Session 1904 – 5.

Twenty - Third Session

11:XI:04 Minutes of meeting held on Friday, 11ᵃ. Nov. 1904 in the Edinburgh Institution — Mr Charles Tweedie, President, in the chair

The following papers were read :—

1. Recherches sur l'enveloppe des pédales des divers points d'une circonférence par rapport à un triangle inscrit by M. Edouard Collignon — communicated by Dr J. S. Mackay.

2. The Condensation of Continuants by Dr Thomas Muir — communicated by Mr Chas. Tweedie

A vote of thanks, proposed by Mr Alison, seconded by Prof. Gibson, was passed to Dr Mackay for his great services to the Society in preparing an Index Volume of its Proceedings. Donations amounting to £25·5/– were intimated, towards defraying the expenses of the Volume ; including a sum of £10 from Mr Alison, which was specially acknowledged

Office - Bearers were elected as follows

    President   W. L. Thomson, M.A, B.A,

    Vice-President   D. C. McIntosh, M.A, F.R.S.E.

Meeting: 11th November 1904

Hon. Secretary	P. Pinkerton, M.A.
Hon. Treasurer	James Archibald, M.A.
Editors of "Proceedings"	{ W.A. Lindsay, M.A, B.Sc.
	{ John Turner, M.A, B.Sc.
Committee	Charles Tweedie, M.A, B.Sc, F.R.S.
	A.G. Burgess, M.A, F.R.S.E.
	D.K. Picken, M.A.
	Arch. Milne, M.A, B.Sc.

Mr. Archibald, Hon. Treasurer, submitted the Treasurer's Report for Session 1903-1904, which showed 138 Annual Subscriptions, a Balance on the Capital Account of £21"4"3, and a Balance on the Cash Account of £14"0"6½ ; making a Total Balance of £35"4"9½

On the motion of the Chairman, Mr. D.C. McIntosh received the thanks of the Society for filling the office of Secretary with conspicuous ability during the last five years.

The following were candidates for membership

Mr George D. Valentine, M.A } proposed by Mr J.W. Peck
Advocate, Edinburgh   } Seconded by Mr D.K. Picken

Mr Wm Jeffrey, M.A.   } proposed by Mr A.D. Russell
Banff Academy, Banff   } seconded by Mr P. Pinkerton

It was remitted to the Committee to take steps to gather together in some convenient place, the volumes forming the Library of the Society.

W.L. Thomson Chairman

9:XII:04 Minutes of Meeting held on Friday, 9th Dec, 1904 in the Edinburgh Institution; Mr W. L. Thomson, President, in the chair

The following papers were read :—

1. Cubic and Quartic Functions and Equations by P. Pinkerton

2. A proof of the Addition Theorem in Trigonometry by D. K. Picken.

3. Two Geometrical notes by E. Collignon (communicated by the Secretary)

Messrs G. D. Valentine and Wm Jeffrey were elected ordinary members of the Society

The following were candidates for Membership

W. R. Hughes, B.A, Fellow of Jesus College, Cambridge.

George Green, M.A; 3 Edgefauld Terrace, Springburn, Glasgow

James A. McBride, B.A, B.Sc, Allanshaw's School, Glasgow.

W. McF. Orr, M.A, Professor of Mathematics, Royal College of Science, Dublin.

David G. Taylor, M.A, B.A, University College, Cardiff

all proposed by D. K. Picken & seconded by P. Pinkerton.

W. L. Thomson

Meeting: 9th December 1904

13:1:05 Minutes of meeting held on Friday, 13th Jan, 1905 in the Edinburgh Institution; Mr W. L. Thomson, President, in the chair

The following papers were read

1. A proof of the theorem that the arithmetic mean of n positive quantities is not less than their harmonic mean by W. A. Lindsay

2. On the factors of $2^p - 1$, by G. D. Valentine

3. On the contact of a member of a family of curves with the envelope, by E. B. Ross.

The five candidates proposed & seconded at the preceding meeting were elected ordinary members.

10:2:05 Minutes of Meeting held on Friday, 10th Feb, 1905 in the Edinburgh Institution, 8 Queen Street; Mr W. L. Thomson, President, in the chair

The following papers were read

1. A method of dividing the circumference of a circle into 360 equal parts by J. N. Miller

2. The Ambiguous cases in the Solution of Spherical Triangles by Professor Bromwich, communicated by Professor Gibson

Meeting: 13th January/10th February 1905

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3. Polar Soci by D. G. Taylor, communicated by J. Turner.
The following were candidates for membership
J. A. Doig, George Watson's College, Edinburgh
R. J. Nicholson, M.A., B. Sc.,   "   "
W. L. Thompson, M.A., B. Sc. Allan Glen's School, Glasgow
   Peter Ramsay, M. A., B. Sc.   "   "   ,
Archibald Laing, M. A.,   Provanside School,   "
Peter McLeod, M.A., B. Sc., Hillhead High School,   "
A. J. Ross, M. A., B. Sc., Gillespies' School, Edinburgh
Peter Cowrie, M. A., B. Sc., Boroughmuir School,   "
Peter D. Innes, M. A., B. Sc., 16 Argyle Place,   "
Edward Blades, M.A., B. Sc., Moray House T. C.,   "
H. F. Thompson, B. A. (Dublin), Academy,   "
A. C. Dixon, M. A., F. R. S., Prof. of Maths, Queen's College, Belfast
M. C. Mutch, M. A., B. Sc., Royal Academical Institution,   "
John Jeffrey, M. A., B. Sc., Rector, High School, Selkirk
John G. Dunbar, M. A., The Academy, Ardrossan.
proposed by the Secretary & seconded by D. K. Picken.
                    W. L. Thomson

10 : 3 : 05 Minutes of Meeting held on Friday, 10th March, 1905, in the U.F.C. Training College, Glasgow; Mr W. L. Thomson, President, in the chair.

The following papers were read —

1. On the Orthoptic Locus of the Semi-Cubical Parabola, by A. G. Burgess.

2. On the radii of circles touching three given circles, by A. Holm.

3 Proofs of Newton's Theorem on sums of powers of the roots of an equation;

A Proof of Waring's Expression for $\Sigma \alpha^r$ in terms of coefficients, by Dr Muirhead.

Dr J. Erskine-Murray exhibited his Differentiating Machine.

The fifteen candidates for membership, proposed and seconded at the previous meeting, were elected ordinary members.

The following were candidates for membership.

Loudon Arneil, M.A., U.F. Training College, Glasgow

William H. Love, M.A., U.F. Training College, Glasgow

proposed by W. A. Lindsay & seconded by Dr Muirhead

James Erskine-Murray, D.Sc., Kelvinside Academy, Glasgow

Alexander Stevenson, M.A, B.Sc, Whitehill School, Glasgow

Meeting: 10th March 1905

Alexander Leighton, M.A., B.Sc., Morgan Academy, Dundee
Peter Ross, M.A., B.Sc., Broughton Higher Grade School, Edinburgh
  proposed by P. Pinkerton and seconded by D. K. Picken
Wm Hislop, M.A., Rothesay Academy, proposed by A.G. Burgess
  & seconded by P. Pinkerton
                          W. L. Thomson

12:5:05 Minutes of Meeting held on Friday, 12th May, 1905,
in the Edinburgh Institution, 8 Queen St.,
Mr W. L. Thomson, President, in the chair.
The following papers were read :—
1. Bibliography of the Three-cusped Hypocycloid
   by Dr J. S. Mackay.
2. Notes on Inequalities by V. Ramaswami Aiyar,
   communicated by A. Milne
3. On Mathematical Instruments, and the
   accuracy to be obtained with them in some
   elementary practical problems by J. H. A.
   McIntyre.
The seven candidates, proposed and
seconded at last meeting, were elected
ordinary members of the Society.

Meeting: 12th May 1905

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The following were candidates for membership –
C. E. McVicker) proposed by C. Tweedie
5 Comely Bank) seconded by J. Alison
Alex. T. Merrilees, M.A., 12 Marchmont Street,
proposed by A. Milne, seconded by D. Morgan.
Alex. Routledge, B.A., (R.U.I) 32, Clonmore Road,
N. Strand, Dublin, proposed by W. L. Thomson,
Pres, & seconded by J. B. Clark.
David Murray, M.A., B.Sc., Kilmarnock Academy,
and James Littlejohn, M.A., 11, Kinnaird St., Arbroath
proposed by P. Pinkerton & seconded by W. Anderson.

John W. Butters.

9:6:05 Minutes of Meeting held on Friday, 9th June, 1905,
in the Edinburgh Institution, 8 Queen St., Mr J. W.
Butters, Ex-President, in the chair.
The following papers were read:
1. A direct method of obtaining the Foci & Directrices
from the general eqⁿ $(a, b, c, f, g, h \rrbracket x, y, 1)^2 = 0$,
by D. K. Picken.
2. Note on the determination of the axes of a conic,
by R. F. Davis, communicated by J. A. McBride
3. The ratio of Incommensurables in Elementary
Geometry by Prof. A. Brown, communicated by the Secretary

Meeting: 9th June 1905

The five candidates, proposed and seconded
at the previous meeting, were elected ordinary
members of the Society.

Mr. D. S. McNair, B.Sc., Ph.D., H.M.I.S., Edinburgh
was a candidate for ordinary membership, proposed
by the Secretary & seconded by Mr John Alison.

W. L. Thomson