

The annual meeting of the
 astronomical & Physical Society
 of Toronto held Jan 6 1898
 in the Technical School Building

Mr Arthur Harvey F.R.S.C. Vice President
 occupied the chair.

The minutes of the previous meeting
 were read and confirmed

The election of Officers was then
 proceeded with

Hon G W Ross LL.D. Minister of Education
 was elected Hon. President.

The minutes of the previous meeting
 were again referred to in connection
 with the Presidency. Some discussion
 ensued regarding the point at issue
 namely whether Mr Paterson's desire to
 retire in favour of Mr Harvey be acceded
 to. The recording Secretary stated that
 he had received a note from ~~Mr~~ Mr Paterson
 to the effect that he would not be present
 and ~~that~~ also that he was desirous
 of declining the Presidency for the
 ensuing year on the well known principle
 cited in these matters.

The chairman ruled further discussion
 not strictly in order. Election was
 then proceeded with and Mr Arthur
 Harvey F.R.S.C. duly elected
 President for 1898.

Mr E A Meredith and Mr R. F. Stupack
were elected vice presidents

Mr G. E. Lundström was elected
corresponding secretary

Mr J R Collins declined the nomination
as Treasurer and Mr Chas P Spaulding
was duly elected Treasurer of the
Society.

Mr W B Morrison was elected Librarian
Mr J G Hume was elected Photographer to
the Society.
Mr J Lindberg was elected Rec. Secy.

The following members were elected
members of the Council of the Society

Mr C A Chant S.A.
J R Collins
G G Pusey
A T Miller
Rev C A Short M.A.

The President then gave notice that
at the next regular meeting of the Society
he would move that the following
matter be referred to the Council of the
Society for immediate consideration
namely: -

Such amendment to the constitution
as will enable the Society to confer
the title of Fellow on certain of its
members.

M^r Lumsden gave notice that he would move at the next regular meeting of the Society that the question of ^{the} affiliation ^{of the society} be referred to the council for consideration.

M Lumsden then addressed the society briefly with reference to the work of the late President and moved that a committee be appointed to draw up a ^{suitable memorial} resolution ~~concerning the proposition~~ which the society had for the to be presented to M^r Peterson.

The President and the secretaries would form the committee.

The report of the committee on place of meeting was received. There were some hopes that the Y.M.C.A. building of the university might be obtained. A further report would be presented probably at the next meeting.

Observations were then reported.

M^r Pusey stated that he had noted during the past fortnight one case in which his prediction of spots from the appearance of pencils did not agree with results. He also reported his own spot observations generally.

A letter was read from M^r R. S. Muir of Belleville reporting an unusual observation of a misty rainbow between the sun and the zenith.

The report of Mr J Goddard was read as follows

Balance on Jan 1/97	294 23
Recd Gov Grant	200.00
Interest on deposit	8 17
Fees from members	84
	<hr/> 586.40

Payments	
Publication of	168 90
Sundry expenses	96 16
Balance on hand	321 34
	<hr/> 586.40

The report on motions was formally adopted.

The librarian reported exchanges and presents received, among the latter there being a copy of Observational Astronomy by Arthur New F.R.S to whom the special thanks of the Society were due.

A note was read from Mr R T Stupart announcing the observation of Winnecke's comet by Perrine on Jan 2nd. The comet was in R.A. 15^h 19^m and Dec 53° 58'

Mr Elliot read some notes on observations of Plato, as a part of work in the lunar section and headed in a sketch of that feature of the moon's surface.

A letter was read from
 Dr J J Wadsworth giving particulars
 of his observations and accompanied
 by a sketch of Ptolemy as his share
 of this special work in connection with
 lunar study

Mr J R Collins then read a
 short paper on the defects of in
 large telescopes and showing that
 the blurring of the image in reflectors
 was not so great as the same element
 in large refractors.

Mr Lebray then read a short
 paper on popularizing astronomy and
 pointing out how the funds for the
 erection of an observatory might be
 obtained

The meeting then adjourned to Jan 20
 or 21 or 22

Arthur Haenrich }
 President }
 J. H. ... }
 Secy }

The Astronomical and Physical Society of
Toronto

Extract from the Minutes of the Annual
Meeting of the Members
Held on Thursday the 20th day of January
1898.

Resolved that the cordial thanks of this
Society are due and are hereby tendered to
John Andrew Paterson Esq. M. A.
For indefatigable personal exertions on its
behalf for the careful attention with which
he whether as private member or officer
has watched over and safe-guarded its
best interests and especially for the
ability with which during the last two
years he has discharged the duties of
President This Society recognizes that
it owes its satisfactory position in a
large degree to ^{such} Mr. Paterson's exertions
attention and ability and hopes ^{Mr. Paterson} he will
long be spared and will continue to be
its warm friend and zealous supporter

Resolved that an engrossed copy of the
above Resolution be presented to Mr. Paterson
as a slight memento from his fellow members

Secretary

President.

The regular meeting of the
Astronomical & Physical Society
of Toronto held Jan 20th in
the Technical School building

The President Mr Arthur
Harvey F.R.S.C. occupied the
chair

The minutes of the previous
meeting were read and con-
firmed

The correspondence was read as
follows

From Mr David Brown of Port Elgin
asking for data concerning the minor
planets

From Mr E D Morgan of London
Eng. discussing the movement
for the unification of time.

From Mr Jos Wallace of Orillia
announcing the organization of an
Astronomical Society in that town,
and which would be affiliated
with this society.

From Mr Charles Clark of London
Ont, on matters of general interest;
and enclosing cheque for 5⁰⁰ to be
applied ~~to the society~~ towards the
local furthering of the society's aims
and objects. Mr Clark also ann-
ounced his readiness to subscribe
a much larger sum towards procuring

a popular observatory whenever
the subscription list for that
purpose should be opened.

At the previous meeting Mr. Hawley
had given notice that he would
move an amendment to the
constitution at the next regular
meeting. ~~Having~~ Mr. Hawley
then having read the text of the
motion from the chair

It was moved by Mr. John A.
Paterson, seconded by Mr. Lindsay

The motion was carried, the
amendment proposed to be dis-
cussed at the next meeting
of the ~~society~~ council of the
society.

Moved by The Honorary
Seconded by J. A. Atkinson

That an amendment to the by-laws be proposed

That the Council be asked to consider the propriety of passing a by-law or amending the Constitution of the Society, if necessary to provide for the recognition of the researches and observations of its members by conferring the title of Fellow of the Astronomical and Physical Society and the right to add to their names on the Society's rolls and elsewhere the letters F. under conditions such as the following.

1. To have attended the Society's meetings for 1 year, at the least ten meetings in each year.
2. To have attended the Society's meetings for at least ten meetings in one year and to have prepared and read a paper deemed worthy of printing in the Transactions by the editing Committee.
3. To have passed an examination by the Council.

having a sufficient knowledge of the principles of
Astronomy or Astrophysics to take part in the dis-
cussion thereof in similar Societies at home or
abroad. —

That the Council be requested to confer with the
Honorary President, who is the Minister of Education,
on the propriety of recognising in such way
the intelligent interest taken by members in
aiding the study of Astronomy both in the
Society and among the general public.

Such title to be borne only while the member
so distinguished remains attached to the Society
in good standing. —

The Librarian read his fortnightly report announcing presents and exchanges received since last meeting. The thanks of the Society were specially due to Mr. Andrew F. R. A. S., who presented to the Society a copy of his work on Observational Astronomy.

Mr. D. J. Howell read a report of the work done during the past few months in the arranging and cataloguing of the lantern slides of the Society.

The committee on a place suitable for holding the meetings of the Society reported progress.

Observations were then reported by Mr. Pursey & Mr. Elvins. Some discussion ensued regarding observations of the faculae on the disc of the sun and the President proposed that such members as could conveniently do so should make drawings of the faculae on all possible occasions in order possibly to determine when there is any thing like wave motion observable. Mr. Elvins said he would endeavour to sketch these appearances as seen in the telescope.

The President reported having been shown by Mr R T Stupart, ~~the~~ Director of the Toronto Observatory, the records made by the seismological instruments during a recent earthquake tremor; as these instruments had shortly before been placed in position and were of very great scientific value, the Secretary was requested to ask Mr Stupart to favour the Society whenever convenient to him with a description of the instruments and their use.

Mr Lindsay then read letters received from Prof Story-Maskelyne of Basset Down Eng. bearing upon the life work of Sir Nevil Maskelyne the printer of the Nautical Almanac. The information given was so complete as to permit of a sketch in considerable detail of the early computers of the Almanac. The sketch presented was taken as read.

Mr Merrishaw then read some notes on the work of Nicola Tesla the celebrated electrician. An interesting discussion followed on the subject of harnessing the direct energy from the sun and applying it to mechanical uses.

It was then announced that
 the next meeting would be
 held Feb'y. 3rd in the theatre
 of the Normal School when
 Mr. John A. Paterson M.A. the
 retiring President would read
 a paper on
 The astronomy of 1897 a popular
 review
 The meeting then adjourned
 Tho Lindsay
 Secy
 Confirmed
 E.A. Mendall
 Chairman

THE
 ASTRONOMICAL & PHYSICAL SOCIETY
 OF TORONTO

...OPEN MEETING...

*Members and Friends are Specially Invited to attend an Open Meeting of
 the above Society to be held in the*

**THEATRE OF THE NORMAL SCHOOL
 Thursday, February 3rd, at 8 p.m.**

*Mr. JOHN A. PATERSON, M.A., the retiring President, will address
 the meeting on "The Astronomy of 1897—a popular review."*

ARTHUR HARVEY, F.R.S.C., WILL OCCUPY THE CHAIR

THOS. LINDSAY, REG. SECRETARY

✓

An open meeting of the
Astronomical & Physical
Society of Toronto held in
the theatre of the Normal
School Feb 2 1898

The President Mr Arthur Hawley
occupied the chair.

On calling the meeting to order
the President ruled that the
minutes of the previous meeting
should be taken as read and
the time given to the reading of
the address on the astronomy of 1897
by the retiring President.

The President then introduced
Mr Paterson, referring to the custom
of reviewing the work of the
previous year at the opening
meeting.

Mr Paterson then read the address
which was thoroughly appreciated by
all present.

At the conclusion the President
addressed the meeting and thanking Mr
Paterson for the interesting address just
read called upon the secretary to
read the text of the illuminated
address testimonial presented by
the society to Mr Paterson; after which

the exposed copy was handed to Mr Paterson by Mr A Elvins who expressed the very great pleasure he experienced in so doing.

Mr Paterson replied thanking the Society for this mark of its favour and the meeting was declared adjourned.

After adjournment the members and friends present inspected the portfolios of linear photographs presented by the Paris Observator to the Society.

The Secretary
Lee Sedg

(Confirmed)
A. Maudslayi
Chairman

3rd

The regular meeting of the
Astronomical & Physical Society
of Toronto held in the Technical
School Building July 17 1898

The Vice President J. E. A. Merrick
Esq. occupied the chair

The minutes of the two previous
meetings were read and confirmed.

Communications were read as
follows

From the Hon. Secretary of the Royal
Society of Canada giving notice
of the meeting of the Society on
May 25th at Ottawa.

From Mr. G. F. Rogers B.A. Cor Secretary
of the Ontario Astronomical & Physical
Society asking information regarding
text books and periodicals

From M. Triboulet of Algiers, Algeria,
a paper on a new form of telescope. This
addressed to the President had been
translated by him and handed to
the Secretary

Some discussion arising in regard to
the work of the committee in place of
meeting. Mr. Paterson stated that a
meeting of the committee would be held
shortly and a report presented to
the Society ~~at the earliest possible~~ as

soon as a definite plan should be decided upon.

M^r & S. Pursey made some drawings on the black board in illustration of his sun spot observations.

From M^r B. B. Blake were also received two drawings and a brief account of the spots seen on Feb'y 11 & 16. These spots were the same as noted by M^r Pursey. M^r Hunsten called attention to the marked brightness of the feature of the lunar surface, Aristarchus, which had been quite observable by the unaided eye.

The Librarian presented his report of exchanges and presents received. Among the latter was a volume of Recent and coming eclipses by Sir Norman Lockyer, presented by M^r D. J. Howell to whom the thanks of the Society were due.

In reply to a question M^r Howell stated that he was giving his attention to the methods adopted by recent observers in photographing the corona and would present a paper on the subject at an early date.

M^r Linday then read the translation of M^r Troubat's paper, which dealt with the possibility of applying very great magnifying power to a small objective.

Mr Collins and Mr Elwin discussed the paper, both being of the opinion that the author was quite in error as to the result of his method of construction.

The chairman ^{said} stated that no doubt Mr Hawley had replied to the author and acknowledged the receipt of the paper. This much was of course due him.

Mr Paterson referred to a question which had recently been asked him regarding the apparent size of the sun, subjectively. Some discussion followed from which it appeared that different people gave widely different comparisons when speaking of the sun in connection with any terrestrial object.

Before adjournment Dr Hendrick addressed the meeting briefly, acknowledging thanks to the society for having given credit him to the position of Vice President. He had not had an opportunity to do so before his thanks.

The meeting then adjourned

Arthur Hawley
Presdt

St. Monday
his Secy

4

The regular meeting of the
Astronomical & Physical Society
of Toronto held March 3rd 1898
in the Technical School Bldg.

The President Mr Arthur Haury
occupied the chair

The minutes of the previous
meeting were read and con-
firmed.

Letters were read as follows:

From Mr G. Charles Clark, London Ont,
renewing his offer to subscribe
towards a popular observatory

From Mr David Brown, of Port
Elgin, giving particulars of
some naked observations

Capt W N Greenwood of Manchester
England forwarded a press
cutting reporting a lecture which
he had given at Manchester on
the unification of time.

Capt Greenwood was nominated
for corresponding membership
by Mr Hummer and Mr Hindley

Mr Paterson reported his interview
with the authorities regarding the
J.M.C. a building as a place of

meeting. A final decision had not yet been reached. The President reported having had an interview with Rev Dr Burwash regarding a room in Victoria College. A small committee was appointed to meet the Chancellor on Monday following to discuss the matter fully.

For Mr Spaulding, Mr Paterson reported that the School of Pharmacy Building might be had for the purpose of a meeting place.

Observations were reported by several members.

The perihelion of Feb 25th had been well observed. Mr Ellis handed in a sketch showing the of the phenomenon, as it appeared about 8 o'clock.

Attention was called to the very favorable position of Jupiter for observation, the planet now nearing opposition.

Mr Pursey made some diagrams of the solar disc showing the focal and sun spots.

Some newspaper cuttings were read which were thought to be

very extravagant. One reported a successful attempt at the manufacture of gold by chemical processes; the other had been written by Garnet P. Servist announcing the discovery of a body in the heavens outside the moon's orbit and revolving about the Earth.

After some general discussion a short paper by Mr Geo. Moore, of Surrey, England, and communicated by Mr Craig was read. This was a description of the Washington Observatory. Mr R. T. Stupart who was present made some remarks in reference to the mechanical contrivances employed in the motion of the floor of the dome.

The President reminded Mr Stupart of the promised paper on seismic disturbances and on magnetism which he had kindly promised to prepare for the Society. Mr Stupart stated that at the meeting of March 31st he would be pleased to present the paper on Seismology. It was then arranged that at the meeting of March 17 Mr Howell would read a paper on Astronomical Photography.

The meeting then adjourned

Arthur Howell
President

Geo. Lundberg
Secy

5

The regular meeting of the
Astronomical & Physical
Society of Toronto held in
the Technical School building
March 19th 1898

The President Mr Arthur Hawley F.R.S.C.
occupied the chair.

The minutes of the previous
meeting were read and confirmed

Capt W Nelson Greenwood
of Lancaster England was
duly elected a corresponding
member of the Society

Letters were read from Mr H.E.S.
Asbury of Leaford Ont, announcing
that a Society had been formed at
that place;

From Capt Greenwood covering the
transmission of a report of a
lecture delivered by him on
the unification of Time

From Mr J.H. Shearman of Brantford
outlining work proposed to be
done in photographing the corona.

From M. L. Libert of Haare France
and from Mr D.E. Hodder of Alta
Iowa, both in the same subject,
Observations of the variable star
Mira in Cetus

From Mr Harrison of Kenne
describing a meteor seen by him

Under the head of new business Mr. Lundeen called the attention of the members to an offer made by the editors of the Home Journal to publish astronomical notes monthly, of the same name contributed by members of the society.

Observations of aurorae were reported by several members. The aurora of Mar 14th had been widely observed. Mr. Meredith reported a very fine display seen from Sarnia.

Mr. Pursey reported a paucity of sun spots and the President remarked the non coincidence of spots and aurorae.

The President described the results reached by a French astronomer in photographing nebulae with a large lens of short focus. It was claimed that much greater detail was shown than in ordinary photographs taken in the great telescopes.

Under the head of notes and queries Mr. Lindsay called stated that he would be glad to assist know what is the cause of the phenomenon everywhere observed that the direction of the plumb line is normal to the tangent at the earth's surface.

After some general discussion
 Mr D Stewart was called
 upon to exhibit the lantern
 slides of the society.

The remainder of the evening
 was spent in a discussion of
 several of these, principally the
 photographs of the solar corona
 taken during recent eclipses.

It was announced that at
 the next meeting Mr R Thapart
 would read a paper on seis-
 mological observations at
 Linnik observatory.

The meeting then adjourned.

Arthur Harnett }
 Presd- }
 The Lindsay }
 Secy }

President

Mr. Harvey Mr. Purdy -

Paterson

Allen Mrs. J. Collins

Short - Short

Lundeen

Mason

" Spaulding

Moved by Mr. Harvey that following apts.

be paid -

\$12⁵⁰ of Mr. Lundeen - carried

Engraving address to Mr. Paterson - carried

Balance \$180⁰⁰ printing report - to be

looked into by the President & Room

Mr. Spaulding reported could get rooms at School of Pharmacy for about \$40⁰⁰ per year - Lecture room & room for library

Mr. J. G. see Mr. Nelson, Mr. G. Hall

to see Mr. Paterson



6
 The regular meeting of the
 Astronomical & Physical Society
 of Toronto held March 31st /98
 in the Technical School Building

The President Mr Arthur Harvey
 F.R.S.C occupied the chair.

The minutes of the previous
 meeting were read and confirmed

Mr Robt Wallace 39 Buchanan St
 Toronto was duly elected an
 active member of the Society

Rev Mr Norman Russell was duly
 elected a corresponding member
 of the Society. Mr Russell's address
 would be some point in India
 which would be communicated
 later.

Correspondence was read as follows,
 from Mr A. Thompson of Orillia asking
 information regarding periodicals re to
 this Mr Howard had replied.

From Dr J. Wadsworth of Simcoe announ-
 cing that he would shortly resume
 telescopic work.

From Mr H. E. S. Osby of Seaford
 addressed to Mr Craig and reporting
 work done in the formation of a branch Society
 in Seaford

The Librarian reported receipt of exchanges and presents. Among these was a set of the Transactions of the Yale College Observatory.

The report of the Council which had met to consider & consider the question of a place of meeting was presented by Mr. Paterson.

It was recommended by the Council, which was unanimous on the point that the offer of the Canadian Institute be accepted.

The President put the question to the meeting and the recommendation of the Council was formally sustained.

Immediate action in the matter of removal was not ordered. The President stated that it would take some little time to put one of the rooms in order which the Canadian Institute had offered. The date of removal would be announced at a future meeting.

Reports of observations were received from several members. Mr. Pursey and Mr. Elvins discussed the question of maxima and minima in relation to sun spot frequency.

The President had observed Venus in the evening sky, though the planet was still ^{rather} close to the sun. Mr. Lindsay had made observations of Jupiter with



Toronto, 31st March, 1898.

Dear Mr. Paterson,

I regret that a severe neuralgic attack will prevent me from attending the meeting to-night. I am sorry to miss Mr. Stupart's paper, but fear I must.

As instructed, I made enquiries of the Canadian Institute Council as to rooms in their building. I am just informed by the President that the Society can have the use of the Board or Council Room, on the ground floor West of the entrance, for its meetings and the use of the room on the North side at the farther end of the entrance-hall, for its books. At present, the latter room is a sort of a store-room and not very tidy, but could be put in order for the books, of which it already holds a number, the property of the Institute. The Librarian could have a key to the room which could be open on nights of meeting and otherwise before six o'clock, the janitor having a key. The Council Room will seat fifty or more people. It has a large black-board and connection for an electric lantern. If the focus of the lantern belonging to the Institute is not too long for the room, this instrument may be used if confided to some member who knows how to manipulate such a lantern.

The President said the Institute would not ask any compensation as rent, but thought that the janitor should receive one dollar per month, with which he would be satisfied, and that the use of gas or electricity should be paid for by the hour, a sum in itself that would be small. These, I believe, are the conditions upon which other Societies meet at the Institute. While adding that the arrangement should be regarded as subject to the approval of the new Council, shortly to be elected, Dr. McCallum said the advent of the Society would be welcomed as the Institute wishes to work with all other Societies and that he had no doubt future satisfactory arrangements could always be made, the present one to be understood as lasting for a year if desired.

Please hand the enclosed to Mr. Lindsay and believe me

Yours truly,

John A. Paterson Esq., M.A., etc.,

Technical School Building, Toronto.

a which Gregorian, had seen two belts on the planet fairly well defined.

The President read some notes on the magnetic storm of March 15 1868 and showing a connection between this storm and the previous records as brought out in a paper read last year. A translation of the article published in the *Tramontain* of the French Academy regarding photographing the nebulae and which had been briefly referred to at the previous meeting was also read by the president.

The paper for the evening was then read by M^r R. F. Shepard on "Seismological observations at the Toronto Observatory". This proved of special interest and ~~excited~~ occasioned an interesting discussion, many points being explained by M^r Shepard regarding the theory of seismic disturbances and the practical use of the instruments employed in observation.

It was announced that at the meeting of April 26 Prof A. Baker M.A. would deliver a lecture in the physical room of the University of Toronto. The subject would be

announced at the next meeting
 the meeting then adjourned
 till April 14th or 20 or 21

The Ladies
 Rules

Arthur Haeney?
 Presid. }
 3

The regular meeting of the
Astronomical & Physical Society
of Toronto, held April 14th 1898
in the Technical School Building

The President Mr Arthur Harvey
F.R.S.C. occupied the chair

The minutes of the previous meeting
were read and confirmed.

Correspondence was read as follows:

From the secretary of the Seaforth
Astronomical Club; from the secretary
of Yale College Observatory and from
Mr J.S.N. Shierman of Brantford

Mr Shierman's letter contained a
brief account of observational work
carried on by him at Brantford and
Woodstock

The presents received since the
last meeting were laid on the table.
Among these was the first volume
of a collection of lunar photographs
by Herr Faure of Landstuhl, Prussia,
and a volume of drawings of Jupiter
and Mars by Herr Krüger of Trieste,
Austria. These were much admired
by the members present. The special
thanks of the Society were due to the
donors.

Observations were reported by several members:

Mr Geo Chamberlain made a sketch of the lunar craters Reinhold and Hansberg, with a small crater between them. This last had been referred to by some observers as being difficult to observe. It had however been well seen in Mr Chamberlain's 10 inch reflector.

Mr Lindsay reported having observed the occultation of Jupiter's first satellite on the evening of April 8th. In a two inch telescope the satellite when at a distance from the planet was merely a star point. It had been interesting to note the effect of the phenomenon of irradiation when the satellite was just upon the ~~the~~ limb of Jupiter and about to disappear. It then had the appearance of a round head of light attached to the planet.

Mr G. G. Pursey presented his report of sun spot observations with Diapant for the past three months.

Some discussion arose regarding the visibility of the zodiacal light in this latitude. Mr Chamberlain had quite recently observed the phenomenon on a clear evening in the north east part of the city. He stated that it was so marked as to be quite noticeable to other observers who saw it.

unexpectedly. Mr. Elvins remarked that he had never successfully observed the zodiacal light in Toronto. ^{and electric light was} Discussion arose regarding the recently announced opinion that the so-called doubling of the canals on the planet Mars was due to errors in focussing the telescope. It had been stated by several English observers that by racking the eye piece ~~in~~ within or without the focus all the phenomena that have occasioned so much dispute could be produced. Mr. Lindsay stated that he had repeated these ~~same~~ experiments using a white disc of paper with lines drawn upon ~~there~~ it and placed at about 100 yards from the telescope. In considering the case of Mars however two difficulties arose, how was it possible that all the observers had their telescopes unadjusted, and if any one had would he not be immediately aware of it. The fact remained nevertheless that the doubling was held by several authorities to be due to instrumental errors.

Mr. J. R. Collins read some ^{notes} extracts from the Astronomical Journal ~~and~~ ^{which} ~~was~~ ^{intended} ~~to~~ ^{be} ~~an~~ ^{an} illustration of the discussion ~~just~~ ^{was} ~~now~~ ^{under} ~~in~~ ^{discussion} in relation ~~to~~ ^{the} ~~optical~~ ^{aberration} in large telescopes. In review of Johnstone Stoney's theory regarding atmospheric ~~of the planets~~

Mr. Elvin then read a short paper ~~abstracting~~ describing an experiment he had devised to show that ^{under certain conditions} yellow and blue light when mixed made ~~an~~ green light. The statement to the contrary was found in all the text books on Chromatics. The experiment however appeared conclusive and could be very simply performed.

It was then announced that at the next meeting of the Society would be an open meeting to be held in the Physical room of University College and that Prof Alfred Baker M.A. had kindly consented to deliver a lecture on the nebular hypothesis.

The meeting then adjourned till April 26th at 8 o'clock

John Lindsay
Secy.

Arthur Hailey
Pres. 2

THE
ASTRONOMICAL & PHYSICAL SOCIETY
OF TORONTO

...OPEN MEETING...



*Members and Friends are specially invited to attend an Open Meeting of
the above Society to be held in the*

PHYSICAL ROOM OF UNIVERSITY COLLEGE.

Tuesday, April 26th, at 8 p.m.

*PROFESSOR ALFRED BAKER, M.A., will address the meeting on
"The Nebular Hypothesis."*

THOS. LINDSAY, REG. SECRETARY.

The regular meeting of the
Astronomical & Physical Society
was held April 26th in the
Physical room of University
College

The President, Mr. Arthur Hawley F.R.S.C.
occupied the chair.

This was an open meeting to which
friends of the Society had been
invited. The audience was large.

~~The President announced that~~
The minutes of the previous meeting
were read and confirmed.

The corresponding Secretary read a
letter received from Dr. J. J. Wadsworth
of Simons giving details of observations
made by him principally of the
planet Neptune

Observations were briefly reported
by the President and Mr. Pursey.
Mr. R. F. Stupart stated that there
had been some noticeable ^{earth} tremors
recorded by the seismological
instruments at the observatory on the
preceding Friday. It was thought the
disturbance originated in California

The President announced several papers
for presentation during the summer

Office of WHITAKER'S ALMANACK,
12, WARWICK LANE, PATERNOSTER ROW,
LONDON, E.C. 12 April 1898

Dear Sir,

I very much regret your disappointment. The summary was omitted on account of its redundancy as all the information therein given was repeated in the Calendar page in a different form.

But your letter, with very many others, will largely influence me next year when considering the question of reinserting the article.

I enclose a prospectus of a new work.

Yours faithfully
The Editor

G. E. Hummer by F. R. G. S.

and then called upon Prof Alfred Baker
M.A. to deliver a lecture on the
Nebular Hypothesis.

Prof Baker had kindly consented
to deliver this lecture as one of the
series which has been given before
the Society in University College

The hypothesis as ~~soon~~ given by Laplace
was lucidly sketched, Prof Baker stating
that it was his object to ~~make~~ ^{lay out} the
subject in a popular way. The history of
the hypothesis, the objections that have
been urged against it, the many points
in its favour, the recent work of Darwin
and See in the investigation of double
star evolution, were all in turn referred to

At the conclusion of the lecture Mr John A. Paterson
M.A. and Mr J. Phillips ~~present~~ moved
the thanks of the meeting to Prof Baker

In presenting the thanks of the meeting to the
lecturer the President added his own
heartly appreciation of the lecture

Prof Baker responded assuring the
society that it had given him much pleasure
to address them on this subject
The meeting then adjourned till May 10th

Arthur Faenney. The Landis
Pres^{ts} - - - Rec Sec

The regular meeting of the
Astronomical & Physical Society
of Toronto held May 10th 1898
in the Technical School Bldg.

The President M^r Arthur Hawry F.R.S.C.
occupied the chair

The minutes of the previous meeting
were read and confirmed

Letters were read as follows:

From the Editor of Whitaker's Almanac
in reference to the publication of predictions
of phenomena

From the Librarian of the U.S. Naval
Observatory asking for copies of
early volumes of the Society's
Transactions

From Miss Mary Proctor of New York
asking for a copy of verses written
by Mrs. Manley of Meaford on
"The Midnight Sky"

From M^r A. F. Humber M.A. of Barrie
calling attention to an account of
an observation of the November
meteors of 1834 in Samuel Thompson's
Reminiscences of Canadian Pioneers

Also an interesting letter from M^r
W. F. Denning of Bristol Eng. referring
to Dr Meredith's paper on the November
meteors of 1832. M^r Denning pointed
out that what Dr Meredith saw was
most probably a display of the
Andromedes, not the Leonids and

if so then the notes were specially valuable as ~~perhaps~~ supplying a missing link in the chain of Biela's showings. Mr Denning advised searching the newspaper files of that period for corroborative reports.

Mr Lumsden had communicated the contents of Mr Denning's letter to Dr Meredith who was engaged in looking up the publications of the time.

Under the head of New Business Mr Fletcher addressed the meeting briefly on the subject of giving lectures of quite a popular character to ladies who would be interested and who would have it quite within their power to inculcate in the minds of young persons a love for astronomy and kindred subjects.

Mr Fletcher's remarks occasioned an interesting discussion in which several members joined.

On motion it was finally decided to bring the subject of giving popular lectures, before the Council, with a view to action.

The President then announced that as a preliminary to work of this kind he would be glad to meet the ladies with whom Mr Fletcher was especially associated, and others who would come, at his house on any afternoon that

might be arranged, for telescopic observations of the sun, and possibly some discussion on phenomena observed.

Reports of observations were then received from Mr. Pursey, the President and others.

The President called attention to an article in the May "Century" on the X rays which was of special interest.

Mr. Lumsden then read extracts from a paper on Phenomena to be observed during the year.

Two occurrences he wished the members to specially observe; the eclipse of Jupiter's 3rd satellite on May 16 and the close approach of Venus to the moon on May 22nd.

After some further discussion the meeting adjourned.

Wm. Lindsay
Keeler,

Arthur Hawley }
Pres^d - }

The regular meeting of the
Astronomical & Physical Society
of Toronto held May 31st 1898
in the Technical School Bldg

The President Mr Arthur Hanny F.R.C.
occupied the chair.

The minutes of the previous meeting
were read and confirmed

Communications were read from
Dr J J See of Flagstaff Arizona
Miss Mary Proctor of New York
Dr Joseph Monison of Washington
Dr Brown of Port Elgin

Mr Brown's letter referred to some
observations he had recently made
and he also asked whether there
was any record known of an
observation of Jupiter's satellites with the
unaided eye.

Some discussion followed during
which Mr Lumsden mentioned that
it had been recorded that a sailor
in the English Navy had was frequently
able to detect the satellites. The
President mentioned having on one occasion
been convinced that the satellites were on
one side of the planet by observing an
elongation of the light of the latter.

D Mendick read a letter received from Mr W H S Monk referring to his observations of the ~~same~~ November meteor of 1852. D Mendick was still engaged in looking up records in the hope of finding that some other observer had recorded what he saw in that year.

Under the head of new business the proposed change in the Society's meeting place was discussed and Mr Lumsden stated that he would finally interview Mr Bair with reference to the room at the Canadian Institute.

Mr Elms stated briefly his reasons for considering any change at the present time inadvisable.

Mr Lumsden read some notes on the positions of the planets Saturn Uranus and Jupiter.

Observations were then reported Mr J Howell had observed on the evening of May 30 at 22^h 45^m a very slow moving meteor the trail of dull colour and ~~the~~ remaining visible for quite an appreciable time.

D Wadsworth in a letter to Mr Lumsden said that he had observed the close approach of the moon to Venus on May 22nd. Mr Lumsden had observed

The President informed the Society that having learned through Mr. Recording Secretary Lindsay that some friends in the City Council were not indisposed to make a small grant to aid the Society in its public work, he had presented a petition therefor and forwarded ~~to the Council~~ a complete set of the Transactions. As for lack of time he could not summon the Society's Council, he had merely asked the aid of Mr. J. H. Patterson, the past president, who had appeared with him before the Board of Control, by whom the application was courteously received.

It was stated that the Society did not require a grant for its private purposes, but for an object very dear to it, viz; the providing of opportunities for the general public to view celestial objects through telescopes. In time, the Society hoped to obtain some considerable support from the Council and from the citizens at large for a public observatory on the lines of the Urania Observatory at Berlin. Meanwhile, ~~its~~ its members had always sent telescopes to schools and open public squares whenever an important transit or eclipse had occurred, and wished to go further and place within the reach of the citizens the means of telescopic observation at less infrequent occasions. That if a grant were given, the Society would use it as a trust, and provide means for viewing the heavens at regular periods. It was urged that as the smallest telescope that could be usefully employed for such observation cost at least \$75⁰⁰ it was not possible for many families to own instruments, such as the Society would provide, and that some skilled person should be in attendance, with the instruments, to guide the inexperienced in viewing the stars, the moon and the planets. The Board was informed that the Society numbered about seventy members, who paid a small fee for the Society's purposes, but that the meetings had always been open to interested visitors, and that among them the Society had been pleased to welcome some of the aldermen. If any grant should be given, a statement as to its application would be duly made and forwarded at the close of the year.

The President further said that the Board of Control had recommended a grant of \$100, and that if it should be sanctioned by the Council, he would like Mesdames Craig and Savigny to advise with the officers of the Society as to the best way of administering the trust, as these ladies had within the last few months read interesting papers on the subject of public observatories. He thought some one who resided near an open plot of ground might lease a small room in which to keep some instruments and books, and give also the use of the open lawn for one or two evenings each week. In that case the Society could place its own telescopes there, appeal to members and others to lend their glasses, and pay a small sum to a proper person to attend to those who might wish to look through them. He knew of many who would be very much pleased to use the opportunity which could thus be afforded, when they had a right to do so - and that the payment of public money gave that right, under reasonable regulations.

the interesting revelation of
Jupiter's 3rd satellite in a small
telescope on May 16th -

M^{rs} Hecker read some notes
describing a meeting of ladies
held at M^r Hawley's house for
the purpose of viewing the Sun.
It had been very enjoyable although
the weather had not been good
for telescopic work.

The President read a brief account
of the results of an interview had with
the Board of Control of the City Council,
in reference to a money grant to the Society.
The sum of 100⁰⁰ had been granted it
having been asked for the purpose
of providing opportunities for the general
public to view celestial objects with
the telescope.

Under notes & queries the
President asked for an explanation
of the phenomenon of thunder and would
be glad to have the members look this
matter up by the next meeting.

M^r J Phillips made some references to
certain published statements regarding
the star Arcturus, which appeared to be
grossly misapprehended on account of the
extremely small parallax which had been
announced for this star. The President
asked M^r Phillips to prepare a short

John on stellar parallax for a future meeting
 on Tuesday then read a
 continuation of the sketch
 of the nautical almanac and
 dealing with the lunar ephemeris
 as contained in the first issues
 and with the difficulties experienced
 prior to the absence in determining
 the longitude at sea

John A. Galsterer
 Chairman pro temp.

Thos. Lindsey
 Secy

The People's Observatory.

The Astronomical and Physical Society has for a long time desired to see established in or near Toronto, an Astronomical Observatory for the use of the citizens, and is now induced to make a special effort to realize its hopes by the fact that the City Council has entrusted the Society with a small but sufficient sum of money as a commencement.

The Society wishes ultimately to acquire a piece of land on the heights immediately north of the city; to build a dome in which to place a telescope of considerable power, accessible to the public for a merely nominal fee; to maintain a director who shall be at the service of those who wish to view celestial phenomena.

The Society intimates its readiness to receive gifts of money from all public-spirited citizens, sums from one dollar upwards, wherewith to form a fund which will eventually suffice for all the purposes named. Sums donated, legacies, etc., will be held in trust by the Council of the Society whose names follow:

Hon. President HON. G. W. ROSS, LL.D.	President ARTHUR HARVEY, F.R.S.C.	Vice-Presidents E. A. MEREDITH, LL.D. R. F. STUPART.
	Corresponding Secretary G. E. LUMSDEN, F.R.A.S.	Treasurer CHAS. P. SPARLING.
Librarian W. B. MUSSON.	Recording Secretary THOS. LINDSAY.	Director of Photography D. J. HOWELL.
LARRATT W. SMITH, D.C.L., Q.C.	Ex-Officers JOHN A. PATERSON, M.A.	ANDREW ELVINS.
C. A. CHANT, B.A.	Elected A. F. MILLER.	G. G. PURSEY.
J. R. COLLINS.		REV. C. H. SHORTT, M.A.

The following is a draft prospectus of the Observatory proposed:

1. The Observatory to be held and managed as a public trust by the Astronomical and Physical Society of Toronto.
2. Estimated cost, in addition to the site, \$10,000.
3. The principal telescope to be approximately of the size and power of those now used for the international photographic survey of the heavens.
4. The Observatory to be open to the public on at least two stated evenings in each week.
5. Admission not to exceed 25 cents, but may be reduced at the discretion of the Society, and to be under rules prescribed by the Council.
6. All members of the Society to have admission free.
7. All donors to the capital fund of \$50.00, to have a family ticket admitting three persons, good during the lifetime of the donor. Municipalities contributing to have same privileges, *i.e.*, one family ticket, transferable, for each \$100.00 donated, in perpetuity.
8. Donors of \$10.00 to have the same privilege for five years. Donors of \$1.00 to have a ticket of annual admission.

All such privileges to run from the opening of the Observatory.

The Society meets at present on alternate Tuesdays at the Toronto Technical School, and on those evenings will have instruments on the open space near that institution from ten to eleven o'clock. Arrangements are being made to have telescopes in use on the intermediate Tuesday evenings, from 8 to 10 o'clock, under charge of an officer of the Society. In order that a record may be kept of those desiring to avail themselves of these privileges, it is requested that all who come shall present a card or envelope with name and address.

Active steps regarding the establishment of an Observatory having been specially urged upon the Society by some of its lady members, the Council has appointed a committee to advance the objects.

THOS. LINDSAY,
Recording Secretary

Council June 7th

MOVED by Mr. ~~Paterson~~^{Pursey}, seconded by Mr. Jno. A. Paterson

son that the draft scheme for the establishment of a people's observatory laid before this meeting by the Secretary be referred for consideration to the next regular meeting of the Society and that meanwhile copies of the same be sent to all the Members of the Council and to the active Members of the Society.

(11)

The regular meeting of the
Astronomical & Physical
Society of Toronto held in
the Technical School Bldg
June 14th 1898

Mr John A Paterson M.A.
ex president occupied the
Chair

Minutes of the previous
meeting were read and
confirmed

A Communication from Mr
H E S Asbury of Leaford was
read, conveying the welcome
intelligence that the Branch
Society formed at that time,
was in a flourishing condition
regular meetings for stellar study
being held and increasing
interest being taken by all the
members

The Librarian reported the
receipt of presents and ex-
changes since the previous
meeting

Mr Hindley ~~reported~~ called
attention to a very important
work which the Librarian had
undertaken, namely, the regular
examination of catalogues of

rare and valuable books offered for sale and the noting of such as would be likely to make useful additions to the society. Among others he had found a copy of Tobias Mayer's lunar tables, first edition 1770 bound up with a copy of Masnier's corrected tables edited of 1787.

It was moved and decided that this work be purchased for the society. Carried

Mr Geo E Lumsden read some notes of on phenomena to be observed illustrating the position of Jupiter Saturn and Uranus.

Mr Pusey reported his observations of the sun remarking specially that he had recently noticed that small spots would break out and quickly disappear. Mr Elliot stated that this was one of the phenomena usually accompanying the minimum of sun spot activity.

Mr Lumsden had observed the approach of Jupiter to a small star in the neighborhood and its recession from the same star, on account of the relative positions of the planet and the earth. The time of the planet's passing from

direct to retrograde motion
had been observed & exactly
agree with the computed time
as given the phenomena, several
years in advance.

From S. Wadsworth of Simons was
received a short note of
the same observation.

M^r Sainpuy & M^r Elms and others
read brief notes on the phenomenon
of Thoresen as requested at a
previous meeting by the president.

The chairman then announced
that the special business of the
evening ~~was to be~~ would be a
discussion of a plan for the
establishment of a Peoples observatory
in Toronto. At a meeting of council
held June 7th the president had
presented a draft proposed for
discussion by the council. At that
meeting there was not a large attendance
and it had been moved and
carried that the subject be brought
up at the next regular meeting
of the society and it was therefore
now in order.

In opening the discussion M^r
Sparling stated that in the
absence of the president, who had

brought the plan in its present state before the council. It would be impossible to satisfactorily discuss it. He stated also that although the matter had been referred to ~~the~~ a regular meeting of the Society and was of such importance that only at a full meeting could it be disposed of, it would still be more satisfactory to have a full council report before action was taken by the Society.

~ THE ~
ASTRONOMICAL & PHYSICAL SOCIETY

OF TORONTO

Members and Friends are specially invited to attend an Open Meeting
of the above Society to be held in the

ELECTRICAL ROOM, TECHNICAL SCHOOL
COLLEGE STREET

TUESDAY, JUNE 28th, 1898

AT 20 O'CLOCK

Mr. NAPIER DENISON, of the Meteorological Service, will
lecture on

"OUR ATMOSPHERIC OCEAN"

Illustrating the Subject by Stereopticon Views.

THOS. LINDSAY,
Rec. Secretary.

Mr. Sparling then formally moved that the discussion of the plan for the establishment of a Peoples' observatory be referred to a special meeting of the council of the Society. Some discussion immediately followed. Mr. A. T. Debeny addressed the meeting briefly and stated that in considering this matter it would be well to take full account of possible assistance from the University of Toronto.

Mr. Lewster pointed out that in his opinion success could only be assured when such an institution as the University of Toronto lent its hearty aid to the scheme finally adopted.

Mr. Lindsay asked Mr. Spaulding to add to his motion a clause specially inviting Mr. DeLong to the council meeting and also arranging that the meeting be held in the evening when a full attendance might be had.

This Mr. Spaulding agreed to and the motion so amended, seconded by Mr. Pursey was carried.

Mr. Savigny presented some copies of the publications of the Institution known as Mania of Berlin, Germany out which were descriptions of an establishment in some respects similar to a People's Observatory as proposed.

Reference being made to a paper which had been read before the Canadian Institute upon this subject, but not included in their published transactions, Mr. Lindsay moved that the same paper be read before this society by Mr. Lewster. This was acceded to but the date not fixed.

It was then announced that at
 the next regular meeting Dr. Napier
 Division of the Meteorological Service
 would read a paper on "Our
 Atmospheric Resources", illustrated by
 lantern slides.

The meeting then adjourned.

Her husband,
 N. K. Lee.

Arthur H. Harvey
 Pres.

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The regular meeting of the
Astronomical & Physical
Society held June 28th 1898
in the Technical School Hall
London

An open meeting to which
the public had been invited

The President Mr Arthur Havery
R.S.C. occupied the chair

The minutes of the previous
meeting were read and confirmed

A communication was received
from Mr L. Libert of Havre
France, covering the trans-
mission of a series of observations
of falling stars and ~~of~~ a
continuation of a series of observations
of Mira ~~et~~ (omicron ceti)

The secretary also stated that
the Lords Commissioners of the
Admiralty had provided the
Society with three volumes of the
Annals of the Cape of Good Hope
Observatory two of which were
on the new determination of the solar
parallax.

Mr Percy briefly reported his
observed observations of sun spots
and faculae

The President read some notes on the work of M. Deslandres of the French Academy in connection with solar phenomena and especially with X rays radiated by the sun.

Further business and discussion were deferred and Mr. Hapier Denison was called upon to deliver his lecture as announced on "our atmospheric year".

Aided by a collection of very fine lantern slides Mr. Denison illustrated the subject so as to make it most instructive, the lecture being thoroughly appreciated by the audience present.

At the conclusion Mr. John A. Peterson and Dr. E. A. Mearns moved the thanks of the meeting to Mr. Denison.

Several other members made remarks upon the lecture and asked Mr. Denison several questions to which he replied.

The chairman presented the thanks of the meeting to the lecturer and added his own appreciation of what had been presented.

It was then announced that at the next regular meeting Mr. Des

C. Hamilton would read a paper
 of a popular observation and that the
 President would then give a vote
 for a council meeting to thoroughly
 discuss what had been brought
 before the society at the previous
 meeting in regard to the establishment
 of a People's observatory in Toronto.

The meeting then adjourned

Wm. L. Hurd

Arthur H. Hurd
 Pres. P.

See See

The regular meeting of the
Astronomical and Physical
Society of London held July 12
1898 in the Technical School
Bldg

The President Mr Arthur Hawley
F.R.S.C. occupied the chair

The minutes of the previous
meeting were read and
confirmed

Among communications received was
a letter from St Ludwig of Post
Dachau in reference to the
forming of a society in that locality

Mr Arthur Cottam F.R.A.S. made
in reference to his star chart
which had been reduced in price.

Mr Lumsden reported having
interviewed Mr Jos. Bain in reference
to the room which it had been
proposed to give the society in the
Law Institute Bldg. Action on this
matter was referred to the council

Some predictions of celestial phenomena
were given by Mr Lumsden. Among
these was a close approach of Mercury
to Regulus on the evening of July 15th.
It was also stated that the German
astronomer who had announced that

There was a second moon wandering about the Earth ^{had} named July 30 as the day when the object would transit the Sun's disc.

In reporting observations Mr. Parsy stated that the sun had been free entirely from spots since July 1st

Observations of Jupiter and of Saturn were also reported by other members

The president stated that there had been an earthquake disturbance recorded at the Observatory on May 27 or 28 pm. and the trace had been shown him. This differed from other traces in a marked degree and this it was thought was due to the distance traversed by the wave. In this case probably the origin was in Japan.

The correspondence relating to the matter of July 30 widely observed on the evening of July 5 was then read. Some of the matter had been condensed by the President into a short paper and certain conclusions were drawn regarding the form track point of explosion and place where it fell. Other letters were however inspected and a fuller account might yet be had.

Several of the members present had

observed the meteor and described
its appearance &c

In the course of a general discussion
M^{rs} Craig stated that in conversation
with certain citizens interested in
scientific adornments she had heard
very favorable comments on the project
for the establishment of a popular observatory.
She was convinced that there were
several who would subscribe very largely
to this object.

The President appointed the evening
of July 19th at his residence for
a meeting of the council to consider
the whole matter

The President also requested M^{rs} Musson
to prepare a
short paper on the meaning of
the term "Primum mobile"

The meeting then adjourned to meet
the next July 26th at his residence

John Lindsay

Arthur Harvey.
President

Meeting of Council of The
Astronomical & Physical Society of Toronto
held July 19th at the residence of
the President.

On calling the meeting to order the
President stated that the question of
the establishment of a popular observatory
was open for discussion; and requesting
Mr Vice President Stupart to take chair, ^{the President} briefly
addressed the meeting stating ~~that~~ his views
which were that an effort should be made
with the assistance of the labors of the society
to raise by popular subscription a sum sufficient
for the purpose in view.

Mr Harvey then resumed the chair.

The ^{Provisional Programme} ~~circula~~ ~~letter~~ which had been presented at the previous meeting was read by Mr Lindsay as follows:-

~~and the opinion expressed by him that a circular was very necessary in order to let the public know the details of the project.~~

Mr. Paterson reviewed the subject generally and stated that in his opinion a system of canvassing for subscriptions would not succeed where the object was a scientific one. He differed from the President in this while acknowledging the energetic action in bringing the question so prominently forward.

Other members present then entered into the

discussion. Mr Elvins thought that it was only by the aid of the University of Toronto that the object could be accomplished. Mr. Lumsden

Mr. Stupart and Mr. Selwyn were of the same opinion. Mr. Selwyn spoke at some length

to show that unless an observatory were directly connected with an educational institution it would be impossible to make it a success.

while stating that he had not proposed a house to house

The president ~~then~~ called for a formal expression of the wishes of the meeting and Mr. Elvins

was seconded by Mr. Peterson that the President

appoint 4 members of the society to confer with

the authorities of the university ^{of Toronto} and the Minister

of Education to discuss joint action in connection

with the establishment of an observatory

which was carried.

at the request of the meeting
The President then named as members
the Committee Mr. Elvins Mr. Paterson and
Mr. Lewis and Mr. Craig.

Mr. Elvins then stated that a step should be
taken towards regular observations work and
would be seconded by Mr. Spaulding.

That the alternate Tuesday evenings between
the regular meetings be devoted to observations
at the Technical School or other suitable place
and that Mr. Lindsay be appointed to take
charge of the instruments and ~~conduct these meetings~~
which would be open to all who wished to attend,
under regulations to be made
This carried and the meeting adjourned

J. H. Lindsay
Rec Sec

British Association for the Advancement of Science.

BURLINGTON HOUSE, LONDON, W.

June 30, 1898.

DEAR SIR,

I have the pleasure of informing you that the Corresponding Societies Committee have recommended the ~~election~~ ^{election} ~~retention~~ of the *Astronomical & Physical Society of Toronto* on the list of Corresponding Societies of the British Association.

I beg that you will furnish me with the name and address of the Delegate whom you propose to send to the Meeting at Bristol, commencing on September 7.

I shall feel obliged if you will:

- (1) Fill in the enclosed Form and return it to the Office of the Association, *not later than August 20.*
- (2) State whether your Delegate has made known to your Society the various subjects brought before the Conference of Delegates at Toronto, and, if so, whether publicity has been given to his report in your publications.
- (3) State whether any work has been done by your Society, or by Members thereof, on the representation of your Delegate.

I may remind you that any Delegate which you propose to send must be, or must become, a *Member* of the British Association, and that only *one* Delegate may be sent by each Society.

The Meetings of the Conference will be held in University College, on Thursday, September 8, and Tuesday, September 18, at 3 P.M. precisely.

It is expected that your Delegate will ATTEND BOTH MEETINGS OF THE CONFERENCE.

At the first Meeting, on Thursday, September 8, Mr. W. WHITAKER will introduce the subject of Coast Erosion as one needing the attention of Local Societies.

At the second Meeting, on Tuesday, September 13, in addition to the Discussion on the Work of the various Sections in which Local Societies can help, Prof. S. P. THOMPSON will bring under the notice of the Delegates the subject of Uniformity in Size in the Publications of Local Societies.

I am, dear Sir,

Yours faithfully,

G. GRIFFITH.

The regular meeting of the
astrophysical & Spectroscopical
Society of Toronto held
July 26th of 1935 in the
Technical School Bldg

The President Mr Arthur Hawley
F.R.S.C occupied the chair

The minutes of the previous
meeting were read and
confirmed

The report of the Council
meeting of July 19th was
read and the same adopted

Mr Paterson addressed the meeting
briefly on the subject of the
use to be made of the municipal
grant when it would be received.
The President appointed a council
meeting for Aug 2nd when this
could be discussed.

Mr J.W. May of Branbridge Ont.
was duly elected an associate
member of the society.

The Librarian's report included the
announcement of the receipt of
the annual volume of Transactions
published by the Royal Society of
Canada.

Among predictions of phenomena Mr. Hummer mentioned that the German astronomer Wallewath had named July 30 as the day when the so called second moon would be seen to cross the disc of the sun. It was suggested that observers should watch the sun on that day although no one except but the German himself seemed to have any faith in the so called discovery.

The President announced that he had received further reports of the meteor of July 5 and would present and amended report ~~to~~ discussing all the observations at a future meeting. Mr. Hummer also reported observations of the meteor and gave an account of what Mr. London of Tromsø had seen ~~at~~ from a station in Muskoka.

In reference to the supposed sound of the explosion of any meteor Mr. Phillips remarked that the senses were very easily deceived and one might easily imagine a sound when really none existed.

Observations were reported by Mr. Percy the President and Mr. Craig.

Mr. Craig had observed an aurora at about 9 o'clock on the evening of July 10 which had been seen as a ~~cloud~~ during the afternoon. Mr. Elias

had observed a similar phenomenon
on July 19th. He had learned that
there had not been any unusual
magnetic disturbances accompanying.

Discussion

The paper for the evening had been
announced to be read by Mr. Musson. This
however was not quite ready and
was accordingly postponed.

It was arranged that Mr. J
Phillips would read a paper
on Stellar Parallax at the next
meeting, and at subsequent
meetings there would be read
Mr. Musson's paper, and one by Mr. Lumsden
on "Black lightning" and a paper
by Dr. Watson on the physical
effect of atmospheric conditions.

The meeting then adjourned at $\frac{21}{7}$ 30
to meet again 9th at 20 o'clock

The Lindsay

Arthur Sturtevant }
Pres. B

The regular meeting of the
Astronomical & Physical
Society of Toronto held
Aug 9th 1898 in the
Technical school

The President Mr Arthur
Hawey F.R.C. occupied
the chair

The minutes of the previous
meeting were read and
confirmed

Letter was received from
the Director of the Royal
Alfred observatory Mauritius,
covering the transmission of
two volumes of the meteorological
reports of that station.

A letter from Mr John A. Paterson
giving ~~as~~ a report of the
Council meeting of Aug 2nd was
read. There had not been a
quorum present at the meeting ~~but~~
and therefore no official minutes
taken. A discussion had however
been entered into with regard to
the best distribution to be made of the
municipal grant.

The President commenting upon the letter
expressed his belief that there would
be no difficulty in ultimately

taking such steps as would be satisfactory to the city council and to the members of the Society.

Mr Geo Craig was nominated for active membership and on suspension of the rules duly elected.

Mr Lindsay the recording Secretary stated that the Technical School would shortly be making arrangements for the winter classes and it would be well to interview the Chairman of the School Management Committee regarding the right of meeting, remembering that last year the evening had to be changed from Tuesday to Thursday. The President and ~~Mr Lindsay~~ the Secretary would see Mr Salbraith in regard to this matter.

The Librarian's report, ^{not by the Librarian} included the announcement of the receipt of Prof. Hansen's monograph on Mars containing 18 drawings of the surface made during the last opposition and one map of the entire surface on a Mercator projection.

Mr Musson the Librarian was out of the city at present, ~~and~~ being on a visit to the Yerkes Observatory.

and it was stated by the President that at an early date we might expect an account of that ~~former~~ great institution from Mr. Musson.

Reports of observations were then received.

Mr. Lunday read the first report of the Tuesday evening observations. Mr. Pusey made some diagrams on the blackboard illustrating his solar observations.

The President described his observations of Venus, ~~on the~~ markings on which were ~~of the~~ plainly visible, without admitting of much detail being observed.

Mr. Lunday stated that reports of the meteor of July 5 had been sent to the English Mechanic and to Popular Astronomy, from Geneva viz.

The members were reminded of the August meteors radiating from Perseus which might be seen on the evenings of Aug 12 & 13th.

The paper for the evening had been announced to be read by Mr. Phillips on Stellar Parallax. This was however postponed at Mr. Phillips request.

^{till the next meeting}
The remainder of the evening was then spent in a general discussion and

in making some observations with
~~the~~ a telescope on the lawn.

The meeting then adjourned
 to meet Aug 20th

The holidays
 confirmed
 E. Mearns
 Chairman.

The regular meeting of the
Astronomical & Physical Society
of Ipswich held Aug 23rd 1898
in the Technical School

The Vice President Mr E A Meredith
LL.D. occupied the chair.

The minutes of the previous
meeting were read and confirmed

Letters were read from
Prof Griffith Assistant General
Secretary of the Brit. Assn.

From Prof Brewster of Geneva N.Y.
From the Astronomer Royal
of Ireland

Mr Griffith invited the Society to
appoint a delegate to the
Bristol meeting of the Assn.

The Astronomer Royal of Ireland
had written to Mr Meredith to
say that he had not been able
to find any other record of the
meteoric display of 1832 than the
one published in the Monthly Transactions
for 1837, as given by Mr Meredith himself.

Under new business it was stated
that the Technical School Board
would make no change in the
arrangements of the Technical School
which would be made this year.

The librarian presented his report
of presents and exchanges

The report of the record of
the Tuesday evening observation
meetings was read by the Sec. Sec.

Mr. Pusey reported observations
of the sun

Mr. Henry Spats

Friday faint

Last Sunday

Aug 16

Quarter 0 ring

yellowish

appearance

flesh tightening

(around 13th evening)

North to South

Mr. Musson was then called upon to read his account of a visit recently paid to Yerkes Observatory.

Bearing introductory letters from the President and corresponding Secretary Mr. Musson had been most courteously received at the Observatory by the Director and his staff. The description proved of very great interest and some important facts were stated regarding the work at the Observatory and the opinions of the astronomers there on the subject of large telescopes.

Following Mr. Musson's paper was a short discussion and the Secretary was requested to convey to the Director of the Yerkes Observatory the thanks of the Society for having so courteously entertained one of its members.

Mr. J. Phillips then read a paper on Parallax illustrating by diagrams and simple formulae the methods of determining the parallax of the moon. The subject was made very clear and proved most interesting. A brief discussion followed after which the meeting adjourned ~~at 10:30 on August 27th~~

W. L. Bradley

during which the more difficult
problem of determining ^{status}
paradise was referred to by
Mr Phillips.

Mr Lumsden then stated that he had
a motion to move with reference to
the appointing of a delegate to the
meeting of the Brit. Assn. in Bristol

It was then MOVED by Mr. Lumsden, seconded by Mr. Elvins, that, it having
been officially intimated that this Society has recently been
elected a Corresponding Society of The British Association for
the Advancement of Science, it is hereby resolved that such
election is approved of; that the Corresponding Secretary be
asked to fill up the forms which have been received, and to re-
turn them to the Assistant General Secretary of the Associa-
tion, with a copy of the last Report of this Society, and that
Mr. W. F. Denning, F.R.A.S., of Bristol, England, a Corresponding Mem-
ber of this Society, be asked to act as its delegate at the en-
suing meeting of the Association to be held at Bristol, and,
if Mr. Denning be unable so to act, that Mr. B. E. Walker, F.G.S.,
who will be in attendance, be requested to exercise his good
offices on behalf of this Society, and that a copy of its last
Report be sent to Mr. Denning and to Mr. Walker.

This was carried and the meeting
adjourned till Sept 6 or 21 next

G. L. Pursey

The regular meeting of the
Astronomical & Physical Society
held Sept 6th 1898 in the Technical
School Building London

Mr G. G. Pursey occupied the chair

The minutes of the previous meeting
were read and confirmed

Letters were read from
Mr Arthur Cattam F.R.A.S.
Mr S Papps of Hamilton
The Ward Institute of Rochester

The librarian reported the receipt
of exchanges, and presents since
last meeting.

The Treasurer reported that the
Provincial and Municipal grants had
been applied for and were shortly
expected.

The Treasurer also stated that there were
several arrears of annual
fees payable to the society. He hoped
that these would be remitted now
that the holiday season was over.

Among predictions of phenomena
it was noted that Mars now rises
before midnight, and on the 9th
of September would be occulted by the

moon but not visible here.

The harvest moon would be observed on the evenings of Sept 26 27 28 29th

The report of the 3rd meeting for observational work held on Tuesday Aug 30th. The chief phenomenon observed had been the occultation of δ Aquarii. Several visitors had been present and the evening agreeably spent.

M^r Pursey reported observations of the large spot now upon the disc of the sun and which he thought was the largest seen since 1875

M^r Lumsden stated that he had had a brief visit from Mr Prashar of Allepore and had discussed with him the Aurora of Friday Sept 2nd

There being no special paper for the evening it was proposed to read an article by Prof James C Kaler on Physiological effects in observing the spectra of the nebulae and stars.

Some discussion followed this during which M^r Smith drew on

blackboard, a diagram of the spectrum of solar light showing the principal lines. It was thought that an evening on the spectroscope would be much enjoyed by the members and friends.

The meeting then adjourned to meet Sept 20 at 20 o'clock

Wm. L. Day
Rec Sec

Arthur Hawley,
Pres^{or}

18 The regular meeting of the
Astronomical & Physical Society
of Toronto held Sept 20 1914
in the Technical School Bldg

The President Mr Arthur Hawley
occupied the chair

The minutes of the previous
meeting were read and con-
firmed.

Letters were read from Sir John
Dominik Hon Secretary of the Royal
Society of Canada; the editor of the
Lodge Home Journal; Mr W. H.
Monk and Mr J. A. Mackenzie

Mr W. H. Monk was nominated
for corresponding membership
by Mr Cairns and Mr Elliot

Mr Sparling reported having
received the grants from the
Provincial Government and from
the City. The sum to the credit of
the Society in the Bank was now
\$370⁰⁰

Reports of observations were then
received and discussed.

Mr Elliot presented a series
of drawings made of the great sun
spot group of Sept 4-15. Mr
Lumden presented a sketch which

showed the difference in tint between the umbra and penumbra. Bright tongues were also shown projecting into the umbra somewhat similar to those shown in Langley's well known drawings. Mr. Humphreys had noted an unusual activity in the faculae which appeared to fluctuate in brightness.

A sketch was received from Dr. J. J. Wadsworth drawn at his telescope by Miss Helen Sturges of Simons. Dr. Wadsworth named the tint of the penumbra of the large spot as reddish brown.

The president read some notes on the Perseid meteor of August 11th as observed in Europe; and also read some notes on the discovery of Prof. Ramsay as brought before the meeting of the British Association in Bristol.

Mr. Z. Collins reported having observed on the evening of Sunday Sep 18th an aurora which appeared as an intermittent flash of light.

Mr. W. B. Musson was then called upon to read a paper on the Primum Mobile. This which had been prepared by request took the form of a concise sketch of the ancient ideas regarding

the motion of the heavenly bodies.

A short discussion followed during which the President stated that there was an important point to be yet considered, that was the idea of the ancients as to the cause of the first motion of the spheres.

Mr. Lumsden called attention to the injuriousness of the ancients in creating as it were a system of spheres revolving about a centre and thought it would be an interesting question to ask how they were led to this idea for there was nothing in nature to suggest such motion.

The meeting then adjourned to meet Oct 4th or 20th o'clock

Arthur Harvey }
Pres^t

Wm. Lumsden }
Rec^d

1857

19

The regular meeting of the
Astronomical & Physical Society
of Toronto held Oct 4 1898 in
the Technical School Bldg

The President Mr Arthur Hawley
F.R.S.C. occupied the chair

Mr W.H.S. Monk was duly elected
a corresponding member of the
Society

Mr J.D. Warren of Toronto was
nominated for actual membership
by Mr G. B. Pursey

A letter was recd from Mr B.E.
Walker who had returned from the
meeting of the British Assn, and stating
that Mr ^{W.H.} Demming ^{F.R.S.C.} had represented the
Society at that meeting.

A circular had been received from the
Director of the Paris observatory announcing
that the 3rd series of lunar photographs
had been forwarded to the Society. These
had not yet arrived.

A letter was recd from Mr D. Hodder
of Alta Iowa giving some details of
his spectroscopic observations of the great
sun spot of September.

Mr Hodder stated that there had been a
rotation by rotation, a view in which
Mr Clark concurred.

Reports of observation were this
made by Mr. Lumsden, Mr. Davis
and others.

Mr. Davis had noted the return of the
spot on September 11th.

Two bearings of the spot that of
September were received from
Mr. J. A. Brashear of Allipore who
had been summering in Simskoka
during the month.

A letter was received from Dr. Caswell
President of the Liverpool Astronomical Society
in reference to the matter of July 5 and
enclosing a sketch of the path as
computed by him from accounts
received.

The President called attention to
the recent discovery of a new minor
planet one which came at perihelion
between the orbits of the Earth and Mars
and would at the most favorable
opposition be visible to the unaided eye.
This object would eventually, it was
said, prove the one by observation
of which the best determination of the
solar parallax would be obtained.

Mr. Craig read some notes culled from
the various periodicals of the day
bearing upon scientific questions.

Mr. Stupart stated that there would
probably be an opportunity to do
some practical work in the study of
Earth currents now that the observations

had been established at Apincomb.

Mr John a Paterson called attention to the particular beauty of the sites in the Muskoka district. He had found the houses to present an appearance totally unknown elsewhere in the city and thought that if ever a great observatory should be erected, that was the place for it. Mr Sumner reminded the members that this was also the opinion of Dr Brooke who had travelled widely and yet declared that no where had he found a site so near the ideal as in Muskoka.

The President had prepared some notes on the paper read by Mr Morrison at a previous meeting and it had also been announced that some time would be spent in arranging for systematic observations of the women's meters.

The general discussion had however occupied the time and it was arranged to postpone the reading of the President's notes till the next meeting and ^{also} to take up the matter of the meter observations ~~starting~~ at the next meeting and the one following the meeting then adjourned.

A. Elvins.

That Sunday
Rue Lee

70

The regular meeting of the
Astronomical & Physical
Society held Oct 11th 1898 in
the ~~Association~~ Frank
Observatory

Mr. A. Elvins occupied the
chair

Letters were read: from Miss
Proctor of New York who had
passed had just published
her book "Stories of Starland"

From Prof. W. W. Payne of Northfield
who stated that the question of
preparing for the eclipse of
1900 would soon be taken up
in the pages of Popular Astronomy

From Mr. J. K. Cannon of Elora who
stated that he had been unable
to devote any time to solar
photography lately owing to
the illness of his father.

Mr. R. F. Spence ^{of Toronto} was nominated
for active membership by
P. S. & A. Meredith

Mr. J. D. Warren of Toronto was
duly elected an active
member

Under new business it was moved by Mr. Leonard and seconded by Mr. Lindsay

that the next meeting be held at the Canadian Institute and that the Technical School Board be informed that the Society would give up their room in the School Building for the present, but expecting that if other quarters were provided for the school the matter of accommodating the Society would be considered.

At this point Mr. R. T. Stupart arrived and on being informed of the motion under discussion stated that it would be only necessary to request enquire whether the council room of the Institute would be available on the evening of the next meeting. The secretary was therefore instructed to communicate with the secretary of the Institute, and if there were no objections to issue a card acquainting the members generally of the meeting.

Mr. Leonard briefly described a visit ~~made~~ made to the observatory at Ajincourt at the invitation of the Director Mr. Stupart. A detailed

description of the new establishment
it was thought should be brought
into the Society's Transactions. Mr. Shepard
stated that he would prepare this
at an early date.

An article was read from the
London Globe dealing with the
discovery of the new planet
and an interesting discussion
followed.

The matter governing the meters of
Nov 13 was also briefly discussed.
Mr. Collins stated that Prof. Hall
of the Yerkes Observatory would send
printed forms for recording obser-
vations to any one writing for them.
It was decided to ask for these

It was announced that the next
meeting would be held Nov 1st and
that Dr. Meredith would then
read a paper on the expected
meters of November 1838.
The meeting then adjourned

Not heard say

Arthur Hawley,
Pres^{nt}.

V

The regular meeting of the
Astronomical & Physical Society
of Toronto held Nov 1st 1898
in the lecture room of the
Canadian Institute.

The President Mr Arthur Harvey
occupied the chair

The minutes of the previous
meeting were read and con-
firmed.

Mr Lumsden addressed the meeting
in explanation of the change of location.
The Council of the Canadian Institute
had intimated a willingness to allow
the use of the lecture room at ~~no~~^a
charge covering only the necessary outlay
there was no dissent from the
proposal to meet regularly in this
room. Particulars of room for library
&c would be arranged by the
Council.

Letters were read from Dr Wadsworth,
from the Secretary of the Rochester
Academy of Sciences; from Mr J C Vanduyke
of the Rutgers College New Brunswick N.J.

Mr R. T. Spence of Toronto was
duly elected an active member
of the society

Reporting observations Mr. Elwin stated that there were now very few spots on the sun. It was noted that the observations record had been broken on account of the work of moving the magnetic instruments in September. The regular work however had been carried on by Mr. Blake during October. The president called attention to the somewhat unsatisfactory state of solar photography. In this connection Mr. Lindray stated that he had compared several of Mr. Elwin's drawings with photos published in Knowledge and had been struck with the similarity.

The president reported an observation of the south polar cap of Mars seen in his 3 inch. Mars was ^{not} a very good object in the ^{midnight &} early morning skies.

Further business was then suspended and Dr. E. A. Meredith was called upon to read his paper on "The expected meteors of November 1898"

The paper which was illustrated by diagrams was exhaustive, dealing with the Leonids and the Andromedae, their histories, and peculiarities.

A discussion followed in which several members joined.

Mr. Shinn read some notes which he had written in 1887 about the display of that year. Mr. Paterson illustrated the method of determining the periodic time of the nutans from the position and refraction distances.

The president briefly referred to the method of observing and hoped that all who could do so would observe on the evenings of the 13th & 15th and report at a future meeting.

The meeting then adjourned to meet Nov 15th when a paper by Mr. Shearman and some notes by Mr. Hawley would be read.

Thurs day
Re. Sec.

Approved
G. E. Shinn
pro President.

add. Mr. Shinn cautioned the members not to be too expectant with regard to having a display of this year.

VV

The regular meeting of the
Astronomical & Physical Society
of Toronto, held Nov 15th 1898
in the Can. Inst. Bldg.

Mr Geo E. Lumsden occupied the
chair.

The minutes of the previous meeting
were read and with an amendment
were adopted.

The chairman addressed the meeting
briefly in review of the work that
had been done in the effort to
procure a suitable place for ~~meeting~~
holding the meetings of the Society, and
asked the secretary to read a letter
written in March of this year and
which set forth the conditions under
which the Society might meet regularly
in the Can. Institute.

(Pasted on
page 418)

Mr Chas P Sparling moved, seconded
by Mr A Elvins that the offer of
the Canadian Institute be accepted
and that the President be authorized
to represent the Society in completing
the transaction. Carried

Mr A Elvins moved, seconded by
Mr G. G. Pursey that the librarian
be given authority to have the
Library removed from the Technical
School to the room in the Can.
Inst. Carried

Mr C. P. Spaulding then moved that a sub-committee of the council meet before the next regular meeting to discuss a revision of the membership list. The chairman appointed 7³⁰ pm. on Nov 29th; the committee to be the President, the Treasurer, and the two secretaries.

Carried as proposed.

Letters were then read:

From Mr E. W. Maunder of London, Eng. calling attention to the work which ladies might accomplish the field of astronomy;

From Prof E. C. Pickering of Harvard covering the transmission of some copies maps and record forms for the observations of Leonid meteors.

The librarian reported the receipt of the first volume of the Annals of the Lowell Observatory containing a series of ~~several~~ drawings of Mars and a full discussion of the same by the Flagstaff observers.

In discussing the predictions of phenomena Mr Elvins called attention to the great probability that the Andromedes would be seen earlier than the 27th this year. A movement of the node of the orbit of the meteors might bring the Earth and the SW arm together earlier and earlier, year by year.

The chairman then called upon the members for reports of the Leonids.

Mr. Elvins stated that he had made arrangements with Mr. J. R. & Z. M. Collins to observe during the whole night but had been disappointed in the weather and had really nothing to report bearing upon the Leonids. Mr. Elvins, stated however that he had certainly noted some meteors radiating from a point near the bright star Capella, in the constellation Auriga. He thought it would be worth while to consult Denning's list to see whether he named a radiant in that region.

Several of the ladies present had done their best and some had observed individual meteors which were probably Leonids.

Miss Elliott and Mrs. Merrishaw had observed in this manner.

After a ~~general~~^{short} discussion of these isolated observations Mrs. Craig read some notes from recent writings by E. Maunder & Sir Robt. Ball.

Mr. T. S. H. Shearman's paper on the connection between sun spots and terrestrial magnetism was then read and briefly discussed.

Mr Shearman wished to again state that he had priority in the matter of discovering that magnetic disturbances were coincident with the appearance of spots on the east limb of the sun.

~~A paper by the President on the subject of which Mr. Messer had~~

A short paper prepared by the President had been handed to the secretary for reading. The chairman ruled that the time remaining was too short to do justice to this, and proposed that it take precedence at the next regular meeting but one following.

On the next meeting to be held Nov 29th Mr C.H. Shortt would deliver a popular lecture on the subject of "What an amateur may do without apparatus"

The meeting then adjourned

J.H. Lindsay
Secy

G.E. [unclear]
Pro. President.

✓ Canadian Institute
Nov. 29th 1898

The regular meeting of the
Astronomical and Physical Society
of Toronto, held Nov. 29th 1898 at 20 o'clock

Mr. Geo. E. Lumsden, in the chair.

The minutes of the previous meeting
were read and confirmed.

Communications were read from
Mr. B. E. Walker re Provincial Libraries.
" J. V. Holmes Hon. Sec. B.A. for Adv. of Sc.
" L. O. Howard, ^{Assoc. Assn.} ~~Assoc. of Chem.~~ Adv. of Sc.
" E. E. Barnard, Univ. of Chicago
stating terms for his lecture re.

Rev. Chas. H. Shortt then gave his
popular talk on "What an Amateur
could do without tools."

On motion of Ald. Davis and
Mr. J. A. Paterson, a hearty vote of thanks
was tendered to Rev. Mr. Shortt for
his valuable and interesting talk.

Several of members addressed
the meeting acknowledging the large
^{Amount} of instruction and information gathered
from the "talk" of the evening.

The Chairman directed the Rec. Secy
to call a Council Meeting, for important
business, on Monday Dec 5th 4.30 p.m.

in the Society's Rooms

The Librarian's Report was received.

The Chairman announced that a friend had reported seeing the Andromeda Meteors on the morning of the 28th inst.

Mr. Savigny handed in a sketch of the Moon made from an observation on 18th Nov. at 19 o'clock.

Messrs Wallace and Pursey reported an interesting sunspot.

The Chairman then closed the meeting.

Chas. Sparling
Acty Rec. Secy

Arthur Hawley

Chairman

The Astronomical and Physical Society of Toronto.

(INSTITUTED 1885. INCORPORATED 1890.)

TECHNICAL SCHOOL BUILDINGS,

Toronto, Canada,

Minutes of Council Meeting Held
in Canadian Institute 4³⁰ PM.
Dec. 5th.

Mr J. A. Paterson in Chair -

Present - Mr. Lumsden

- Elvick
- Howell
- J. Collins
- Sparling
- Merson

It was moved by Mr. Howell
seconded by Mr. Lumsden that
the offer of the Canadian Institute
to give the Society quarters in
the building of the Institute, be accepted.
This offer includes the use of
the Lecture room for meetings
of the Society together with the
permanent and sole use of an

The Astronomical and Physical Society of Toronto.

(INSTITUTED 1885. INCORPORATED 1890.)

TECHNICAL SCHOOL BUILDINGS,

Toronto, Canada.

an additional room for a library
the same to be open to members
during the usual hours when
the Institute is open.

In return for above privileges
this society will be required to
meet the cost of lighting, and
give a reasonable remuneration
to the Caretaker. The probable
amount of such expense to
be ascertained before next
meeting of Council.

The motion was carried.

Moved by Mr. Stawell that
{ seconded by Mr. Sparling
The President, Secretary, and
Librarian be appointed a
Committee to furnish the library.

The Astronomical and Physical Society of Toronto.

(INSTITUTED 1885. INCORPORATED 1890.)

TECHNICAL SCHOOL BUILDINGS,

Toronto, Canada,

The expense (including a
suitable Cabinet for filing
the archives of the Society)
not to exceed \$ 00⁰⁰
Carried

Moved by Mr Lumsden,
Seconded by Mr Munson
That account of Toronto Enginar-
-ing ~~Co.~~ Co. for \$ 3²⁵ be held
over for further information.
Carried

Authority was given to the
treasurer to deal with the
subject of arrears of fees -
At his discretion, members who
paid their fees for the current
year, and required their liberation

The Astronomical and Physical Society of Toronto.

(INSTITUTED 1885. INCORPORATED 1890.)

TECHNICAL SCHOOL BUILDINGS,

Toronto, Canada,

to keep themselves in good standing
should be retained upon the
membership list. ^(appears on the cancelled) The names
of all members not desiring
to do this should be ~~deleted~~
omitted from the next report.

The question of bringing Prof.
Barnard to Toronto to deliver
a lecture on Astronomy was
introduced, and after some
discussion, Mr J. A. Paterson,
Mr. Lumsden, and Mr Spaulding
were appointed a Committee
to interview the proper officers
connected with the Educational
& Scientific Associations of the

The Astronomical and Physical Society of Toronto.

(INSTITUTED 1885. INCORPORATED 1890.)

TECHNICAL SCHOOL BUILDINGS,

Toronto, Canada,

City to all of sufficient
support. Could be caused
upon to justify this Society
in taking further steps in
the matter.

The meeting was adjourned to
meet again in the same room
at 3 P.M. Saturday 10th inst.

G. E. Lumsden
Pro. Secretary.

Adjourned Council meeting was
held at 10th C.D.

Mr. Hawley
Paterson
Stupart
Shout
Evens
Munro

Paterson found
Crimin. on part of
to make push report

The question of Prof Bannard's
Lecture in Toronto was fully
discussed, and the President
stated that while it was
considered inexpedient that this
Society should assume the entire
responsibility of bringing Prof
Bannard to Toronto, it was
hoped that such substantial
support might be received
from ^{the} other Educational &
Scientific interests in the city,
as would justify further
action being taken in the matter.
The Committee having the
matter in hand were ~~and~~
~~requested~~ requested to make
a further report at the next
regular meeting.

Mr. Lumsden read a very
interesting letter from ~~in~~
on the subject of producing
artificial Mirage effects
and several photographs
which had been presented

by me — were examined.

Mr. Collins was requested
to reproduce these experi-
ments before the Society

The cash incidental thereto
to be paid from the Society's
funds —

A discussion ensued on the
planet ψ 2. The president
giving an interesting résumé of
the history of the discovery of
this planet, which was stated
to be of the 11 mag.

Mr. Collins stated that the
parallax had been determined
as —

Mr. Arthur Hawley was then
requested to read a paper
on the Ptolemaic System of
Astronomy, which was
followed by an interesting
discussion —

The meeting then adjourned

John A. Gale
Chairman

The regular meeting of the Society was held in the lecture room of the Canadian Institute on 15th inst -
The President in the chair -

The secretary read the minutes of the preceding meeting, which were approved

The reports of meetings of Council held on 5th & 10th inst. were presented.

The corresponding Secretary read a letter from Mr. Brain stating the terms upon which this Socy. might receive accommodation in the Institute Bldg.

These would include \$15⁰⁰ per annum to cover cost of light & heating.

Moved by Mr. Erens
Secd. " " Lumden

That the views of the Council having been communicated, that the above offer be accepted.

Carried -

Report of Council Meeting
 held in Can. Soc. Nov. 10th 1900

The committee approached to consider
 the question of inviting Prof. Damond
 of Toronto reported upon the prob-
 able cost of giving the lecture —
 It was decided that it would be
 more for the Society to assume
 this responsibility without further
 investigation. The committee were
 therefore requested to obtain further
 information on the subject.

It was decided to continue the
 subscription to Popular Astronomy,
 and to subscribe for the Astro-
 — physical Journal —

CANADIAN INSTITUTE.

58 RICHMOND STREET EAST.

ALL COMMUNICATIONS

ESTABLISHED 1848. INCORPORATED BY ROYAL CHARTER 1851

TO BE ADDRESSED "THE SECRETARY."

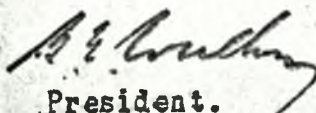
TORONTO, 19th December 1898

G. E. Lumsden Esq.,
Corresponding secretary, Astronomical &
Physical Society
Toronto.

Dear Mr. Lumsden:

I beg to confirm the arrangement entered into between the Vice President, Mr. Bain, and yourself under which it is understood that the hall room on the main floor of the Canadian Institute will be placed at your entire disposal and the lecture room at your disposal as occasions may require, and that for lighting and heating the same your Society is to pay the Canadian Institute \$15 per annum. . As it is impracticable to name a term of occupation we will merely make the provision that the Canadian Institute may end this agreement upon giving timely notice.

Yours truly


President.

(Copy)

Toronto, December 22nd, 1898.

Dear Mr. Walker,

I beg leave to acknowledge the receipt of your letter of the 19th instant, confirming the arrangement entered into between the Vice-President, Mr. Bain, and myself, under which it is understood that the hall room on the main floor of The Canadian Institute will be placed at the entire disposal of this Society, and the lecture room at its disposal as occasions may require, and that for lighting and heating the same this Society is to pay The Canadian Institute \$15 per annum, and adding that as it is impracticable to name a term of occupation, you will merely make the provision that The Canadian Institute may end this agreement upon giving timely notice, and to inform you that Mr. Bain's draft letter in this behalf having been read at the last meeting of this Society, I was formally authorized to accept, as I now do, the said arrangement.

Yours very truly,

Corresponding Secretary.

B. F. Walker, Esq., F. G. S.,

President of The Canadian Institute,

Toronto.

The regular meeting of the astronomical & Physical Society of Toronto held at the Canadian Institute Dec 27th

M^r John A. Paterson occupied the chair.

The minutes of the previous meeting were read and confirmed.

A letter from the President was read, conveying his regrets at not being able to attend the meeting on account of illness.

Sympathizing with the President the chairman then continued the business of the meeting, and called for nominations for the various offices to be held during 1899.

For Hon. President, the Hon G. W. Ross Minister of Education was nominated by M^r Elliot. There being no other nominations Mr Ross was declared duly elected.

For President: M^r Geo E Lamerton was nominated by M^r A. T. Miller; M^r Arthur Harvey was nominated by M^r Lindsay.

For Vice Presidents

D^r E. A. Meredith & M^r R. J. Stupart
were nominated by her C. H. Shortt

M^r John A. Paterson was nominated by
M^r G. G. Parscy

For Treasurer

M^r Chas P. Spaulding was nominated by M^r
Elvins and there being no other
nominations was declared elected.

For Corresponding Secretary

M^r J. R. Collins was nominated by
M^r A. F. Miller. There being no other
nominations M^r Collins was declared
elected.

For Recording Secy

M^r Thursday was nominated by
M^r Elvins and declared elected

For Librarian M^r W. B. Musson was
nominated by M^r Thursday and
declared elected

For Director of Photography M^r D. J. Howell was
nominated by M^r Elvins and declared
elected

For members of the Council The following
were nominated and declared elected
Mess DeLury, Chant, Miller, Parscy
and her C. H. Shortt.

Librarian's report was made by the secretary; several presents and exchanges, had been received since the last meeting.

Mr Lindsay reported the progress of the printing of the Transactions. The matter was well forward.

Mr Pusey reporting observations stated that there was little of interest to be observed at present on the Sun.

Some predictions of phenomena were read from the pages of Popular Astronomy.

Mr Lindsay read some notes on the new planet D2 also from Popular Astronomy, and referred to Dr Monnier's article on the sun dial of Ahaz.

Mr JH Collins called attention to a report that the bright condensation ~~was~~ seen by several observers in the nebula of Andromeda had not been seen at the Yerkes Observatory.

Mr JH Collins there read a short paper on the ^{construction} ~~reports~~ of the reflecting telescope. It had been announced that at an early

date Mr. Collins would conduct
some experiments in light but these,
would require some ^{practice} time in preparation

The paper on the telescope was therefore
substituted for this evening and
was discussed by several members

The meeting then adjourned to
meet, Jan 10th for the annual
meeting and election of officers

Arthur Hawley
Pres^t

Wm Lindsay
Sec^y