

EMS Minutes: Volume 1: pages 174 to 184

1901-02: Twentieth session

Twentieth Session —
1901 - 1902.

8.11.1901. Minutes of meeting held on Friday, 8th November, 1901, in The Edinburgh Institution — Mr J. W. Butters in the Chair.

The following papers were read:—

1st "The Second Integral Theorem of Mean Value; a geometrical proof" — by Professor Gibson.

2nd Theorems on Parallels through Reciprocal Points, and on Anti-Parallels through the Symmedian and Orthocentre — by Mr. A. G. Burgess.

3rd On an Instrument for trisecting any angle — by Mr. James N. Miller, Joppa.

After some discussion as to the advisability of appointing an absent President, the following Office-Bearers were elected for the current session:—

President — George Duthie, M.A., B.A., F.R.S.E.,

Vice-President — John A. Third, M.A., D.Sc.,

Hon. Secretary — Donald G. M. Lusk, M.A.,

Hon. Treasurer — James Archibald, M.A.,

Editors of Proceedings: Wm. A. Lindsay, M.A., B.Sc. (Convener),

Chas. Tweedie, M.A., B.Sc., F.R.S.E.

Meeting: 8th November 1901

Committee - John Watt Butters, M.A., B.Sc., F.R.S.E.
Horatio S. Carslaw, M.A., D.Sc., F.R.S.E.
James Goodwillie, M.A., B.Sc., F.R.S.E.
W. L. Thomson, M.A.

Mr. Archibald, Honorary Treasurer submitted the Treasurer's Report for Session 1900-1901 from which it appeared that one Life-Membership Subscription had been received to the recently established "Capital Account", and that after withdrawing from this the annual subscription of seven shillings and sixpence and adding it to the "cash account", there was a balance in favour of the Society's Capital Account (^{partly} ~~mainly~~ owing to a donation of £1.5 from Mr. Duttie) of £4"18"6. It further appeared that 166 Annual Subscriptions had been received during the session, and that £6"11"8 had been received from the sale of Proceedings. There was a Balance on the Cash account in favour of the Society to the extent of £32"14"0½ — and this added to the 'Capital Account' Balance left the Society with a Total Balance on hand of £37"12"6½. This was regarded as a most satisfactory statement, and on the motion of the Chairman a very hearty vote of thanks was accorded to Mr. Archibald.

Mr. John H. McAlpine was elected an Ordinary Member, and for election at next meeting Mr. E. W. Herbert, Edinburgh Academy, was proposed by J. Mackay, and seconded by Professor Gibson; and Mr. James M. Edward, M.A., Head Master, Wigtown Public School was proposed by Mr. I. B. Clark, and seconded by Mr. Archibald.

Mr. Muirhead gave notice for next meeting of a motion empowering the Treasurer to receive Triennial subscriptions of a guinea, payable in advance, in place of the annual subscription of seven shillings and sixpence.

J. A. Thirid

Minutes of meeting held on Friday, 13th Dec. in the Edinburgh Institution - Dr. Thirid, Vice-President in the Chair.

The following papers were communicated read:-

1. "Notes on the Theory of the Rolling of one rigid surface on another," by Mr. Muirhead.
2. "A Proof of Rodrigues' Theorem and some expansions derived from it" by Dr. L. Crawford, (communicated by Mr. A. G. Burgess.)

Meeting: 13th December 1901

3. Demonstration of a pair of Theorems in Geometry, by Mr. H. F. Blichfeldt - communicated by Mr. McIntosh. In connection with this paper Dr. Mackay gave a short history of attempts at a direct solution.

Mr. Muirhead moved the motion of which he gave notice at the previous meeting. This was seconded, the previous question on being moved & seconded was carried.

Dr. Mackay read a letter from the son of the late Professor Tait intimating that Mr. Tait and family were willing to hand over to the Society a number of Volumes of Mathematical works, and ^{that they} further presented the Society with one of the late Professor's Bookcases. These presents were most gratefully accepted by the Society, and the Secretary was instructed to write Mr. Tait expressing the thanks of the Society.

Mr. Herbert, and Mr. Edward were elected Ordinary Members of the Society, and for election at next meeting. Mr. A. J. Martin, M.A., B.Sc., Spier's School, Beith, Ayrshire, was proposed by Dr. Thib & seconded by Mr. Archibald.
J. A. Thib

10. 1. 1902.

Minutes of meeting held on Friday, 10th January, in the Edinburgh Institution - Dr. Third, Vice-President in the Chair.

Dr. Carslaw contributed the following papers:-

1st The use of Fourier's Series in the Problems of Vibrating Strings.

2nd On a Theorem on Inequalities.

Mr. W. L. Thomson communicated a note by Dr. Crawford 'on a property of Circulating Decimals'.

Mr. A. J. Martin was elected an Ordinary member.

J. H. Third

14. 2. 1902.

Minutes of meeting held on Friday, 14th February in the Edinburgh Institution - Dr. Third, Vice-President in the Chair.

The business consisted of a discussion on the Teaching of Elementary mathematics. Dr. Carslaw initiated this discussion, and made special reference to the addresses on this subject by Professor Perry and others before the Glasgow meeting of the British Association. The discussion was taken part in by most of those present. Finally it was agreed on the motion of Mr. Tweedie, seconded by Mr.

Meeting: 14th January 1902

Batters to appoint a committee to draw up a set of resolutions indicating certain changes in connection with the teaching of elementary mathematics. The Committee appointed consisted of D^{rs} Carlaw, Mackay and Morgan, and Messrs Alton, Macdonald, Tweedie and McIntosh (Convener).

It was decided to meet hold the next meeting in Glasgow.

The President intimated that a formal notice had been received by the Committee suggesting the election of Professor Laidlaw of Glasgow University as an Honorary member of the Society and that their suggestion had received the approval of the Committee.

On the motion of Mr. Tweedie seconded by Mr. Batters, Mr. H. G. Gevans was proposed for election as an ordinary member of the Society.

J. G. Third

4.3.1902. Minutes of meeting held on Friday 14th February in the United Free Church Training College, Cowcaddan, Glasgow - J. G. Third, Vice-President in the Chair.

The business before the meeting was the consideration of "Resolutions on proposed improvements

Meeting: 14th March (!) 1902

in "the Teaching of Elementary Mathematics," as drawn up by the Special Committee appointed at last meeting. These resolutions after many amendments and much discussion were finally adopted in the following form — a form not greatly different from that in which the Committee submitted them.

1. "That the primary object in teaching Elementary Mathematics is to afford a mental training to the pupil. The commercial, technical or professional applications of the subject are of secondary importance in general education".
2. "That there should be no undue haste to begin the study of the Calculus with a view to its practical applications".
3. "That pupils should not be encouraged in the unscientific practice of placing dependence on rules or formulae which they do not understand".
4. "That, in teaching any branch of mathematics, concrete illustrations and verifications, including experimental, graphical and other methods, should, wherever practicable, accompany theory".
5. "That, in examination, particular methods of solution or demonstration should not as a rule be demanded, e.g., the use of algebra should not be prohibited in answering questions in

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5. "That, in examination, particular methods of solution or demonstration should not as a rule be demanded, e.g., the use of algebra should not be prohibited in answering questions in

arithmetic or geometry.

6. "That there should not be imposed upon schools in any branch of mathematics a syllabus which does more than indicate the order in which the main divisions of a subject are to be taught".

On the motion of Professor Gibson, it was remitted to the Special Committee to consider as to how these resolutions might be best given effect to.

Professor Jack was elected an Honorary member.

Mr. H. T. Gevans, Fellow and Tutor of Worcester College, Oxford, was elected an ordinary member.

The Chairman intimated that a formal notice had been received by the Committee of the Society suggesting the election of Professor Gibson, West of Scotland Technical College, Glasgow, as an Honorary member of the Society, and that this suggestion had received the approval of the Committee. Mr. Alison spoke in support of this.

There were thirty three members present.

J. G. Meind

9.5.1902. Minutes of meeting held on Friday, 9th May, in The Edinburgh Institution - Dr. Third, Vice-President in the Chair.

The following papers were read:-

- 1st Note on the Theorems of Menelaus and Ceva, by Dr. Mackay.
- 2nd Notes on Decimal Coinage and Approximation, by Mr. J. W. Butters.
- 3rd On some systems of Conics associated with the triangle, by Professor Allardice.
- 4th The applicability of the Law of Exhaustible Minors to determinants of special form, by Dr. Muir.

The two last papers were communicated by Mr. C. Tweedie. ^{Mr. John George Southland, Math. Works, The Academy, Greenock was elected an ordinary member.}

Professor Gibson, West of Scotland Technical College, Glasgow, was elected an Honorary Member; and for election as an ordinary member at next meeting, Mr. J. F. Cameron, M.A., Fellow & Tutor of Caius College, Cambridge, was proposed by Mr. Tweedie, and seconded by Mr. Butters.

J. A. Third

13.6.1902 Minutes of meeting held on Friday, 13th June, in the Edinburgh Institution - Dr. Third, Vice-President in the Chair.

Meeting: 10th May/13th June 1902

The following papers were read:-

- 1st Notes on the Theorems of Menelaus and Ceva - by Mr. R. F. Muirhead.
- 2nd Constructions connected with Euclid VI. 3 & A, and the circle of Apollonius - by Mr. R. F. Muirhead.
- 3rd Notes on Equations and Inversion - being Part I of a paper on Anallagmatic curves - by Mr. Charles Tweedie.
- 4th A construction for the Force, at any Point, due to Electric Point-Charges or Ideal Magnets, with an extension to continuous distributions - by Dr. W. Peddie.

Mr. John F. Cameron was elected an Ordinary Member.

A cordial vote of thanks was passed to Messrs. Turner and Macmillan for the courteous use of the Institution Rooms.

J. A. Hind

Financial Statement for Session 1900-1901.

INCOME.	CAPITAL ACCOUNT.	EXPENDITURE.	
Donation, - - - - -	£1 5 0	Contribution to Cash Account, - - - - -	£0 7 6
1 Life Membership Subscription, - - - - -	4 0 0	Balance, - - - - -	4 18 6
Interest, - - - - -	0 1 0		
	£5 6 0		£5 6 0
	CASH ACCOUNT.		
Balance from last Session, - - - - -	£9 16 2	Printer's Account, - - - - -	£37 17 0
166 Annual Subscriptions, - - - - -	62 5 0	Lithographer's Account, - - - - -	2 4 6
3 Part Subscriptions, - - - - -	0 15 0	Binder's Account, - - - - -	3 0 0
Sale of <i>Proceedings</i> , - - - - -	6 11 8	Secretary's Expenses, - - - - -	0 17 3
Contribution from Capital, - - - - -	0 7 6	Treasurer's Expenses, - - - - -	0 18 0½
Interest, - - - - -	0 14 11	Editor's Expenses, - - - - -	0 5 9
		Janitor's Fees, - - - - -	1 0 0
		Other Expenses, - - - - -	1 13 8
	£80 10 3	Balance on hand, - - - - -	£32 14 0½
			£80 10 3
		Balance from Capital, - - - - -	£4 18 6
		Balance from Cash, - - - - -	32 14 0½
		Total Balance on hand, - - - - -	£37 12 6½

W. L. THOMSON, } *Auditors.*
 J. A. THIRD, }

JAS. ARCHIBALD,
Hon. Treasurer,
 52 POLWARTH GARDENS, EDINBURGH.

Edinburgh Mathematical Society.

TWENTIETH SESSION, 1901-1902.

THE FIFTH ORDINARY MEETING for this Session will be held on Friday, 14th March, at 7.30 p.m., in the U.F.C. Training College, 121 Cowcaddens, Glasgow.

BUSINESS.

Discussion on proposed improvements in the Teaching of Elementary Mathematics.

The following Resolutions, drawn up by the Committee appointed at last meeting, will be submitted:—

1. "That the primary object in teaching Elementary Mathematics is to afford a mental training to the pupil. The commercial, technical, or professional applications of the subject are of secondary importance in general education."
2. "That there should be no undue haste to begin the study of the Calculus with a view to its practical applications."
3. "That pupils should not be encouraged in the unscientific practice of placing dependence on formulae which they do not understand."
4. "That, in teaching any branch of Mathematics, experimental illustrations and verifications should, wherever practicable, accompany theory."
5. "That in examinations particular methods of solution or demonstration should not as a rule be demanded, *e.g.*, the use of algebra should not be prohibited in answering questions in arithmetic or geometry."
6. "That there should not be imposed upon schools a syllabus which does more than indicate the order in which the main divisions of a subject are to be taught."

Please Note Time and Place of Meeting.

Hon. Treas., Mr JAS. ARCHIBALD, M.A.,
52 Polwarth Gardens.

D. C. McINTOSH, *Hon. Sec.*,
37 WARRENDER PARK TERRACE.

Edinburgh Mathematical Society.

Resolutions on proposed improvements in the Teaching of Elementary Mathematics.

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