

The 7<sup>th</sup> Annual Meeting of the  
Astronomical & Physical Society  
of Toronto, held in the Technical  
School Building Jan 5<sup>th</sup> 1897

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

The minutes of the last meeting  
were read and approved

Miss M.T. Scott of Toronto was  
duly elected an active member  
of the Society

The Chairman announced the  
re-election of the following officers  
of the Society who had been nomi-  
nated at the previous meeting, unani-  
mously

Hon. President	Hon. G.W. Ross LL.D.
President	John A. Watson M.A.
Vice Presidents	Arthur Hawley F.R.S.C.
	R. F. Stupart, Director Toronto Observatory
Corresponding Secretary	Geo E Lumsden
Treasurer	J. Todhunter
Recording Secretary	Chas. P. Spaulding
Librarian	W.B. Musson <del>Thos Lindsay</del>
Asst Secy & Editor	Thos Lindsay
Members of Council	
	C A Chant B.A.
	J.H. Collins
	H.T. Dehury B.A.
	G.G. Pursey
	Rev Ch. Short M.A.



The chairman then called upon Mr Lodhwick for the financial ~~statement~~ Treasurer's report.

Mr Lodhwick prefaced his report with some timely remarks on the aims and objects of the society and presented the following statement.

Balance on hand Jan 1896	351.59	
Receipts during the year	309.18	
		660.77
Expenditure during the year	366.54	
Balance on hand		\$294.23

The detailed statement having been duly certified to <sup>the report</sup> was thereupon adopted.

Mr W. B. Messon being called upon for the librarian's report gave a brief review of the contents of the library and named the several scientific societies to whom thanks were due for donations. The report was adopted.

Mr Geo E. Lumsden the corresponding secretary briefly reviewed the correspondence carried on during the year with friends of the society in various parts of the world.

Mr Lindsay reported that the work of preparing the Transactions of the Society for the press was being carried on.



The business of the meeting being concluded, reports of observational work were received from several members. ~~These~~ ~~that~~ the weather had however been very unfavourable for telescopic work during the previous two weeks.

Under the head of notes the Chairman called attention to the peculiarity discovered in Giacobini's Comet which was that its light had increased as it receded from the Sun. a further note bearing on this phenomenon, was promised for a future meeting.

Attention was called also to the recent observations of the planet Mercury made at Flagstaff, Arizona by Percival Lowell and his staff. An article ~~which~~ <sup>which</sup> appeared in Popular Astronomy for December ~~was thought to be so~~ <sup>important that</sup> gave a full account of the work <sup>with</sup> ~~and~~ copious ~~disappearing~~ illustrations. Miss A. A. Gray was asked to prepare a synopsis of the article for the meeting of February 2<sup>nd</sup>.

The paper for the evening was then read by Mr Geo E. Hurst.



entitled "A plea for English terms  
in scientific nomenclature"

Mr. Huxton held that it was  
not necessary and was a hindrance  
to study, to introduce Latin and  
Greek words where English could  
be used and thought that the  
English language was expressive  
enough either for Botany, Electricity  
or Astronomy, which three sciences  
were especially crowded with  
Latin and Greek terms.

A discussion followed in which  
the chairman and several  
members took part.

The meeting then adjourned  
until ~~February~~ January 19<sup>th</sup> when, it was  
announced, an open meeting would  
be held to hear the annual  
President's address on  
The Progress of astronomy in 1896

John A. Peters

St. Lindsay  
for the Secy

re Mr. Harrison Jersey City elected - Carrico



The opening meeting of the  
Astronomical and Physical  
Society for ~~the~~ of Toronto, for  
the year 1897, held in the  
Electrical Room of the Technical  
School Tuesday Jan 19<sup>th</sup> 1897

The President Mr J A Peterson  
occupied the chair.

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

Letters were read from:  
Hon G W Ross LL.D. Honorary President  
of the Society.

The Department of Marine and Fisheries  
conveying the information that  
the Admiralty Board in England  
had considered unfavourably the  
proposal for unification of civil  
nautical and astronomical time.

The chairman announced that  
Prof. London, President of University  
College had appointed the evening  
of Feb. 16<sup>th</sup> for a lecture in the  
Physical room of the University on  
the "Interference of Sound"

Mr Arthur Hawley read and addressed  
the meeting briefly on the subject  
of the visit of the British Association  
to Toronto during the present year



and stated that it was the intention to invite one or two astronomers from Europe to attend the meeting. He then moved that the matter of selecting be brought before the council of the society. This was carried.

Mr. N. Harrison of Jersey City was duly elected an associate member of the society.

The librarian reported the receipt of presents and exchanges, among these was the Greenwich Nautical Almanac for 1900. Referring to this volume Mr. Lindsay called attention to the eclipse diagram for May 1900, which showed that the path of the shadow would pass through the Southern States, Georgia and the Carolinas.

Mr. G. G. Pursey presented his quarterly report of sun spot observations.

It was then moved by Mr. Lindsay seconded by Mr. Lewis that further business be suspended, that the Vice President take the chair to allow the President to proceed with the annual address.

~~Mr. Harrison then took the chair~~  
The chair was then taken by



and appropriately introduced Mr. Hardy who after a few ~~words~~ some appropriate remarks called upon the President for his address.

Mr. Patterson then read the third annual review of the progress of astronomy.

The address was listened to with the deepest attention and was enthusiastically received.

At the conclusion Mr. Allin and Dr. E. A. Merrill moved that the thanks of the Society be tendered the President. This was carried amid applause.

The chairman in presenting the thanks of the meeting expressed his own personal pleasure at listening to such an eloquently ~~and~~ worded and instructive review of the progress of astronomy for 1896.

The meeting then adjourned.

John A. Galt  
Pres<sup>t</sup>

Chas. P. Spang  
Rec. Secy



The third meeting of the Astronomical and Physical Society of Toronto, held in the Technical School Bldg Feby 2<sup>nd</sup> 1897.

The President Mr. John A. Paterson M.A. in the chair 26 members present.

The minutes of the previous meeting were read and confirmed.

Communications were read from Dr. Wadsworth; and Mr. <sup>A. H. Clark, Cleveland, O.</sup> W. Park enquiring for a copy of the Society's report.

Mr. A. Elvin drew the attention of the Society to the announcement of the death of Mr. T. G. Elger, one of our respected Corresponding members and an Author of considerable note.

The Corresponding Secretary announced that he had received from Dr. Fleming a copy of the London Times dated 9<sup>th</sup> Jan'y containing an article on the Muification of Juice - The mention being then before

*Observations* Mr. G. G. Pursey presented his report on Sunspots.

Mr. Lumsden read a <sup>meteorological notes</sup> memorandum relating to a severe storm which took place recently in Peru.

*Adversus* Mr. Pursey read an article from Prof. S. Thompson on light visible and invisible referring particularly to the



Röntgen Rays.

Mr. Elvins <sup>proposed</sup> ~~referred~~ some questions on the <sup>Rotation of the bodies of the Solar system</sup> ~~of the bodies of the Solar system~~ & rapid movement of sunspots &c, which in a short discussion were referred to a later meeting.

Mr. J. R. Collins read a short paper from Prof. Keeler, on the features of the moon:-

Moved by Mr. Lumsden and seconded by Mr. Harvey That the Editor of the Society's Transactions is hereby authorized to insert in the report of the last meeting a sketch of the transactions relating to the Unification of June carried

Miss Ada Gray <sup>Mr. Lovell</sup> then read a paper <sup>Rotation & Libration of</sup> on Mercury, illustrated by a number of diagrams on the blackboard:-

The paper was then discussed by Messrs. Harvey, Lumsden, Lumsden and others.

The Chairman announced Prof. London's lecture in the Univ. College for next meeting, Feby 16<sup>th</sup> 1897 @ 20 o'clock

There being no further business the meeting adjourned

John A. Galester / <sup>Chas. Spaulding</sup> / Rec. Secy

Chairman -



A lengthy discussion followed the reading of the paper and Miss Gray's descriptions of the drawings made at the Lowell observatory. The members were not unanimous in accepting the conclusions drawn, principally that the planet did not rotate upon its axis in short period.

M<sup>r</sup> Harvey thought that fuller evidence should be deduced, for example an examination of the markings on mercury when on the west side of the sun, the Lowell drawings having been made when the planet was evening star and east of the sun.

M<sup>r</sup> Elind pointed out that if the planet did not rotate, still the great libration to which it was subject, due to the ellipticity of the orbit, might very easily have given rise to the old conclusion, drawn from displacement of the markings, that there was axial rotation similar to that of the Earth.

M<sup>r</sup> Lindsay reviewed an essay written in 1832 by Prof Coakley of New York, in which a mathematical demonstration was given of the very great probability at least that mercury did rotate in short period, notwithstanding statements to the contrary, which had shortly before been made, and for the first time, by the distinguished Italian astronomer Schiaparelli.



~ 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*

**PHYSICAL ROOM, UNIVERSITY COLLEGE**

QUEEN'S PARK

**TUESDAY, FEBRUARY 16th, 1897,**

AT 20 O'CLOCK

**Prof. J. LOUDON, M.A., LL.D., etc., President of University  
College, will lecture on**

**"THE INTERFERENCE OF SOUND"**

**The Acoustic Apparatus of the College will be used in illustration.**

**CHAS. P. SPARLING,**

*Rec. Secretary.*



A meeting of the Council was held, in the office of the President, on the 9<sup>th</sup> February 1897 at 16 o'clock

Mr. John A. Paterson, President in the chair

On motion it was resolved to print Dr. Watson's paper on the Calendar in full if approved by the President.

The Secretary reported that it would cost twenty dollars for 500 copies of Miss Proctors sketch of the Solar Corona to be used as a frontispiece in the transactions of the Society for 1896, and on motion the Secretary was instructed to submit the matter to Mr. A. F. Miller for his opinion as to colors and scientific value - carried

The Treasurer was instructed to pay to the Assistant Secretary the sum of fifty cents to cover the cost of the Nautical Almanac for 1855 recently purchased

The President of the Society presented through the Council a handsome Bookcase for the Library thus filling a want in our accommodation for the increasing stock of books and pamphlets.

On motion of Messrs. A. Harway and G. G. Pursey the Librarian was instructed to spend the sum of twenty five dollars in binding - carried



Moved by Mr. A. Harvey and seconded  
by Mr. Musson That in view of the  
fact of the formal opening of the Yerkes Observatory  
at Lake Geneva Illinois, being set for a  
date when the members of the British Assn.  
can attend, after their Toronto Meeting, it  
might be pleasant and desirable to ~~invite~~ <sup>invite</sup>  
some distinguished European Astronomers

The Astronomical and Physical Society  
of Toronto hopes therefore that the local  
Executive of the British Association may  
see their way to intimate to the General Secretary  
their wish that one or more invitations  
be sent to leading continental Astronomers.

The names of Schiaparelli of Milan,  
Tacchini of Rome, Terby of Louvain, Belgium  
Wessner of Lucerne, suggest themselves  
to this Society but they by no means wish  
to interfere with any nominations that  
may be made by the Executive in England

— Carried

The meeting then adjourned.

Chas. Sparling  
Sec. Assn.



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Open meeting of the Astronomical &  
Physical Society of Toronto, held in  
Physical room of University College  
July 16<sup>th</sup> 1897

The President Mr John A Peterson M.A.  
occupied the chair.

The minutes of the previous meeting  
were read and confirmed.

Further the chairman then stated that  
the usual business of the regular meeting  
would be postponed as the members had  
met on this occasion for the special  
purpose of hearing a lecture on "The  
Interference of Sound" by Prof London,  
President of University College.

The lecture and experiments were then pro-  
ceeded with, Prof London taking great  
pains to make everything clear ~~was~~ step  
by step. The apparatus of the University  
was used for the experiments, and also some  
instruments made especially for the lecture.

At the conclusion the chairman presented  
the thanks of the society and friends to  
President London, ~~who had~~ and to  
Mr Plastert who had assisted in the experimental  
work.

The meeting then adjourned to meet on March 2<sup>nd</sup>  
in the Technical School.

The Secretary  
for the Recording Society



The regular meeting of the  
Astronomical & Physical  
Society of Toronto, held  
March 2<sup>nd</sup> in the Technical  
School Building

The President Mr John A.  
Paterson M.A. occupied  
the chair.

The minutes of the previous  
meeting were read and  
confirmed.

Letters were read from :-  
The Secretary of the Royal Society  
of Canada calling attention to  
meeting at Halifax June 21-26

From Dr W S Harrison of Keewau, Ont.  
describing a meteor and sun-  
dog observed by him

From the Howell Book Company,  
quoting prices on astronomical  
publications.  
The list was referred to the  
Council.

Mr Napier Dennison, of  
the Toronto Observatory, was  
duly elected an active  
member of the Society.  
Mr Neil Matheson of Toronto  
was nominated for membership  
by Mr J R Collins and Mr Hindman



Reports of observations were received from Mr. Lumsden and Mr. Pursey.

Mr. Lumsden reported having observed a dark aurora on Feb. 27<sup>th</sup> at ~~some~~ one o'clock. The fringe of the aurora had assumed stars to be visible through it but the central dark part had obscured the stars.

The President read a letter from Dr. Garnier of Hankow who had forwarded a paper on Comets with special reference to the formation of the tails. Discussion of the paper was ~~deferred~~ postponed.

Mr. Arthur Harvey read some preliminary notes on "Foci of Solar activity" based upon data extracted from the journal of the Station Spectroscopic Society and illustrated by a chart showing that the disturbed areas on the sun appeared to resemble the belt formation on Jupiter. This Mr. Harvey stated was the first chart of the kind made, and the subject would be continued with reference to meteorological and magnetic phenomena, especially the members were invited to attend



the meeting of the Canadian  
Institute on March 6<sup>th</sup> when  
a more lengthy paper on the  
general subject would be  
read.

There after a brief discussion  
the meeting adjourned until  
March 16<sup>th</sup> when the Society's  
lecture slides would be  
shown.

Arthur H. Harvey }  
R.P.

the hundred  
for the Resolutions



The regular meeting of the  
Astronomical & Physical Society of  
Toronto held March 16<sup>th</sup> 1897  
in the Terrence school Building.

The <sup>vice</sup> President Mr. John Arthur  
Harvey occupied the chair

The minutes of the previous  
meeting were read and  
confirmed.

Mr. Neil McLeod of Toronto was  
duly elected an active member  
of the Society.

The matter of electing a delegate  
to attend the meeting of the  
Royal Society of Canada to be  
held at Halifax was introduced,  
and the assistant secretary was  
asked to prepare a synopsis  
of the work of this Society during  
the year 1896, but the appointment  
of a delegate was deferred.

It was moved <sup>by Mr. Lewis</sup> and seconded by  
Mr. Masson that Mr. D. J. Powell  
be placed in charge of the  
Society's lantern slides and photo-  
graphs. This was carried.

A letter was read from Mr. Debeny  
secretary of the Meaford Society re-  
questing the loan of the slides



This was referred to Mr. Howell, permission being given him to send some of the slides to Newport.

Mr. G. G. Pursey reported his solar observations and called special attention to the large proper motion of a spot ~~observed~~ which he had closely observed from Saturday March 10 to 15<sup>th</sup>.

Mr. Hawley read a short note on his solar researches following up the theory advanced regarding the rotation period and the effect of solar disturbances on terrestrial magnetism.

Some extracts from Ptolemy's astronomy were read relating to phenomena to be observed during the next fortnight.

The chairman then called upon Mr. Elvins and Mr. Howell who had made arrangements for an exhibition of the Society's lantern slides. These were very successfully shown on the screen.

It was announced that at the next meeting Dr. Merdith would read his paper on the November meteor of 1832-3.

The evening then adjourned.

John A. Salem  
President

Thos. Hendry  
for the Secretary



The regular meeting of the  
Astronomical & Physical Society of  
Toronto held March 20/97 in the  
rooms, Technical School Building

The President Mr John A Paterson M.A.  
occupied the chair.

The minutes of the previous meeting  
were read and confirmed.

The subject of appointing a delegate  
to attend the meeting of the  
Royal Society at Halifax was  
discussed but no action taken

Mr Lindsay stated immediately on  
the completion of the transaction a  
synopsis would be prepared to be  
forwarded to the Royal Society.

Mr Arthur Hawley referred to a minute  
of Council under the Presidency of Dr  
Harriet Smith concerning the adaptation  
of a seal <sup>for the Society's official documents</sup> and ~~seal~~ offered to donate  
the body and stand of the apparatus for  
making impressions, as soon as a design  
would be decided on by the committee.

Mr Musson reported the exchanges received  
since the last meet and also presented  
to the Society several volumes of the  
Transactions of the Brit. Association in the  
early years of its existence.

The thanks of the Society were due to  
Mr Musson for these additions to the  
library



under the head of notes and queries Mr G. L. Pursey ~~was~~ asked some questions regarding ~~some~~ the ~~theory~~ theory of sound, particularly as to the explanation of crescents and dimenados. He remarked that some tones ordinarily low, could be heard at a much greater distance and more beautifully than other tones stronger, apparently much greater in volume.

Mr Lidday said he would endeavour to have Mr Pursey's questions ~~answered~~ answered by some member of the society familiar with the subject.

Among predictions of phenomena there was noted an occultation of the Pleiades by the moon on the evening of April 5<sup>th</sup>, which the members were requested to observe if possible.

The paper for the evening was read by Mr E. A. Meredith L.H.D. on "The November Meteors of 1832".

Mr Meredith had a distinct remembrance of the great display of that year, being then at school in Ireland. The paper dealt with the history of the November meteors as studied by the great astronomers of this century, the whole forming an interesting chapter in meteoric astronomy. Mr Meredith in dealing with the effect which the planet Uranus had had on the meteor swarm pointed out that

Reverend  
Meredith



the retrograde motion of the planets must have been caused by Uranus pulling them back as it were, as opposed to a pull in the same direction as the planet was travelling.

After the paper an interesting discussion followed the reading of the paper, in which several members took part.

Mr Hawley read some notes also on the general subject.

It was then announced that at the next meeting Mr A. F. Miller would read some notes on the method of determining the wave lengths of light.

J. Lee G. Galester  
Pres<sup>t</sup>

Wm. Harding  
for the Sec. Lady



The regular meeting of the  
Astronomical & Physical Society  
of Toronto held April 13<sup>th</sup> in  
the Technical School building

The President Mr. John A. Paterson M.A.  
occupied the chair

The minutes of the previous meeting  
were read and confirmed.

The Assistant Secretary brought before  
the meeting the question of providing  
a frontispiece to the volume of Transactions  
now nearly ready for issue. He had received  
from Mr. Napier Denison a copy of a  
photograph of ~~the~~ a flash of lightning  
taken by Mr. H. B. Lepray of Toronto, and  
which was not only a remarkably fine picture  
but one possessing a certain scientific  
value. It was decided to use the  
photograph as a frontispiece, Mr. Lepray  
being willing that this use should be  
made of it.

The Librarian read an interesting  
resumé of the contents of the various  
exchanges which had been received.

~~At this~~ Mr. Arthur Harvey referring to an  
announcement <sup>report</sup> which had recently appeared in the  
press that the distinguished Italian astronomer  
Schiaparelli was deceased, stated that this  
was erroneous; one of the same name had recently  
died but not the great observer.



Account of Malachy Hitchins from the Dictionary  
of National Biography <sup>(extracted by my nephew  
Anthony & the St. Mary  
Kilpar)</sup>  
Hitchins, Malachy (1741-1809), astronomer, son  
of Thomas Hitchins, was born at Little Trevisick,  
Gwennap, Cornwall, and was baptised on 18 May  
1741. His mother was a sister of Thomas Martyn,  
the compiler of a map of Cornwall, and Henry  
Martyn was his cousin. According to  
Polwhele, Hitchins when a boy worked as a  
miner, but went to Exeter to assist Benjamin  
Down in the construction of his map of  
Devonshire, which was published in 1765.  
Hitchins had previously contributed  
mathematical replies to 'the Ladies' Diary'  
for 1761. In December 1762 he was residing  
at Bideford. On 10 Oct. 1763 he matriculated at  
Exeter College, Oxford. Polwhele says that the  
expenses of his university education were  
met by his wife, Joanna Hawkins, whom  
he married on 10 Jan. 1764 at Buckland  
Prewer, Devonshire. Hitchins did not,  
however, graduate B.A. till 27 Feb. 1781; in  
1785 he was incorporated at St. John's College,  
Cambridge, where he graduated M.A. in the  
same year. In 1767 he obtained an intro-  
duction



duction to Reville Maskelyne and became  
computer at Greenwich. For some time he  
resided at the observatory, and during 1769  
observed the usual stars and planets, and  
the transit of Venus (Hitchins's observations  
are recorded in Maskelyne, Observations made  
at Greenwich, i. 151-62). In 1768 Hitchins became  
computer, and in this capacity verified the  
calculations for the 'Nautical Almanack,' a  
work which he performed till his death.  
While at Greenwich he entered Holy Orders,  
and removing to Exeter was for a short  
time vicar of Hennock. On 6 Nov. 1775 Bishop  
Keppel presented him to the vicarage of  
St. Hilary, Cornwall, and on 23 May 1785 to that  
of Gwinear. Hitchins retained both livings  
till his death, which took place on 28 March  
1809 at St. Hilary, in the church of which  
parish he was buried.

Hitchins was a friend of Polwhele, whom he  
assisted in his 'History of Cornwall,' and of  
Davies Gilbert. The reputation which the  
'Nautical Almanack' obtained was largely due  
to



to his care, and after his death there was a marked deterioration (Nature, ix. 123). Hitchin's other publications consisted of contributions to the 'Annual Register', the 'Philosophical Transactions', and 'Archaeologia' (for details see Bibl. Cornub.) Polwhele states that he translated the 'Hercules and Leander' of Musaeus into English verse when a young man. Three letters from Hitchin to John Croesley are preserved in Addit. Ms. 16947, pp. 25-7. By his wife Hitchin had four sons. The eldest son, Richard Hawkins Hitchin (1764-1827) was a fellow of Exeter College, Oxford, and rector of Baverstock in Wiltshire. The youngest, Fortescue Hitchin (1784-1814), born at St. Hilary on 22 Feb. 1784, became a solicitor at St. Eves, and died at Marazion on 1 April 1814. He published: 1. 'Visions of Memory, and other Poems', Plymouth, 1803. 2. 'The sea shore, with other Poems', Sherborne, 1810. 3. 'The Tides of Cornubia; a Poem', Sherborne, 1812. He was also author of some fugitive pieces, and compiled material for a history of Cornwall, which after  
his



his death was edited by Samuel Brew, and published in 1824. His poems are praised for their 'judgment, vigour, and elegance' in the 'Gentleman's Magazine' (1814, ii. 86)



13th April, 1897.

Dear Dr. Nowcomb,

Upon the fact of your retirement from the position of Superintendent of The American Ephemeris and Nautical Almanac Office being announced at the meeting of this Society held this evening, I was, by Resolution, supported by addresses from several officers and unanimously adopted, directed to convey to you, as now hope to do in an acceptable manner, a due sense of this Society's obligations to you for many acts of courtesy and kindness, and to express its wish that you shall long be spared to enjoy a well-earned rest from the always important and not infrequently arduous duties of your high position.

I was further to say that this Society begs, with due modesty, to assure you of its high appreciation of the services you have, during a useful life, rendered to the Science of Mathematical, Descriptive, Observational and Nautical Astronomy.

Believe me,

Dear Dr. Nowcomb,

Faithfully yours,

Simon Newcomb, Esq., LL.D.,

Corresponding Secretary.

Etc., Etc., Etc.,

Washington, D.C.



Mr G. G. Pursey in reporting his observations of the sun said that for some time past there had been few faculae noticeable on the disc.

Some discussion arose regarding the recent snow storm and the peculiar appearance of the snow. Mr R. F. Shepard stated that on the campus of the university the snow appeared to lie in little balls, due to the driving of the particles before the wind. Some observers had reported that the snow fell in lumps, reasoning from the appearance described.

Mr Harvey referred to the great utility of seismological instruments for the detection of those slight tremors in the Earth which are much more frequent than commonly supposed.

Mr Shepard said that the establishment of a set of these instruments was being now considered by the authorities of the observatory.

Mr J. R. Collins read some notes on physical questions, discussed in the London lectures, having special reference to the theory of light.

Mr A. F. Miller then read the first part of a paper on the "methods of measurement of wave lengths of light" beginning with the early theories re-



regarding the phenomenon of light the  
 history of the subject was briefly  
 sketched and interference of light  
 explained. This was the special  
 phenomenon which the wave theory  
~~explained~~ accounted for one which  
 no other theory could account for.  
 At this point Mr Miller introduced  
 an ~~an~~ easily made apparatus for  
 showing diffraction or the turning of  
 light around a corner. In one end  
 of a tube is a narrow slit, the same  
 in the other end. Directed ~~to~~ <sup>at</sup> ~~the~~ <sup>the</sup> ~~eye~~  
 of light the tube is brought to the eye  
 and rays on each side of a narrow  
 band of light are seen alternate light  
 and dark spaces. This was due to  
 interference and a close study of the  
 phenomena exhibited would enable us  
 with the application of simple geometric  
 principles to measure the lengths of the  
 light waves. The actual process would  
 be discussed in the second part  
 of the paper.

The hour being then late Mr Miller  
 was requested to continue the subject  
 without any break in the time and  
 it was arranged that he would read the  
 second part of the paper at the next  
 meeting to be held April 27<sup>th</sup>  
 the meeting then adjourned

Arthur Haewer  
 V.P.

J. H. Lindsey  
 for the Secretary.



The regular meeting of the  
Astronomical & Physical Society  
of Toronto held April 27 1897 in  
the Technical School Building

The Vice President Mr Arthur Hawley  
occupied the chair

The minutes of the previous meeting  
were read and confirmed

The volume of Transactions for  
1896 was laid on the table  
Copies were distributed to the  
members present.

Mrs Balmer of Toronto, was  
nominated for active membership  
by Miss Gray and Mr Lindsay

The corresponding secretary read  
a most cordial letter from the  
Director of the Paris Observatory  
concerning the transmission of  
several photographs of the lunar  
surface taken with the great  
telescope of the ~~Paris~~ observatory.  
These were shown to the members  
and greatly admired. It was  
the unanimous voice of the  
meeting that the secretary  
write to the donors and convey  
the sincere thanks of the Society.



Mr Lumsden laid on the table a copy of a photograph of the late Dr Donaldson of Fergus. also a copy of the American Nautical almanac of 1866 which Mr Crawford of Fergus had forwarded. It was announced that Dr Donaldson's telescope is now offered for sale.

The librarian reported presents received since last meeting. Among these were four copies of lunar photographs from Lick observatory part of the series which is being specially prepared to show the lunar surface on a very large scale.

Mr G G Pursey reported that no spots had been seen on the solar disc since April 21<sup>st</sup>

Mrs Craig reported having observed a fine aurora on the evening of April 1<sup>st</sup>, the same occurrence which had been observed by other members and reported at the previous meeting.

Mr Lumsden referring to the coming visit of the British Association stated that he had received a letter from Sir R. Ball in which ~~was~~



~~the~~ Sir Robert regretted that he would be unable to visit Toronto this year. ~~and some~~

The chairman then called upon Mr. A. H. Miller to continue his paper on the measurement of wave lengths of light.

Mr. Miller proceeded to show how the study of diffraction phenomena led to a method of measuring a wave length. The geometric construction involved was clearly shown and an example given of a measurement made by Mr. Miller with his own apparatus. The principles of the spectrometer were shown and ~~the instrument~~ illustrated by a diagram. Here Mr. Miller pointed out that although his own result agreed with the measurements by the best authorities he could not always expect such success as the spectrometer used by him was not nearly so delicate an instrument as those in use where the work of measuring wave lengths is continually carried out.

At the conclusion of Mr. Miller's paper the chairman expressed his appreciation and that of the meeting of the efforts ~~made~~ that had been made to render the subject clear. The several



diagrams which had been used in the course of the two lectures were presented to the Society.

It was then announced that at the next meeting Mr Napier Denison would read a paper on the "Self recording air-barometer", illustrated by lantern views.

The meeting then adjourned

John G. Calver  
Pres<sup>t</sup>

Thos. Henderson  
for the Secy



The regular meeting of the  
Astronomical & Physical Society  
of Toronto held in the Technical  
School Building May 11 1897

The President Mr John A Paterson Esq.  
occupied the chair.

Mr Palmer of Toronto was duly  
elected an active member of  
the society

Letters were read from  
Mr H. Harrison of Jersey City  
Prof. Holden <sup>herk</sup> Observatories  
Prof Newcomb <sup>Washington</sup>  
and from the Berlin Observatories  
advising of the forwarding of some  
books which had not <sup>however</sup> yet  
arrived.

Mr Pusey reporting his observations  
said that since the last meeting  
he had observed a spot  
developing into a group on the  
solar disc.

In reply to some remarks by  
Mr Pusey who was somewhat  
inclined to depreciate his own  
work on the sun, Mr Havery  
stated that persistent observations  
of the kind carried out were  
always valuable and he would  
not wish Mr Pusey to allow his  
interest in the subject to abate



Mr. Lindsay reported having made some observations on sun-spots with the Collins Telescope of the new construction. He had the instrument as represented, perfectly achromatic so far as the test applied could determine, the definition being excellent, while as had been stated there was no combination of crown and flint as had always been considered necessary for achromatization. The instrument was a combination of reflector and refractor.

Further notes of observation were deferred in order to afford time for Mr. Nabier's discussion paper on "The Self-recording Air Barometer".

This paper was then read by Mr. Denison and properly illustrated by lantern slides of all the ~~type~~ instruments used in the researches ~~as~~ being conducted at Toronto observatory and of the water level gauge at the Thames River.

These were minutely described and their uses as bearing upon the weather charts were explained.

Mr. Denison stated that the air-barometer was seven times more sensitive than the ordinary mercurial barometer while the water level gauge



was many times more sensitive than either.

At the conclusion of the lecture which most thoroughly interested all present Mr. Hawley moved that the thanks of the meeting be tendered. Mr. Denison and Mr. Kelli of the School of Physical Science who had undertaken the work of projection to illustrate the subject. Mr. Hawley thought there was the best evidence of strength at the head of the meteorological service when we find members of the staff encouraged to proceed with any investigations that might bear in any way upon the ~~for~~ science generally.

The encouragement offered by Mr. Stewart the Director of the Observatory and the opportunities which he granted the members of his staff to engage in original work were surest evidence that the Toronto Observatory is occupying the high place it has long held in the world of meteorological science.

Mr. Lumsden seconded the motion and called particular attention to the excellence of the projection work in illustration of the subject of the evening. The President presented the thanks of the meeting to Mr. Denison and Mr. Kelli, after which the meeting adjourned till May 25<sup>th</sup> or 26<sup>th</sup> next.

John G. Galen  
Pres<sup>t</sup>

Robt Lumsden  
for the Secretary



The regular meeting of the  
Astronomical and Physical  
Society of Toronto held in the  
Technical School Building ~~on~~  
May 25 1897

The President Mr. John A. Paterson M.A.  
occupied the chair

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

Letters were read from

Dr. Feder, acknowledging receipt of Transactions.  
mons. Merry del Val, to the effect  
that he would endeavour to procure  
for the Society an exchange of  
publications with the Vatican Obser-  
vatory.

From Hon G. W. Ross congratulating  
the Society on its success and  
suggesting that something might be  
done towards inducing the Dominion Govt.  
to improve the Observatory.

Several formal ~~letters~~ acknowledgments  
were received from ~~various~~ institutions to  
which the Society's Transactions had  
been sent.

Mr. D. J. Howell reported progress in the  
work assigned him of putting in order  
the photos and lantern slides of the Society.  
He wished an expression of opinion  
as to whether in projecting a picture on



the screen the image should be erect or reversed.

It was decided to follow the plan of presenting for celestial objects the telescopic image on the screen.

Mr Howell also stated that he had had some correspondence with Rev Mr Campbell of Warton Ont. and had advised him to form a branch of this society in his locality.

Mr W. R. Pringle 207 Major was proposed for actual membership by Mr D. J. Howell and Mr. Thursday.

The Librarian read a brief report of the contents of exchanges received. Under

complete vols 1 & 2 Pop Astronomy the purchase of missing vols was ~~not~~  
Mr J. K. Ballant read some extracts from the Astro Physical journal.

Mr G. G. Pursey reported his solar observations.

Mr G. Craig forwarded a brief note descriptive of a meteor seen on the evening of May 16<sup>th</sup>. The meteor exploded maintaining a colour similar to that of an electric light. The path was from east to west in the northern sky, duration 4 or 5 seconds.



Dr E A Meredith called attention to the observed agreement of fact and theory regarding the temperature of the 12 13 & 14 of May. He showed by records from Europe that the temperature on those days this year had been lower than that of the days preceding and stated that the phenomenon was well known among the farmers in Germany.

Mr Lindzey reported briefly a meeting held at the residence of Dr Meredith on the evening of May 22<sup>nd</sup> when before a few friends ~~Dr~~ Dr Otto Hahn had presented an epitome of a paper on Gravitation which he had prepared. It was Dr Hahn's wish that the fact be recorded merely, that the paper had been read.

Dr Hahn was proposed for active membership by Dr E. A. Meredith and Mr Lindzey.

The Chairman then called upon Mr M. Turnbull to address the meeting in explanation of some charts which he had prepared in illustration of the appearance of the Earth's disc as an observer on the sun, also a description of a new celestial globe.



It was announced that at the next meeting Mr. Leo E. Lewiston would address the society on the subject of the work of the year with special reference to the formation of sections for practical work.

The meeting then adjourned till June 8<sup>th</sup> at 2 o'clock.

John A. Gatteson President -  
 This Sunday for the society



The regular meeting of the astronomical and Physical Society of Toronto held in the Technical School Bldg.  
June 8<sup>th</sup> 1897.

The President Mr John A. Paterson M.A. occupied the chair.

The minutes of the previous meeting were read and confirmed

Letters were read from

Mr Jas E. Gore

Garrett P. Serviss

or M.A. Vesper

and several formal letters of acknowledgement of receipt of the Society's Transactions.

The letter which had been read at the previous meeting, written by the Hon G.W. Ross to the President was by request again read and then a discussion followed on the probability of getting the Dominion Government to make some provision for a telescope which might be placed at the service of the Society.

It was finally agreed to leave the matter in its present stage with the President.

Mr Peuple 207 Major St Toronto  
and Dr Otto Hahn 147 Roxborough Ave  
Toronto were duly elected active  
members of the Society.



The Librarian presented his report of exchanges received and a brief sketch of some important papers in current publications.

The numbers of Popular Astronomy which had been ordered to complete the set had been received and the early volumes were being bound.

On motion it was decided to purchase a copy of Lockyer's "Meteoritic Hypothesis" at a cost of \$2.<sup>50</sup>

Mr. D. Howell reported that the slides and photographs of the society were being arranged and a formal report would shortly be presented. He wished to state that one slide was missing and would be glad if any member knew where it had been last used. This was a slide of the solar system after the manner of an orrery.

Observations were reported by Mr. Pursey, Mr. Phillips and Mr. Weatherbee. Mr. Weatherbee presented a drawing of some strange lights seen in the Smith Eastern sky on the evening of May 31<sup>st</sup>.

The President then called upon Mr. Howden to read some notes he had prepared on the general subject of the work of the society.



Mr. Lumsden said that he had not prepared a lengthy paper but would give his views on how the work of amateurs generally in the scientific field might be carried on. Individual effort and a division of labour were strongly urged; it was shown that the field is very wide notwithstanding what has been already accomplished and that each member should select the work which in his own opinion he could best carry out and continue in that line.

The paper was received with enthusiasm and discussed by several members. In connection therewith it was in motion decided to keep the text of Mr. Lumsden's remarks constantly before the Society.

It was further decided to hold a meeting on June 15<sup>th</sup> at the residence of the President when after some telescopic work the subject of division of labour would be taken up.

The meeting then adjourned till Thursday June 24<sup>th</sup>, the regular meeting night falling upon the day <sup>appointed for</sup> the celebration of the 60<sup>th</sup> anniversary of Queen Victoria's accession to the throne of the British Empire.



John A. Pateman For the reading Sunday  
President the hindray



The regular meeting of the  
Astronomical and Physical  
Society of Toronto held June  
24<sup>th</sup> 1897 in the Technical  
School building

The President Mr John A Paterson  
occupied the chair

The minutes of the previous  
meeting were read and con-  
firmed. Mr F. J. Campbell of Toronto was  
nominated for active membership

Letters were read from Mr  
Mr Barbour of the Leeds Astron-  
omical Society  
From Prof Holden of Lick Observatory  
From M. Paul Henry of Paris

Mr Lindsay stated that he was  
indebted to Prof. Pickering of  
Harvard Observatory for some  
valuable information required for  
the continuation of the History of the  
Greenwich Almanac

An important communication was  
received from Sir Sandford  
Fleming C. M. G. relating to the  
work of the Joint Committee on the  
unification of time. It appeared  
that several high officials in the  
United States were thoroughly in  
accord with the change proposed  
and would advocate the opening up

Mr Gibson  
of Toronto was  
duly elected  
an active  
member



of the matter again vigorously. It was proposed by Sir Sanford that a paper be presented to the British Association on this subject, and he himself would do all in his power to help. After some discussion the President was requested to prepare the text of the paper and place it with the committee for presentation at the Association meeting in Toronto.

M<sup>r</sup> D. J. Howell read a letter from the Meaford Astronomical Society thanking the Society cordially for the use of the lantern slides.

A brief report of the Stellar Section meeting was made by the President. It had been held June 15 at Walnut Road and after spending an hour in observation the members had listened with much pleasure to some remarks on the work of amateurs by Dr J. J. Watworth and Mr. Lowden.

The Librarian presented his report of exchanges received.

It was noted that news had just been received of the death of Alvan G. Clark the well known



maker of telescopes

Observations of the sun were reported by Mr. Pursey and some notes of observation of the star alpha Ursae Majoris were read by Mr. Hindray.

~~Mr. Gibson~~ Mr. A. T. Miller read some notes contributed by Mr. C. A. Chant B.A. relating to some experimental work done at Toronto University to prove that the spectral lines of the elements are affected when the elements are vaporized in a magnetic field.

Mr. Elvins read a paper on the motion of a planet in its orbit and showed that moving in a resisting medium a planet would not be retarded or accelerated in so far as its periodic time would be concerned, provided that gravitation is a pressure from without, not an attractive force.

Some discussion ensued, after which the President announced that at the next meeting on July 6 a paper on "Mars" would be read by Mr. Searling and on July 20 a paper on the solar eclipse of July 29 would be read by Mr. Hindray. The meeting then adjourned.

J. G. Pursey

Thos Hindray  
for the Secretary



The regular meeting of the Astronomical  
& Physical Society of Toronto held July 6<sup>th</sup>  
1897 in the Technical School building

Mr G. G. Pursey occupied the chair

The minutes of the previous meeting were  
read and confirmed

Mr T. J. Campbell of Toronto was  
duly elected an active member  
of the Society.

Letters were read from Sir Sandford Fleming  
having special reference to the proposed  
paper on the unification of time to be presented  
to the British Association

~~There~~ a report was received from Mr Charles-  
worth of a very beautiful meteor seen on  
the evening of Thursday July 24<sup>th</sup>.

Mr J. R. Collins had also observed this meteor  
and estimated the length of the luminous  
track made by it to be 30 degrees,  
and the duration of the light about half  
a minute.

Several members called attention to the  
beauty of the sky on evening ~~evenings~~ of  
June 30 & July 1<sup>st</sup>.

Mr G. G. Pursey reported his solar obser-  
vations and again emphasized what  
he thought ~~was~~ was the explanation of  
the faculae, that is they are something  
in the fiery envelope of the sun  
akin to the crests of storm tossed waves  
on the sea.



The librarian presented his report of exchanges he received, and read ~~the~~ <sup>a</sup> notice of this Society's work as published in the Journal of the British Astronomical Association.

Attention was called to the announcement of the death of Mr Alvan G. Clark the celebrated telescope maker.

Mr Lumsden had sent in a brief note to say that Dr J. A. Brasher of Allegheny would be in Toronto on Friday July 9<sup>th</sup> on his way to Muskoka, where he intended to remain during the summer season.

The chairman wished the members to note as being worthy of careful consideration, the effect which the network of electric wires around any locality, might have upon terrestrial magnetism.

Mr Elwood <sup>also</sup> thought that this was a question of some importance.

Some discussion arose regarding the advisability of purchasing a telescope which the Society might keep in the Technical School Building and to be ready on all occasions when there ~~was~~ might be good observing weather. This matter was thought should come before the Council at an early date.

The chairman then called upon Mr A. G. Savigny to read a paper on "Mars".



M<sup>r</sup> Savigny then read the first part of a very exhaustive paper on the planet and which was very enthusiastically received. Having finished this part M<sup>r</sup> Savigny was requested to postpone the second part till another meeting, and one month hence seemed to be the date most suitable.

It was then announced that at the next meeting, M<sup>r</sup> T. Lindsay would read a paper on the Solar eclipse of July 29<sup>th</sup>.  
The meeting then adjourned

John G. Adams      M<sup>r</sup> T. Lindsay  
Pres<sup>nt</sup>

Were invited to meet on July 13  
at the observatory



The regular meeting of the astronomical & Physical Society held July 20<sup>th</sup> in the Technical School Bldg. Toronto

The President Mr John A Paterson M.A. occupied the chair.

The minutes of the previous meeting were read and confirmed

Letters were read from Dr Veder and Sir Sanford Fleming

The Secretary was requested to communicate with Dr Veder and to solicit him to forward any papers he might have on subjects connected with the society's work

Mr Atwood was nominated for active membership by

Mr J Galley was nominated for active membership by

Reports of observations were received from Mr Harvey, Mr Lumsted and Mr Pursey. Mr Lumsted had placed his telescope at the service of members during the July evenings and some interesting observations of Saturn and Uranus had been made. The greenish colour of the disc of Uranus and had been distinctly noted and ~~two~~ two of the satellites had been seen. Mr Harvey stated ~~that he~~ <sup>thought he</sup> had observed ~~of the~~ the satellites of Saturn in the large reflector but Mr Miller ~~found out~~ stated that on



of the objects in the field and close to  
the planet was a star, easily mistaken  
for one of the moons, at a first glance

The Librarian reported the receipt of  
exchanges and among <sup>the</sup> items of ~~the~~ <sup>its</sup> ~~interest~~  
interest it was noted that Mr G. S. Thell  
formerly of Toronto University had been  
appointed to the chair of Physics in  
Colby University in Maine. Mr Thell  
had the best wishes of the Society for  
his success in his new field.

Mr. Clouet called attention to the  
connection between meteorological ~~phenomena~~  
phenomena and man's physical condition;  
in his own case he was sure from cer-  
tain indications that thunderstorms were  
in the neighbourhood not far away.

Mr. Miles referred to <sup>some</sup> ~~the~~ unusual barometric  
changes which he had noticed on the  
preceding Sunday.

A paper was then read by Mr. Lundberg  
on the Solar Eclipse of July 29<sup>th</sup>. After  
some remarks on eclipses generally the  
result of the computations by Mr. J. L. Mack  
for Toronto were given for first and  
last contact.

It was then stated that in the  
future so near as 1900 there would  
be a total eclipse of the sun  
visible in the north. It was stated  
and it was hoped that an  
expedition would be formed  
from Toronto for the purpose of



observing.  
Some discussion followed after  
which it was decided to bring the  
matter of the Expedition before the Council  
when some details might be arranged

Arthur Harvey, v. p.     Thebruden  
chairman.



The regular meeting of the  
Astronomical & Physical Society  
of Toronto held Aug 3<sup>rd</sup> 1897  
in the Technical School Bldg

The vice President M<sup>r</sup> Arthur  
Harvey F.R.S.C. occupied the  
Chair

On taking the Chair the vice-  
president stated that ~~with sincere~~  
~~regret he had to inform the~~  
~~members~~ the members  
of the society had heard with sincere  
regret of the painful accident  
which had occurred to their  
president. He was glad to be  
able to say however that M<sup>r</sup> Paterson  
was on the way of recovery from  
his injuries

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

Letters were read from  
the President

Sir Sanford Fleming

Editor of Review of Reviews

The Director of Wick Observatory

Prof. Tait of Edinburgh

Rev D. J. Caswell of Meaford

The Librarian read a list of  
the presents and exchanges received  
since last meeting.



Reports of observations of the recent solar eclipse were then received

Mr Harvey's report was read by the Secretary. He had noted the last contact but under very unfavourable circumstances, the sky being cloudy and the sun's limb not well defined.

Mrs Savigny had observed in the large equatorial of the observatory, but although <sup>some good</sup> views were had while the eclipse was in progress it had been impossible to note first or last contact accurately.

This was the experience of Mr W. Miller, Mr G. G. Pursey and others.

Mr Hindray stated that to him the day had been one of the most pronounced disappointments, but such we had to put up with.

Mr J. Maybell reported having observed a very brilliant meteor on the evening of Aug 2<sup>nd</sup> about 10 o'clock while out on the lake. It passed from Ursa Major through Leo Minor to the horizon leaving a luminous track of a distinctly greenish tint.

Mr J. Connon of Stora had been more successful and had sent a photograph of the sun at about middle eclipse



Some discussion arising regarding the colour of meteor tracks the chairman stated that the green tint might possibly be due to nickel vaporized as the body passed through the atmosphere.

Several of the members had noted the peculiar appearance of the sky recently, the clouds being banked around the horizon while overhead was clear. Mr. Elms thought that the electric system of cities had something to do with what appeared to be a fact that storms avoided great populous centres.

Rev. Mr. St. Short reminded the members that the well known Mr. Wiggint of Ottawa had always declared that cities where electricity was largely employed would be free from violent storms. The chairman thought the ~~local~~ features of the surrounding country had more to do with the storms than the electric power system.

Mr. H. B. Mussion read an article from "Popular Astronomy" dealing with the value of the work ~~is~~ done in stellar astronomy.



Mr. Lumsden called attention  
 to several interesting phenomena  
 shortly ~~to be observed~~ <sup>new</sup> out, hoped  
 that the members would endeavour  
 to observe. Among these were  
 a minima of Algal; and  
 several occultations by the moon;  
 the most interesting of the latter would  
 be an occultation of the Pleiades  
 between 3 and 4 o'clock on the morning  
 of Aug 20<sup>th</sup>

After some further discussion  
 the meeting adjourned till Aug 17<sup>th</sup>

God bless you  
 for the lecture

G. G. Pursey

## Astronomical and Physical Society.

The Regular Meeting of the Society will be held

**TUESDAY, AUGUST 17<sup>TH</sup>, 1897,**

at 20 o'clock at the Magnetic Observatory, Queen's Park, by  
 permission of the Director, Mr. R. F. Stupart.

Members of the British Association for the Advancement  
 of Science are invited to be present.

CHAS. P. SPARLING,

*Recording Secretary.*



The regular meeting of the astronomical  
& physical society of Toronto held  
August 17<sup>th</sup> 1897 in the ~~technical~~  
~~lecture building~~ magnetic observatory  
by permission of the Director.

M<sup>r</sup> G. G. Pursey occupied the chair

The minutes of the previous meeting  
were read and confirmed

Letters were read from

M<sup>r</sup> D. E. Hadden Acta Iowa

S. J. J. Wadsworth Simcoe

The librarian reported the receipt  
of a copy of "The Handbook of Canada"  
issued for the British Association  
for the Advancement of Science.

The thanks of the society were voted  
to Prof. Mavor who had donated  
the volume.

Reports of observations were received  
from M<sup>r</sup> Pursey, M<sup>r</sup> Harvey, M<sup>r</sup> Elliot  
and M<sup>r</sup> Savigny

M<sup>r</sup> Savigny handed in a memorandum  
of an observation of two meteors seen on the  
evening of Aug 11<sup>th</sup> -

M<sup>r</sup> Elliot stated that he would at  
the next meeting <sup>of the lunar section</sup> report at length on  
some observations he had made of  
Aristarchus and Herodotus.



After some discussion the meeting  
adjourned to the lawn of the  
Observatory where telescopes  
had been placed in position and  
also to the dome where Mr. H. M. M. had  
prepared the large equatorial  
of the observatory.

Three inch telescopes had been,  
kindly brought to the meeting  
by Mr. Clark, Mr. C. T. Gilbert and  
Mr. S. Michael.

Excellent views were had of Saturn  
and some stellar objects in these  
telescopes ~~outside~~ and the ~~rest of~~  
rest of the evening was spent  
in observation.

The meeting adjourned at a  
late hour to meet Aug 31  
in the Technical School

John A. Paterson  
Pres<sup>2</sup>

Wm. Lindsay  
asst secy



The regular meeting of the  
Astronomical & Physical Society  
of Toronto held Aug 31/97  
in the Technical School Bldg., Toronto

The President Mr John A Paterson M.A.  
occupied the chair.

The minutes of the previous meeting  
were read and confirmed.

Mr C Corry of Toronto was  
nominated for active membership  
by Mr John the President

~~Mr~~ Geo Sexton of St Catharines was  
nominated for active membership  
by Dr A.D. Watson

Letters were read from Dr M.A. Vassar  
of Lyons N.Y. and covering the  
transmission of a copies of his  
paper on "Ice Jams" read before  
the American Association for the  
Advancement of Science

From the Secretary of the  
Antonio Alzate Society of Mexico  
addressed to Dr Watson and conveying  
his entire agreement with the views  
expressed by Dr Watson in his  
paper on the Reformation of the Calendar.

The librarian reported the receipt of  
recharges, among which were



four volumes of the publications of the observatory of the Vatican. These were the volumes which Mons. Merry del Val had undertaken to have forwarded to the Society from Rome.

The special thanks of the Society were due to the authorities at the observatory for this mark of kindness.

Observations of the sun were reported by Mr G. G. Pursey.

An observation of the occultation of the Pleiades on the morning of Aug 20 was reported by Mr Arthur Hawley.

Mr Hawley sketched on the black board the position of the stars with respect to the moon at the time of occultation and referred to the always interesting study of the moon's motion among the stars.

Some discussion followed regarding the importance of observations of this kind.

The president addressed the meeting in review of the circumstances attending the reading of the paper on the unification of time before Section A of the British Assn. Mr Lunden followed in reference to the paper on the same subject which he had read before the Geographical Section.



It was the unanimous voice of the meeting that the interests of the society in this connection had been well looked after and it was decided to bring into the Transactions for publication a full report of these proceedings.

Mr. Harvey addressed the meeting on the subject of magnetic observations and related the <sup>following</sup> result of an interview he had had with an authority in these matters. It seemed to be the general opinion that the ~~best~~ splendid record of Toronto observatory could not possibly be continued under the existing conditions of the Trolley system of electric wires. In view of this Mr. Harvey thought it would be advisable to bring this matter before the Council of the society and to appoint a committee which might be ~~appointed~~ ready at any time to act so as to prevent the removal of the Toronto observatory to any place other than the immediate vicinity of Toronto but at a safe distance from the electric system. A formal motion to this effect was carried.



Mr. Hendray briefly reported his  
 experience of one of the meetings  
 of Section H of the S. Assn. and  
 it was thought generally that as  
 many of the members or had attended  
 the meetings might write up their  
 notes in form for embodiment in  
 the Transactions.

The meeting then adjourned to  
 Sep 14 when it was announced  
 Mr. Sanjour would read the  
 second part of his paper on  
 Mars

John A. Paterlini Mr. Hendray  
 Pres



The regular meeting of the  
Astronomical & Physical Society  
held Sept 14<sup>th</sup> in the Technical  
School Toronto

The President Mr John A Paterson  
M.A. occupied the chair.

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

Mr C Bareilly of Toronto and  
Dr Geo Sutton of St Catharines  
were duly elected active members  
of the Society

It was moved by Mr Geo E  
Lumsden and seconded  
by Mr A Hawley that this  
Society apply for affiliation  
with the British Association for  
the Advancement of Science  
This was carried.

Mr Lumsden stated that an  
offer had been made by a  
friend of the Society, to donate  
a set of the Scientific American  
to the Society's library.

It was moved by Mr Hawley  
and Mr Lindsay that the  
offer be accepted and the  
thanks of the Society conveyed to  
the donor by Mr Lumsden.



Mr Lumsden also stated that a set of the English Mechanic could probably be purchased at a very reasonable price from a gentleman in the city. <sup>It</sup> was thought ~~almost desirable~~ that a set of this great work would be of the utmost value and Mr Lumsden was requested to procure further information as to cost.

The Librarian reported the receipt of exchanges received. A circular letter had been received from the Paris Observatory evidently concerning the transmission of a second issue of the lunar photographs published by the Observatory. These had not yet arrived.

Observations were reported by Mr Pursey and Mr Elms. Mr Elms read some notes on observations of the lunar surface, particularly of Herodotus and Aristarchus.

M<sup>rs</sup> Sauney reported observations of two meteors seen on the evening of Sep 11<sup>th</sup>

Rev J Goswell President, of the Newport Astronomical Society addressed the meeting briefly on the line of work pursued at Newport and gave a most



encouraging account of the work  
being done there

Mr. Elvins referred to a phenomenon  
observed in waves of water namely  
that as a wave, produced by a  
splash in the water, passed outwards  
in lengthens considerably. Some  
discussion arose regarding the  
cause of this.

Mr. G. S. Fairley was then called  
upon to read the second part  
of a paper on the plant mass  
the work of Prof. Howe at Flagstaff  
was reviewed and his general conclusions  
accepted.

Some discussion followed during  
which the President referred to  
the position occupied by Mr. Howe  
in the Astronomical world, one  
of perfect independence.

It was the meeting then adjourned  
this Sept 28 at 10 o'clock when  
it was announced Mr. Brewster  
would read some notes on  
"The Nautical Day".

John A. Palermo  
Paese

Richard D. D. D.



The regular meeting of the  
Astronomical & Physical  
Society of Toronto held  
Sept 18<sup>th</sup> in the Technical  
School Building

The President Mr. John A  
Paton M.A. occupied the  
Chair.

The minutes of the previous  
meeting were read and  
confirmed

A letter was read from Dr  
H. A. Reed of Lyons, N.Y.  
intimating that he would be  
shortly in the neighbourhood  
of the Toronto and would be  
pleased to meet the Society  
in a discussion of the Aurora  
and of Ice action in the lake  
region. The secretary was requested  
to arrange for a meeting at  
a date suitable to Dr Reed.

A communication was received  
from Miss Brown president of  
the Solar section of the British  
Astronomical Association  
calling attention to the total  
solar eclipse of January 1898  
and to the arrangements that  
were being made for a trip to  
India where the phenomenon would



be visible

The report of the meeting of Council was read and on motion adopted, Mr Hawley dissenting from the motion as out of order.

Some discussion arose regarding the proposed removal of the Society's library to another room this having been declared necessary by the Principal of the Technical School. The matter was left in the hands of the Secretaries and Librarian.

Reports of observation were received from Mr Parsy and Mr Hawley; Mr Hawley illustrated the method of determining the radiant point of a meteor stream.

Among predictions of phenomena it was noted that on the evening of Oct 13 there would be an occultation of the Pleiades by the moon. It was hoped that the members would endeavor to observe this. Mr R. T. Shapart very kindly offered to place the large telescope of the Observatories at the service of the members on that occasion.



M<sup>r</sup> A. Ellis stated that the Society had lost a corresponding member by the death of M<sup>r</sup> J. E. Peal of Shibragar, India. M<sup>r</sup> Peal had on several occasions favored the Society with communications and had always been interested in its welfare.

Among notes and queries the President reviewed an old problem which had been recently discussed in the pages of Popular Astronomy, regarding the absolute direction taken by a body falling from a great height.

A short discussion followed after which M<sup>r</sup> Geo. E. Lundin read a paper on the Nautical Day. After a brief sketch of the early history of navigation and of the methods by which the hour of the day and the season of the year might be known by an observer of the stars, M<sup>r</sup> Lundin referred to the Nautical Day as known at present and made a strong appeal for its discontinuance and the adoption instead of the civil day in nautical as well as in astronomical reckoning. The meeting then adjourned to meet on Oct 12<sup>th</sup> at 20 o'clock.

John A. Cattermole  
Pres<sup>t</sup>

Geo. E. Lundin



THE ASTRONOMICAL AND PHYSICAL SOCIETY OF TORONTO.

A Special Meeting will be held in the Electrical Room of the Toronto Technical School, College Street, on

SATURDAY, OCTOBER 16TH, AT 20 O'CLOCK.

Dr. M. A. Veeder, of LYONS, N. Y., will address the meeting on

- (1) THE AURORA ;
- (2) ICE ACTION IN THE LAKE REGION OF NORTH AMERICA.

Members and friends are cordially invited.

The President, Mr. John A. Paterson, M.A., will preside.

CHAS. P. SPARLING,  
*Recording Secretary.*



The regular meeting of the  
Astronomical & Physical  
Society of Toronto held  
Oct 12 1897 in parlours of  
the Secretary of the Technical  
School, in the school building

The President Mr John A  
Paterson M.A. occupied  
the chair

The minutes of the previous  
meeting were read and  
confirmed.

A communication, circular no 43  
was received from Per T E Espier  
of Walsingham observatory, announcing  
that the variability of star 867 D.M.  
had been definitely ascertained.

The secretary read a cordial  
letter from Mr Joseph Pope <sup>under seal of the</sup>  
Ottawa in reference to the  
transmission of the lunar photos <sup>of the</sup>  
these had been on a previous  
occasion forwarded from Paris  
by way of Ottawa and it was  
thought they had gone astray on  
this occasion inasmuch as the  
Director of the Paris observatory  
had written to the effect that they  
had been mailed to the Society.  
No trace as yet however had  
been found.

Paris obs.



The matter of changing the place of meeting of the Society was discussed. It appeared that the room usually occupied would not be available during the school session on Tuesday evenings. The thanks of the Society were due to Mr. Howwood secretary of the school who had placed his parlour at the disposal of the Society for the evening. It was decided to suspend action in regard to change until a meeting of the Board of the school could be heard from.

The assistant secretary stated that he had received from Mr. Arthur Hawley a design for a seal for the Society's official documents. It was decided to wait until the members of the committee had sent in designs when the matter of election would be left to the council.

Mr. Lunder had prepared a list of phenomena to be observed which was read, to be subsequently inserted in the report for the press.



Mr. G. G. Pursey presented his quarterly series of ~~some~~ sketches of the solar disc.

~~Some~~ discussion arose in regard to ~~the~~ a question asked by Mr. Musson bearing upon chemical theory. Mr. Hindley thought that chemistry had been neglected more than it should have been by the Society and hoped that some of the members would revive the subject.

After some further discussion the President called upon Mr. Harvey to read the full text of his paper on Solar Magnetic disturbances; this dealt at length upon ~~the~~ a subject which had engaged Mr. Harvey's attention for some time past and which had been at a former meeting brought forward in a brief note. Diagrams and carefully prepared tables were brought forward in illustration and all tending to sustain the theory advanced that the sun has a solid nucleus with a definite period of rotation. The records of Lick Observatory had been freely drawn upon.



It was announced, that  
at the next meeting a  
paper on the retrograde  
motion of the moons of  
Uranus would be read  
by Mr. J. R. Gallis.

The place and evening  
of meeting would be  
announced in the  
press

This Sunday

Arthur Harny  
V.P. Chairman



The regular meeting of the Astronomical and Physical Society of Toronto held Oct 28 in the Technical School Building

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

The minutes of the previous meeting were read and confirmed

Mr Lumsden addressed the meeting regarding the change of night from Tuesday to Thursday. Under the circumstances it appeared that it would not be possible to hold the meetings in the room generally used on Tuesdays.

The chairman pointed out that if the society accepted the change this winter there would in all likelihood be better arrangements made next season as it was proposed to make some material changes in the building.

Mr Elliot and Mr Pursey thought that on the whole the present conditions were not satisfactory and that it would be better for the society to procure a hall entirely its own. The chairman suggested that Mr Elliot and Mr Pursey bring in a formal recommendation which could be referred to the council.

Whimsey  
on Hawley  
was also  
repeating  
within  
above



The assistant secretary stated that he had received from Mr & A Meredith a design for the society seal. The committee would ~~not~~ await a design from Mr Lumsden ~~the other member~~ and would then be able to bring forward a report.

~~The~~ Letters were read from Dr Fisher who promised to forward a synopsis of his recent lecture for publication.

From Mr Joseph Pate Under Secretary of State, Ottawa, who had kindly looked into the matter of the transmission of the Lunar Photographs from Paris, but had not been able to trace them.

From the French Consul at Montreal who also had been unable to find any reference to the receipt ~~of~~ of the pictures.

Mr Lumsden stated that he had written to Paris retaining the matter and would expect finally to receive the pictures.

A cordial letter was read from Mr Joseph Wallace of Oriskany whose work in observational astronomy had been brought to the notice of the society at a previous meeting. ~~Consequently~~ Some discussion arose on the subject of telescope definition ~~referred~~



by a reference which Mr Wallace had made to ~~the~~ this quality in his instrument a  $\frac{1}{2}$  inch. He had seen a fishing line hanging from a rod at a distance of two miles. Some of the members thought this would not be possible for a thin line. Mr Luidray recalled the definition test given by the late Dr Donaldson, namely half an inch at half a mile.

Mr M Turnbull addressed the meeting briefly, requesting that he be allowed some little <sup>time</sup> to show some maps which he had designed. The chairman found that there would be a quarter of an hour to spare on the second meeting in November.

The librarian reported the presents and exchanges received since last meeting.

Observations were reported by Mr Purser and Mr Elliot.

Mr Lumsden stated that a <sup>popular</sup> lecture on astronomy had been recently delivered at the opening of M. Maske University by Prof. A. C. Mackay. It was thought that Prof. Mackay might favour the society with a similar lecture. Hence the chairman suggesting that he be requested to do so.



Among predictions of phenomena  
 it was noted the Leonids  
 meteor showers were due on Nov 13-14.

~~and the meteor shower~~  
 It was thought advisable to  
 endeavour to observe these asteris-  
 mically on that night particularly.

After some discussion the paper  
 for the evening was read by  
 Mr J R Ballint on  
 the retrograde motions of the moons of  
 Uranus, illustrated by experiment  
 with the gyroscope and repro-  
 ductions of drawings.

It was shown that the retrograde  
 motion is a consequence of  
 the conditions outlined by the  
 nebular theory.

It was announced that at the  
 next meeting Mr Lindsay would read  
 a continuation of the history of the  
 Greenwich nautical almanac.

The meeting then adjourned

John A. Ratcliffe  
 President

Mr Lindsay



The regular meeting of the  
Astronomical and Physical  
Society held Nov 11<sup>th</sup> 1897 in  
the Technical School Bldg  
Lorain

The President M<sup>r</sup> J. A. Paterson 219,  
occupied the chair

The minutes of the previous  
meeting were read and  
confirmed

A short discussion ensued on the  
reading of the minutes with reference  
to the place of meeting. Upon motion  
the whole matter was referred to  
the Council

Communications were received  
from M<sup>r</sup> Joseph Wallace Quinn  
J. S. A. Shearer Bristford  
and S. C. Sandford, Heming

M<sup>r</sup> J. R. Collins read two interesting  
letters one from Prof J. E. Keele  
of Allegheny and the other from  
Prof. W. E. Pickering of Harvard  
Observatory bearing upon points  
raised in M<sup>r</sup> Collins paper on  
the masses of Uranus.

Several predictions were announced  
by M<sup>r</sup> Lumsden; the principal  
work for amateurs during November



To the Chairman & Committee  
of the Astronomical & Physical  
Association.

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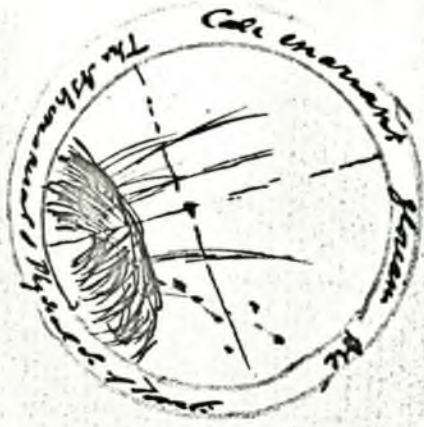
Mr Turnbull Toronto,  
has a desire to read <sup>his</sup> ~~a~~  
paper at the next meeting  
on the Arctic & Polar Re-  
gions of the Northern  
Hemisphere, and its geological  
climatic connection; with the  
present Dynamic state of  
our globe in the Solar System.

Turnbull

---

Not being able to attend  
this Evening I have sent this  
M. J.







Monday 20<sup>th</sup> Nov. 1872

Present Mr. J. A. Paterson, A. Harvey, A. Lewis  
W. B. Neusson, J. R. Collins, Ch. Spaulding, G. G. Passany

Paterson in the Chair

Reels presented by Mr. Harvey & Dr. Meredith  
spec. of ~~the~~ Smith & Co. as to prices & sketches  
Moved by Mr. Passany Sec. J. R. Collins that  
Mr. Harvey's Spectrum sketch

Thank Dr. Meredith for his design & file  
Motion of Place of Meeting & Observations

Present  
A. Lewis

Mr. Harvey, Paterson & Secy Lindsay

Dr. L. W. Smith's letter -

Accts - Chas Potter 2<sup>nd</sup> Technical School Est 27<sup>th</sup>





Rough Design for a Seal for the Astronomical  
& Physical Society of Toronto

The meridian passing through the Pole Star  
should be marked with the Longitude of Toronto  
and the parallel of latitude with the latitude  
This W. sem. to show the locus of the Society.

The colored bank is meant as a  
bank of cloud from which stream  
the Aurora barches.

It would be easy to put in some other  
northern constellations if thought advisable.

Oct. 16/97

J. A. Herdelt



It was announced that at the  
 next meeting Mr W B Messon  
 would read a paper on the  
 variable star  $\beta$  Cyg

The meeting then adjourned  
 to meet next night at 8 o'clock  
 this Wednesday  
 for the next day

G. G. Hursey



The regular meeting of the  
Astronomical & Physical Society  
of Toronto held Nov 25 1897  
in the Technical School  
Building Toronto

Mr G. G. Pursey occupied  
the chair.

The minutes of the previous  
meeting were read and  
confirmed.

Letters were read from  
Dr M. A. Ryder referring to  
the report of his lecture on  
Geology and on aurora

from Mr J. Price of Hamilton  
stating that he had made some  
discoveries which he was  
desirous of communicating.

The report from the Council  
meeting of Nov 20<sup>th</sup> was read.  
As the meeting was very small  
it was decided to let the matter  
of the Council's recommendation  
of a seal for the society stand  
over for another meeting.

Mr G. E. Hummer gave notice that  
he would move the appointment of  
a small committee to look after  
applications of other societies with



this society

Mr A Elvial called the attention of the members to the death recently announced of Mr D.K. Winder of Detroit, an associate member of the society and one who had been connected with it before incorporation and had been a prominent member of the little society out of which this had grown. Mr Elvial gave a brief sketch of Mr Winder's life work and the secretary was requested to convey to the surviving members of his family the sympathies of this society.

The librarian announced the receipt of the second set of lunar photographs from Lick Observatory. These were shown to the members and enthusiastically admired.

Among reports of observation a short press clipping was read relating to a meteor which had fallen at Birmingham N.Y. The secretary was requested to ascertain if possible ~~some~~ <sup>the</sup> facts of the case.

Mr Lindsay reported having observed the nebula of Orion in the John Bird telescope which had



been shown at the previous meeting

He also stated that he had received from the Royal Observers Greenwich some information regarding the early computers of the Nautical Almanac and which he desired to bring down in a supplementary note to the paper on the history of the almanac.

St Markley's assistant had been discovered to have been Rev Malachi Hitchins of St Hilary Cornwall born 1791 died 1859.

M. Lunden stated that he had had some correspondence with St Hensen relative to dark auroras and was requested to prepare the correspondence for insertion in the annual report

The paper for the evening had been announced on the variable star Alpa by Mr W B Mason.

As the attendance was small, due to the day being Thanksgiving it was decided to postpone the paper till the next meeting to be held Dec 9<sup>th</sup> or so about. The meeting after some interesting discussion adjourned

John A. G. Atwell Secretary



The regular meeting of the  
Astronomical & Physical  
Society of Toronto held  
Dec 9/97 in the Technical  
School Bldg

The President Mr John A Paterson  
M.A. occupied the chair

The minutes of the previous  
meeting were read and  
confirmed

Letters were read from  
Dr Copland Royal Observatory  
Edinburgh

The secretary of the Chamber of  
Commerce Edinburgh

Mr D Bruce of Port Elgin  
was nominated for associate  
membership and on  
suspension of the rules was  
duly elected.

The librarian report the receipt  
of exchanges and presents

Mr Elliot and Mr Pursey  
reported observations of the  
sun.

Mr Hawley called attention to  
the coincidence of marked depression  
in horizontal force with the  
annual observations as recorded by



D. M. Mason

After some discussion on  
matters of general scientific  
interest M. W. B. Mason was  
called upon for the paper  
of the evening.

This was an essay on the  
system of the variable star algal  
much information being given  
not easily accessible to the  
general reader.

After the reading of the paper  
a discussion arose in the  
course of which several members  
expressed the very great pleasure  
they had ~~at~~ had in hearing the  
paper which showed that a very  
great deal of labour had been expended  
by M. Mason in preparing the  
matter in such a popular form.

It was announced that the next  
meeting would be held Dec 20 when  
nominations would be received for  
Officers for 1898.

There would be some short paper  
read by M. Collins & M. Mason.

Dr Woodworth of Lincoln who  
was present handed in several  
drawings of the known lunar features  
made by Miss Sturtevant and Miss  
Homer of Lincoln at Lincoln.



Rowell & Hutchison,

Publishers, Book and Job Printers,

IMPORTERS OF BOOKS AND STATIONERY,

Bookbinders, Blank-Book Manufacturers, &c.

74 & 76 KING STREET EAST, and COURT STREET,

TORONTO, Dec 23<sup>rd</sup> 1897

The President  
Astronomical & Physical Society.

Dear Sir

Finding myself unable to do justice to the position of Recording Secretary I beg that the members of the Society will kindly relieve me from the duties of that important office. Through your kindness I desire to express my thanks to Mr. T. Lindsay for his readiness in taking my duty during unavoidable absence. Wishing the Society every success and assuring you that I will always take an active interest in its welfare.

Yours truly  
Chas. Sparling



These were much admired. The doctor  
reported that Simons was thriving  
as far as botany was concerned

The meeting then adjourned

John G. Peters  
Pres

W. H. H. H.



The regular meeting of the  
Astronomical & Physical  
Society of Toronto held  
Dec 20 1897 in the Technical  
School building.

The President Mr John A Paterson M.A.  
occupied the chair

Letters were read from  
Mr Wallace of Orissa asking for  
a copy of the Society's constitution;  
from Mr Kay of Paris Ont, giving  
particulars of rainfall in his  
locality.

Mr A.C.D. Crommelin of the  
Royal Observatory Greenwich  
and from Mr Anthony Story-Markelyne  
of London Eng

The nominations for officers were  
then called for

Hon Dr G.W. Ross was nominated  
for Honorary President and  
declared elected

~~Mr A.G. Savigny was~~

Mr John A Paterson M.A. was nominated  
for President by Mr A.G. Savigny.

Mr Paterson stated that he wished to  
give place to some other member of the  
Society in the office of President.

Mr Arthur Harvey was nominated by  
Mr Lindsay.



M<sup>r</sup> Harvey stated that the interests of the Society would be best served by M<sup>r</sup> Paterson's retaining the office; that he himself had no desire to take the presidency.

M<sup>r</sup> Paterson replied by paying calling the attention of all to the very high standing which M<sup>r</sup> Harvey now occupied as a cultured man of science and hoped that he would assume the office for which he was eminently fitted.

Dr E A Meredith was then nominated by M<sup>r</sup> Harvey, it being understood that the matter would be settled at or before the next meeting.

The nominations for the vice Presidency were M<sup>r</sup> Harvey, M<sup>r</sup> R T Shepart & Meredith, two to be elected

M<sup>r</sup> Geo E Humston was declared by the chairman elected to the office of Corresponding Secretary, there being a unanimous feeling that the interests of the Society had been and would always be admirably served by M<sup>r</sup> Humston in this office.

A note having been received from M<sup>r</sup> Chas T Spaulding to the effect that he would be unable to attend to the duties of recording Secretary, M<sup>r</sup> Lindsay was declared elected to the office of Recording Secretary & Editor.



The President then stated that Mr. Goddard had called upon him and had explained that it would be impossible for him to continue in the office of Treasurer.

Mr. Harvey moved that the corresponding Secretary be requested to convey to Mr. Goddard an expression of the high regard in which he was held by the Society; & convey the thanks of the Society for the time given to its service in the past; requesting that Mr. Goddard had found it necessary to resign. This was carried unanimously.

Mr. Chas. P. Spaulding was nominated for Treasurer by Mr. Lindsay

Mr. J. K. Collins was nominated by Mr. Lindsay

Mr. W. D. Merson was nominated for the office of Librarian and declared elected.

Mr. D. J. Howell was nominated for the office of Curator the name of the office to be changed to Director of Photography for the Society.

The following gentlemen were nominated as the other members of the Council  
 Mr. A. T. Miles; Mr. Goddard, Mr. Parsley  
 Mr. J. S. Radant, Mr. Short, S. Watson  
 Mr. Chant, Mr. Sandair, Mr. Dehury  
 Mr. J. K. Collins.

The nominations were then closed.



Observations were reported by  
Mr Pursey and Mr Harvey

Mr Harvey referred to the fact that  
during the past November there  
had been very few of the humid mists  
seen anywhere by any observers  
This seemed to show that the stream was  
not so much lengthened out as had been  
supposed.

Some notes were handed in by Mr Craig  
and by the chairman from Mr Goddard,  
referring to solar phenomena.

Mrs Savigny read a sketch of the  
Urania institution of Berlin, contributed  
by Dr W. W. Withers.

Mr Hether read some notes on Prof  
Cossigns theory of solar disturbances.

A paper prepared by Mr Collins on the  
defects in large telescopes was  
postponed till the ~~next~~ next meeting.

The second issue of lunar photographs  
from the Paris Observatory were  
received and shown to the members  
present. These were very much admired  
and the special thanks of the Society were  
due to the donors.

The meeting adjourned at 22 o'clock to  
meet Jan 6 1835.

Arthur Harvey  
V.P.

John Herschel  
Rec Sec.



Astronomical & Physical Society of Toronto

Council Meeting in

The President's office Sep 20/97 16 o'clock

Members present -

Mr Patterson, Mr Loddhunter, Mr Elvins  
Mr Pursey, Mr Harvie, Mr Meredith  
Rev Mr Short, Mr Lindsey, Mr Collins.

The President, Mr Patterson in the Chair.

Order of Business

- No 1 The design was discussed. The matter was left in the hands of a committee, ~~composed~~ consisting of Mr Meredith, Mr Lumsden and Mr Harvie. The latter to act as convenor.
- No 2 The corresponding secretary was instructed to acknowledge the receipt of a communication from the observatory at Mexico in reference to a proposed reformation of the calendar in the lines indicated by Mr Watson.
- No 3 The efforts of some of the officials at Ottawa, to bring about the removal of the meteorological observatory at Toronto, to that city - was brought to the attention of the Council and in view of the great scientific loss that would be sustained by this city and Province if such a step were taken, it was unanimously decided to vigorously oppose such a move. A committee composed of the President, Mr Patterson, Mr Lumsden, Mr Harvie, Mr Meredith and the Hon President the Minister of Education - was appointed to wait upon certain of the official authorities and endeavor to impress upon them, the desirability of having this institution - which has been such a powerful stimulus to important branches of scientific inquiry in this educational centre - remain within the immediate vicinity of Toronto. It was understood Mr Harvie would communicate with the Hon Mr Mulock Chancellor of the University of Toronto and member for North York, in regard to the subject - and advise the committee at an early date.
- No 4 A letter from L. R. Muldola, <sup>was read</sup> relative to the affiliation of the Toronto Society with the British Association for the advancement of science - advising application on the part of the society and also an exchange of transactions ~~was read~~, as this had already been done, the matter was left in the care of the corresponding secretary by Lumsden.
- No 5 The donor of a set of the Scientific American advised that the volumes had been delivered at the rooms of the Society.
- No 6 The corresponding secretary would report at the next general meeting regarding a similar donation of the English Mechanic and World of Science.
- No 7 The work of Messrs Knowell & Hutchinson being satisfactory, the contract for printing the transactions for the present year was again attended to them.
- No 8 Great regret was expressed when Mr Loddhunter announced that he was compelled to resign his office as treasurer of the society, on the advice of



Business

- Mr. Watson in the Chair.
- No 1 The design was discussed. The matter was left in the hands of a committee, ~~composed~~ consisting of, Mr Meredith, Mr Lumsden and Mr Harvie. The latter to act as convenor.
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- No 5 The donor of a set of the Scientific American advised that the volumes had been delivered at the rooms of the Society.
- No 6 The corresponding secretary would report at the next general meeting regarding a similar donation of the English Mechanic and World of Science.
- No 7 The work of Messrs Powell & Hutchinson during satisfactory. The contract for printing the transactions for the present year was agreed to their great regret was expressed when Mr Todhunter announced that he was compelled to resign his office as treasurer of the society, on the advice of his physician on account of an injury to his eyesight. Mr Todhunter finally consented to retain office nominally until the <sup>end</sup> of the official year. Mr H. D. Caswell was appointed <sup>acting</sup> Assistant Treasurer for the balance of the term, when it was hoped the treasurer would be again able to actively assume office.
- No 9 The question of having more papers of interest brought before the society, was again discussed and the assistant secretary announced that a number of such had been promised.

The council then adjourned subject to the call of the President.