

THE  
ROYAL ASTRONOMICAL SOCIETY  
OF  
CANADA

SELECTED PAPERS AND PROCEEDINGS

1904

EDITED BY C. A. CHANT.

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was re-discovered by St. Javelle at Nice on Nov. 30; Giacobini at Nice discovered another on Dec. 17; and I see by the papers that Borrelley of Marseilles has discovered still another.

#### THE YEAR'S WORK OF THE SOCIETY.

During the year there were twenty-four meetings of the Society and the subjects discussed ranged over a wide field.

One of the features of the work was the course of four public lectures given during the month of March. Professor DeLury delivered three lectures on "The Rise and Progress of Physical Astronomy", and Prof. John Watson of Queen's University gave an able paper on "The Relation of Philosophy to Ancient and Modern Theories of Cosmogony". An extended digest of Dr. Watson's lecture will be found in our Transactions.

The paper by Dr. C. I. Kelly, of the Hamilton Association, on "Electricity and Magnetism" was unfortunately accompanied by an exceptionally heavy snow-storm; but the paper was heard with great interest, and the experiments shown in illustration were very suggestive and some of them very beautiful.

The simply-constructed sun-dial which Mr. J. E. Maybee exhibited and the paper he read were highly appreciated, and excited interest and inquiries beyond the Society.

Another enjoyable part of the work was the papers by Mr. D. J. Howell on Lunar Photography, and the exhibition on two evenings of exceptionally fine lantern slides which he had prepared from the latest plates made at the Paris and Yerkes Observatories. Mr. Howell contributes a short paper to the Transactions.

One of the largest meetings of the year was that of Oct. 4, on which occasion the two meteorites which fell at Shelburne on the evening of Aug. 13, were on exhibition. Prof. DeLury dwelt briefly on the astronomical aspect of these strange bodies, and Prof. T. L. Walker gave an excellent statement of the mineralogical side of the subject. The smaller meteorite,  $12\frac{1}{2}$  lbs. in weight, is still, I believe, in the possession of Mr. John Shields, by whose house it fell. The other specimen, 28 lbs. in weight, is now at the School of Mines, Kingston, where it has been the subject of a minute investigation by Dr. L. H. Borgström, who

furnishes us with a full account of it. In recognition of assistance rendered by our Society, the School of Mines has presented us with a full-size model of the meteorite. This model is on exhibition this evening.

Prof. Baker's lecture on the "Beginnings of Astronomy" was illustrated by numerous appropriate charts; and Mr. John A. Paterson treated the Society to a lucid "Chalk-talk" on some of the fundamental laws of astronomy.

In his paper on "Stellar Motions" Mr. A. F. Miller continued his treatment of a subject which he has made his own, and on which we would be glad to hear him again.

Another useful and very interesting paper was that by Miss Dent, giving brief biographies of our Honorary and Corresponding Fellows. The subject was too wide for proper treatment in one evening and we hope to have it continued in the near future.

The recently-advanced theory of the formation of the universe known as the Planetesimal Theory was explained by Prof. A. P. Coleman. In this hypothesis the requirements of geological time and stratification are met satisfactorily, and in many other respects the theory is quite as acceptable as the nebular hypothesis. A brief statement of the theory appears in the Transactions.

Another paper which led to some discussion was the review by the Secretary of Wallace's book, "Man's Place in the Universe". Mr. Collins has had interesting correspondence with the distinguished author, and in a brief paper presents his views on the subject.

A review of some of the latest results in astrophysical work was presented by Vice-president W. B. Musson, and a condensed account will be found in the Transactions.

Mr. J. Miller Barr, of St. Catharines, has communicated to the Society some very interesting observations of variable stars. Mr. Barr uses only an ordinary field-glass, but by skilfully choosing his stars he has secured some really important results. We congratulate him on his success, and we are glad to publish his work.

Mr. W. H. S. Monck, of Dublin, Ireland, has continued his

studies of meteorites, and we publish a paper by him in which he endeavors to show that there is a periodicity in their falls.

During the year we received some communications from Professor A. W. Bickerton, Christchurch, New Zealand, dealing with the theory of stellar impact, and we publish a short statement of the subject by him.

At the last meeting of the year your President gave the results of an investigation into the reflecting power of glass and some mirrors. This paper appears in the Transactions, and the editor of the *Astrophysical Journal* has expressed a desire to publish it in the next number.

But though our programmes have been interesting, the attendance at some of the meetings has not been as large as we would wish. This has been in part due to the loss of some of our most active and valued members by death or removal, and the inability of others, through advancing age, to attend the evening meetings. I would appeal to those present, who are not members, to unite with us and help on the cause we have at heart.

In conclusion I wish to refer to another matter of interest to us all. A proposition is on foot which has for its object to extend and popularise the study of astronomy at the University, and it is hoped that an arrangement between the University and the Royal Astronomical Society of Canada will be reached, by which the Society will be given accommodation for our meetings and our library, the University to receive in return the use of the library and of our instruments. Every one I have spoken to about the matter has expressed hearty approval of the proposal. At present fuller details cannot be given, but I venture to believe that an arrangement will be made which will be of great advantage to the Society, to the University and to the people generally.

## PAPERS AND LECTURES, 1904.

- Jan. 12.—Society's "At Home"—Retiring President's Address on "Astronomy and Physics of 1903."
- Jan. 19—"The Beginnings of Astronomy." Prof. Alfred Baker, M.A.
- Feb. 2—"Electricity and Magnetism" Dr. C. I. Kelly, Hamilton.
- Feb. 16—Astronomical Chalk Talk—Stars' Apparent Motion—Day and Night—Latitude and Longitude—Kepler's Laws—Bode's Law—Calculation of a Planet's Distance—Newton's Illustration of Law of Gravity from the Moon's Motion. John A. Paterson, M.A., K.C.
- Mar. 1—"The Sun-dial and its Lessons—How to Construct and Use One." J. E. Maybee, M.E.
- THREE LECTURES ON "THE RISE AND PROGRESS OF PHYSICAL ASTRONOMY" BY PROF. A. T. DE LURY, M.A.
- Mar. 15—I. "The Work of Newton."  
" 22—II. "The Sequel to Newton's Discoveries."  
" 29—III. "Speculations on the Evolution of Solar and Other Stellar Systems."
- March 18—"The Relation of Philosophy to Ancient and Modern Theories of Cosmogony." Prof. John Watson, M.A., LL.D., Kingston.
- April 5—"The Planetesimal Hypothesis." Prof. A. P. Coleman, Ph.D.
- April 19—"Stellar Motions." A. F. Miller.
- May 3—"Man's Place in the Universe,—a Review of Alfred Russell Wallace's Recent Book." J. R. Collins.
- May 17—"Solar Activity." Prof. Louis Léon, Mexico City, Mexico.
- May 31—"The Paris Lunar Photographs," with Lantern Slides from the latest Plates. D. J. Howell.
- June 14—"Some Late Results in Astrophysical Research." W. Balfour Musson.
- June 28—Evening at the Observatory.
- Sept. 20—Review of Summer's Work and General Discussion.
- Oct. 4—"The Shelburne Meteorites." Prof. A. T. DeLury ; Prof. T. L. Walker, Ph. D.
- Oct. 18—"Review of Some Recent Observations of the Surface Markings of Mars and other Planets." J. R. Collins,
- Nov. 1—"The Diffraction Spectrum" (with experiments.) C. A. Chant.
- Nov. 15—"Eclipses." Prof. DeLury.
- Nov. 29—"Biographical Sketches of our Honorary and Corresponding Fellows." Miss Elsie A. Dent.
- Dec. 13—"Recent Lunar Photography." D. J. Howell.
- Dec. 27—"Some Recent Experiments with Reflected Light." C. A. Chant.