemen were elected as office bearers and members of the Council :—

<i>President</i>	...	1. DR. T. ROYDS, D.Sc., F.R.A.S.
<i>Vice-Presidents</i>	...	1. H. H. THE MAHARAJ RANA BAHADUR SIR BHAWANI SING, K.C.S.I., F.R.A.S. 2. J. EVERSLED, Esq., F.R.S., F.R.A.S. 3. COL. LENOX CONYNGHAM, R.E., F.R.A.S. 4. R. J. POCOCK, Esq., B.A., B.Sc., F.R.A.S. 5. H. G. TOMKINS, Esq., C.I.E., F.R.A.S.
<i>Secretaries</i>	...	1. P. C. BOSE, Esq. (Scientific). 2. D. N. DUTT, Esq., M.A. (Business).
<i>Members</i>	...	1. MRS. PERCY BROWN. 2. J. C. DUTT, Esq., M.A., B.L. 3. K. EULER, Esq. 4. S. C. GHOSH, Esq., M.A. 5. P. N. MUKHERJI, Esq., M.A., F.R.E.S. 6. DR. D. N. MULLICK, B.A., D.Sc., F.R.S.E. 7. E. S. OLPAD, Esq. 8. G. PEACE, Esq. 9. MRS. TOMKINS. 10. A. T. WESTON, Esq., M.Sc., (VICT.), A.M.I.C.E.

The following appointments have been made by the Council under Bye-Law 4 and need no election by the Members :—

<i>Director of Observations...</i>	H. G. TOMKINS, Esq., C.I.E., F.R.A.S.
<i>Instrumental Director ...</i>	S. WOODHOUSE, Esq.
<i>Librarian ...</i>	S. C. GHOSE, Esq., M.A.
<i>Editor ...</i>	A. T. WESTON, Esq., M.Sc. (VICT.), A.M.I.C.E.
<i>Treasurer ...</i>	RAI BAHADUR U. L. BANERJEE, M.A.

Report of the Society for 1917-18.

The Council beg to submit the following report on the progress and operations of the Astronomical Society of India for the Session 1917-18 which ended on the 30th September 1918.

2. *Members.*—The Society has completed the eighth year of its existence. It entered into its eighth year with 104 members and closed it with 111. There were 11 new admissions, while 3 resigned and 1 died.

3. *Meetings.*—The Council held eight ordinary meetings for conducting the business of the Society.

The Annual General Meeting of the Society for electing the office bearers for the Session 1917-18 was held on the 9th November 1917. There were also eight ordinary meetings of the members at which papers were read and discussed. A list of these papers is given in the Appendix to this Report. Light refreshments were served to the members before the commencement of these meetings, and the Council desire to place on record their acknowledgments to Mrs. Tomkins and to Mrs. Royds for their supplying these refreshments at their own cost and for the trouble taken by them in providing them.

4. *Public Lectures.*—For the benefit of the general public one public lecture of a popular kind was delivered free at the Town Hall, Calcutta, on the 14th January 1918. The subject was the Sun, the lecturer was Dr. T. Royds, D.Sc., F.R.A.S., and the Chair was graciously taken by His Excellency the Governor of Bengal. The best thanks of the Society are due to the lecturer and to the Chairman for the trouble taken by them and also to the Chairman of the Corporation of Calcutta for having lent the Town Hall free of charge for the purpose of the lecture.

5. *Journal of the Society.*—There were three quarterly issues of the Journal during this Session covering the period from October 1917 to June 1918. The size of the Journal has been enlarged and explanatory notes are now given in the Monthly Notices to enable new members to make use of the information contained in them.

6. *Connection with other Societies, etc.*—The following Societies and Observatories exchange their publications with those of the Society :—

1. The Royal Astronomical Society.
2. The British Astronomical Association.
3. The Royal Astronomical Society of Canada.
4. The South Africa Association for the Cultivation of Science.
5. The Astronomical Society of Barcelona.
6. The Astronomer Royal, Greenwich.
7. The Indian Observatory, Alipur.
8. The Kodaikanal Observatory.
9. The Astronomical Society of Leeds.
10. The Nizamiah Observatory, Hyderabad.
11. The Oxford University Observatory.
12. The Saraswat Chatuspathi, Calcutta.
13. The Indian Association for the Cultivation of Science, Calcutta.
14. The Vatican Observatory, Rome.
15. The Vernacular and Scientific Society, Allahabad.

The acknowledgments of the Society are due to the above Societies and Observatories for this exchange.

The Journal of the Society (including the Monthly Notices) continues to be subscribed to by the following educational institutions in India :—

1. The Hooghly College, Chinsura.
2. The Krishnagar College.
3. The Muir Central College, Allahabad.
4. The Elphinstone College, Bombay.

The Journal and the Monthly Notices are also supplied free to the Imperial Library, Calcutta.

7. *Government Grant.*—The Council have much pleasure in announcing that the grant of Rs. 600 made to the funds of the Society by the Government of Bengal in 1917 was repeated in the current year. The receipt of this grant has been gratefully acknowledged.

8. *Library.*—The number of books other than Journals in the Library is now 262. The Council acknowledge with thanks the receipt from their Assistant Librarian, as a

present, of a copy of an *Encyclopædia of Astronomy* by Messrs. Airy, Barlow, Herschell and Kater published in 1845. The Library is kept open on Tuesdays and Thursdays every week (not being Government holidays) from 5 to 7 P.M.

9. *Quarters.*—The business of the Society continues with the kind permission of the Controller of Currency to be conducted in a room of the Imperial Secretariat (Treasury) Buildings, which is used during office hours for office purposes, and the Library continues to be housed in another room in the same buildings placed at the disposal of the Society by the Controller of Currency. The gratitude of the Society is due to the Controller for his kindness.

10. *Association of educational institutions in India with the Society.*—Below is a list of the educational institutions in India which have joined the Society as Associates :—

1. East Indian Railway High School, Oakgrove, Jharipani, U. P.
2. Gujarat College, Ahmedabad.
3. Sanskrit College, Calcutta.
4. London Missionary Society Teacher Training College, Bhawanipore, Calcutta.
5. Bangabasi College, Calcutta.
6. Ravenshaw College, Cuttack.
7. Brojo Mohan College, Barisal.
8. Mahomedan Anglo-Oriental College, Aligarh.
9. St. Vincent's High School, Poona.
10. Presidency College, Calcutta.

11. *Society's Medal.*—The Council have to record with disappointment that, as in the previous session, the medal offered by the Society this session for the best essay on any of the constellations by the students of the Associate Colleges and Schools was not competed for. It is intended to renew the competition again and to throw it open to all persons connected with educational institutions.

12. *Telescope.*—The 8½" reflecting telescope, for the purchase of which negotiations were going on in the preceding session, has been installed on the roof of the Imperial Secretariat (Treasury) Buildings. The best thanks of the Society are due to Col. Lenox Conyngham, R.E., F.R.A.S., one of their Vice-Presidents, for having helped them in making this purchase and for his contribution of Rs. 50 towards the cost. This telescope is now available for the use of the members. It is also hoped to arrange for a programme of work with this telescope during the coming session and for a number of visitors' evenings.

13. *Observational Works.*—Constellations were distributed to the members and arrangements were being made for a thorough and systematic search for new stars in the Milky Way when the Nova Aquila burst upon us on the evening of the 8th June. The Nova was seen by a number of members of the Society, but by none so early as Mrs. Murray, who saw it on the 10th and sent a telegram to the Society. She has also sent a number of very interesting notes on the variation of the Nova. Mr. Evershed, Director of the Kodaikanal Observatory and a Vice-President of the Society, has sent a very beautifully mounted spectographic transparency, and Mr. Pocock, Director of the Nizamiah Observatory and another Vice-President of the Society, has sent a nice photographic print of the Nova. The best thanks of the Society are due to these contributors.

14. *Report of the Sky Search Section.*—Very little is to be said of last session's search for new objects in the sky. Fourteen constellations were distributed to the members and arrangements were being made for a thorough and systematic search for new stars in the Milky Way when without any warning the Nova Aquila burst upon us on the evening of the 8th of June, when the the Constellation Aquila was just above the horizon in the evening. The Nova was seen by a lot of amateurs and members of the Society, but by none so early as Mrs. Murray, a very keen amateur astronomer, who saw it on the 10th and sent a telegram to the Society. At my request that lady has sent me a number of very interesting notes on the variation of the Nova. Mr. Evershed, Director of Kodaikanal Observatory, has sent me a very beautifully mounted spectographic transparency, and Mr. Pocock, Director of the Nizamiah Observatory, has sent me a nice photographic print of the Nova.

That many observers could not heartily join the work, was largely due to the rains and war that was raging in all its fury then. Now that the rains are over and the war is at an end I hope that some progress might be done this year.

15. *Pamphlet on Elementary Astronomy.*—For the use of beginners in Astronomy, a pamphlet named First Steps in Astronomy was very kindly written for the Society this session by its President, Mr. H. G. Tomkins, C.I.E., F.R.A.S. The pamphlet was printed at the cost of the Society and one copy of it was supplied to every member free. The price to members for extra copies and to non-members is Re. 1 per copy. A number of copies have been sold to members and non-members.

16. *Accounts.*—The financial position of this Society was satisfactory during the year under report. The year opened with a cash balance of Rs. 1,876-6-5. In spite of special expenditure of Rs. 825-4-9 for purchasing a 8½" reflecting telescope for the Society and erecting an Observatory for housing it, as well as of Rs. 216 for publishing a book "First Steps in Astronomy" kindly presented to the Society by its President, Mr. H. G. Tomkins, C.I.E., F.R.A.S., the cash balance stood at Rs. 1,183-12-5 on 30th September 1918. In addition to this cash balance the Society holds Government Promissory Notes and Calcutta Port Trust Debentures amounting to Rs. 1,200. The assets of the Society over liabilities on 30th September 1918 stood at Rs. 3,413-15-8 against Rs. 2,121-1-9 in the previous year. The accounts for the year are shown in the accompanying statements.

*List of papers read and discussed at the Monthly Meetings
of the Members held in 1917-18.*

<i>Papers.</i>	<i>Author.</i>
1. Observation of the occultation of a sixth magnitude star by Venus on 30th October 1917.	R. J. POOCOCK, B.A., B.Sc., F.R.A.S.
2. A letter on the same subject ...	H. H. the Maharaj Rana of Jhalawar, F.R.A.S.
3. Observations of occultations of stars by the Moon made at the Nizamiah Observatory, Hyderabad in 1916.	R. J. POOCOCK, B.A., B.Sc., F.R.A.S.
4. The Testing of Parabolic Mirrors	H. G. TOMKINS, C.I.E., F.R.A.S.
5. The relation between solar prominences and dark markings on the Sun's disc.	T. ROYDS, D.Sc., F.R.A.S.
6. A note on certain problems suggested by observations of Venus.	W. J. SIMMONS, F.R.A.S.
7. Recent work on solar displacements.	T. ROYDS, D.Sc., F.R.A.S.
8. A digest of a pamphlet on the colours of the stars and planets by Professor W. H. Pickering.	MISS B. M. COOPER.
9. On a certain relation between the elements of plane's and satellites.	R. J. POOCOCK, B.A., B.Sc., F.R.A.S.
10. A note on star trails ...	MAJOR A. M. URQUHART, R.A.
11. Kepler's Three Laws of Motion ...	A. T. WESTON, M.Sc. (VICT.), A.M.I.C.E.
12. Notes on the grinding of a 24" Mirror.	H. G. TOMKINS, C.I.E., F.R.A.S.
13. Dynamics of the Sidereal Universe.	REV. A. C. RIDSDALE, M.A., F.R.A.S., F.R.A.C., etc.
14. The new star in Aquila ...	P. C. BOSE.
15. A paper on Novæ ...	P. N. MUKHERJI, M.A., F.R.E.S.