



Inventory

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Papers and Manuscripts of Edward Sang

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Correspondence

1. Correspondence, 1875, relating to an attempt by the RSE to obtain funds to publish Sang's logarithms in full and a letter, 1879, awarding Sang a pension.
2. Correspondence, 1905-7, between the daughters of Edward Sang and the Council; minutes and reports of the RSE concerning the disposal of Sang's manuscripts and the plates for 'New Tables of Logarithms'.
3. Letter, 1907, from C G Knott to Mr Anderson, relating to the transfer of duplicate volumes of Sang's tables to Edinburgh University Library.
4. Letter, 1915, from C and E Langton, publishers and printers, London, relating to the publication of certain volumes of Sang's letters.
5. Correspondence, 1923-5, 1939, relating to comparisons of Sang's logarithms with others and also inaccuracies in Sang's tables.
6. Correspondence, 1926, relating to proposed publication of tables.
7. Correspondence, 1935-42, relating to the various editions published.

Papers

8. 'Account of the New Table of Logarithms to 200,000' by Edward Sang FRSE. Reprinted from the Trans. R Soc. Edinburgh vol.26 (1872), pp.521-8.
9. 'On Mr Sang's Eclipse of Dec 31 Paper'. Report, 1881, by Piazzzi Smyth.
10. 'List of Trigonometrical and Astronomical Calculations in Manuscript' by Edward Sang, 1890. Printed. 7 copies.
11. 'List of MS 'Tables etc' by Dr Edward Sang given to the Royal Society of Edinburgh by his daughters'. ca.1906. Photocopy, original in Edinburgh University Library.

'List of Volumes which have been copied by transfer'. Photocopy, original in Edinburgh University Library.
12. Dr Edward Sang's Logarithmic, Trigonometrical, and Astronomical Tables. Reprint from Proceedings Royal Society Edinburgh 28 pt ii (1908). 2 copies.
13. C G Knott 'Edward Sang and his Logarithmic Calculations'. Reprinted from the Napier Tercentenary Memorial Volume, Royal Society of Edinburgh (1915), pp.261-8.

14. Review of Sang's A New Table of Seven-Place Logarithms of all numbers from 20,000 to 200,000 by P A M. Nature Aug 17, 1916, p.499.
15. 'Inscriptions on fly-leaves of Dr Sang's manuscript volumes of Logarithms', n.d.

Mathematical Tables

- 16-18. 'Construction of a Table of Logarithms to Twenty-eight Places of all numbers up to 10000'.
 16. Volume I. Construction. 1865.
 17. Volume II. Construction. 1874.
 18. Volume III. Revision and Indices. 1875.
19. 'List of the first Ten Thousand Prime Numbers with their Logarithms and reference to the page of the original Computation'.
20. 'Logarithms to twenty-eight places of Numbers to Ten Thousand'. 1871.
21. 'Logarithms to twenty-eight places of Numbers from Ten Thousand to Twenty Thousand'. 1890.
- 22-48. 'Fifteen-Place Logarithms of all Numbers with their first and second differences', 1869-73.
 22. 100000-110000
 23. 110000-120000
 24. 120000-130000
 25. 130000-140000
 26. 140000-150000
 27. 150000-160000
 28. 160000-170000
 29. 170000-180000
 30. 180000-190000
 31. 190000-200000
 32. 200000-210000
 33. 210000-220000
 34. 220000-230000
 35. 230000-240000
 36. 240000-250000
 37. 250000-260000
 38. 260000-270000
 39. 270000-280000
 40. 280000-290000
 41. 290000-300000
 42. 300000-310000

43. 310000-320000
 44. 320000-330000
 45. 330000-340000
 46. 340000-350000
 47. 350000-360000
 48. 360000-370000
49. 'Auxiliary Table for the Interpolation of Fifteen-Place Logarithms', 1884.
50. 'On the Construction of the Canon of Sines, for the decimal division of the Quadrant', 1877.
- 51-2. 'Canon of Sines to fifteen places, for each minute of the centesimal division of the quadrant', 1880-1.
51. Part I. 0° to 50° (with photograph of Sang).
 52. Part II. 50° to 100° .
53. 'Logarithmic Sines and Tangents to Fifteen Places, for each Ten-thousandth part of the Quadrant', 1885-8.
54. 'Table of the Sines of Arcs measured in Degrees according to the Centesimal Division of the Quadrant', 1879.
55. 'Table of the Circular Segments for each minute of the Whole Circumference measured in Degrees of Surface, and computed to the eighth decimal place', 1879.
56. 'Table of Mean Anomalies to eight decimal Places of the Degree', 1880.
57. 'Table of Mean Anomalies to Seconds, for each degree of Position and each degree of Ellipticity with Differences and Variations', 1880.
58. 'Tables for the Mutual Conversion of Solar and Sidereal Time', 1846.
59. 'On the Third Co-ordinate Branch of the Higher Calculus', Reprint from Transactions of the Royal Society of Edinburgh 24 (1866), pp.515-521. 'On Functions with Recurring Derivatives', Reprint from Transactions of the Royal Society of Edinburgh 24 (1866), pp.523-556.
 'Numerical Values of Recurring Functions', 1860-83.
60. 'Essay on the Theory of commensurables', 1865.
61. 'Tables for the Comparison of the Modern and Ancient Divisions of Arc and of Time', 1880.

62. 'Logarithmic Sines of Arcs measured in parts of the Radius, with Logarithms of the Ratio of the Arc to its Sine'. Seven places, 1880-.
63. 'Tables of Solar and Lunar Half-Days for Latitude 56°', 1882.
64. 'Rational Right-Angles Trigons with The Lesser Angle in Ancient and Modern degrees', n.d.
65. Wet press handwritten copy by Sang of John Napier's Mirifici Logarithmorum Canonis Descriptio Edin 1819, with some recomputed tables at the end.
66. 'Index to Primes'.
67. 'On the Intermediate Equation $a^3 + b^3 = c^3$ '.
68. 'Lengths of Circular Arcs for the Decimal Division of the Quadrant', 1875.
69. 'Sines $\frac{\text{arc}}{\text{radius}}$ '
70. 'Log $\frac{\text{arc}}{\text{sine}}$, 1880'.
71. 'Log $\frac{\text{arc}}{\text{sine}}$ '
72. 'Anomalies'.
73. Lunar Half Days.
74. Multiples of 2 ver 0025 and 2 ver 0005.
75. 'Recurring Functions', 1860.
76. 'Solutions of the intermediate equation $A^2 + B^2 + C^2 = D^2$ for all values of D up to one hundred'.
77. 'On the Third Co-ordinate Branch of the Higher Calculus'. Read before the Royal Society of Edinburgh, 15th January 1866.
78. 'On the formulae for computing Logarithmic Sines', 1885.
79. 'Computation of Sines', 28 places.
80. 'Transfer sine a, cos a, circular functions'.

81. 'Tables Transfers'.
82. 'Logarithms'.
83. 'Formulae for the Computation of Primes...'
84. Volume labelled 'Sang MSS' containing a few pages of calculations.

Miscellaneous papers presented by the Misses Sang, 1914

85. List of material presented, 1914.
86. Mathematical and dynamical exercises, 1821-2, with comments and testimonials of Professors John Leslie and William Wallace.
87. Solution of Algebraic Equations of all Orders, Edin 1829.
88. 'Notice of a Dioptric Light erected at Kirkcaldy Harbour, with Description of the Apparatus for cutting the Annular Lens to the true optical figure' 1838.

Letter, 1885, from John Milne to Sang proving that the lantern of the Skerry Voe lighthouse erected by Alan Stevenson was copied from the Kirkcaldy Harbour light designed by Sang.
89. 'Notice of an erroneous Method of using the Theodolite, with a strict Analysis of the effects of various arrangements of Readers', 1838.

'On a Method of obtaining the greatest possible degree of Exactitude from the Data of a Survey', 1839.