

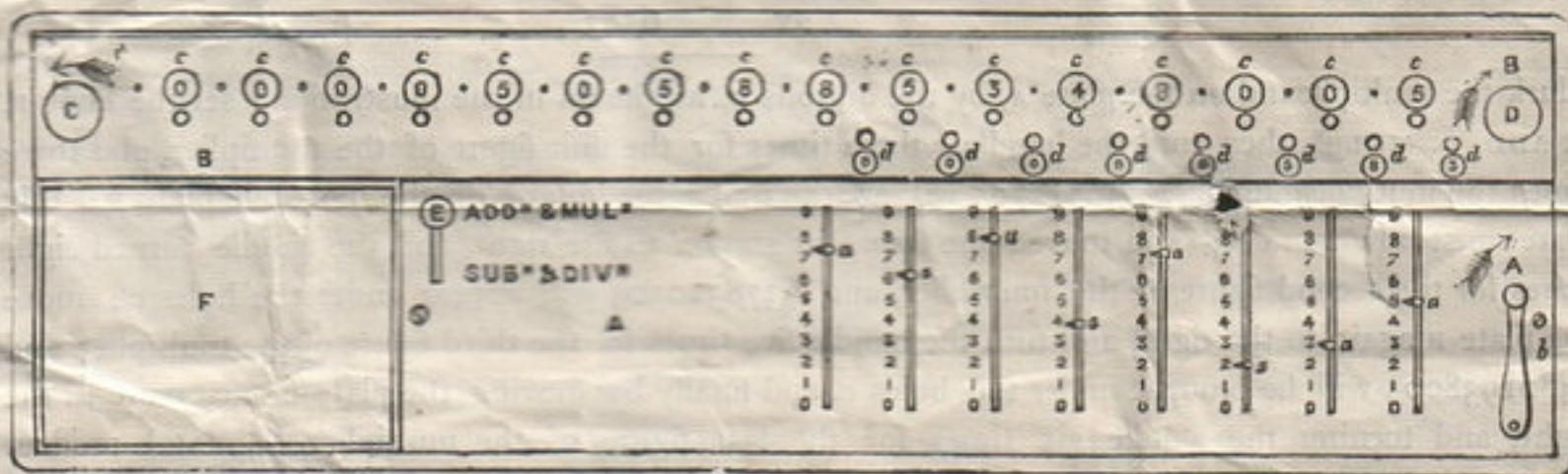
Prize Medals awarded at the Great Exhibition of 1851, and International Exhibition  
of 1862, &c., &c.

# THE ARITHMOMETER,

A CALCULATING MACHINE,

INVENTED BY

*M. THOMAS (de Colmar), Paris.*



The Arithmometer, which is now coming into general use has latterly been greatly simplified and improved. With this Machine, a number with eight places of figures can be multiplied by eight figures in eighteen seconds; sixteen figures can be divided by eight figures in twenty seconds; and a square root of sixteen figures can be extracted, with the proof, in less than two minutes, the results being obtained with mechanical accuracy. The instrument is of small size the one above illustrated, being only 22 inches long, 7 inches wide, and 4 inches deep.

The value of the Arithmometer is acknowledged in official reports of various scientific bodies, and has been testified by the highest honorary rewards and testimonials to M. Thomas (de Colmar), the Inventor.



M. Thomas obtained a Silver Medal at the Universal Exhibition of Industry in France, in 1849; a Gold Medal of the Société d'Encouragement; the Prize Medal at the Great Exhibition of 1851; the Diploma of Honour, at the Exhibition at Metz, in 1861; the Medal awarded at the International Exhibition of London, 1862, the Medal of Honour at Stettin, in 1865, and the Gold Medal at the Moscow Exhibition of 1872.

The Arithmometer is of great service to Accountants, Actuaries of Insurance Offices, Architects, Astronomers, Bankers, Engineers, Geometricians, and Merchants, and to all persons having calculations to make, as the work is performed with mechanical accuracy, and without mental exertion.

This instrument is used by a great number of large public and private establishments in England, by Engineers, and others, as testified by the annexed list, and in France by most of the Railway Companies, by the Mint, by the Creusot Iron Works, and by other large Establishments.

The use of the Arithmometer in Actuarial and other Calculations has been shewn in the Papers, read by Major General Hannyngton and Mr. Peter Gray, F.R.A.S., F.R.M.S., respectively at the Institute of Actuaries (see the Journal of the Institute of Actuaries, p. 244, Vol. XVI., and p. 249, Vol. XVII.); and Mr. Thomas T. P. Bruce Warren in a Paper, read before the Society of Telegraph Engineers, has shewn the application of the instrument to Electrical Computations.

The wood-cut represents a top view of an Arithmometer, the lid of the box being removed, and the following is merely given as an example of the working of the instrument for multiplication, thus:

To MULTIPLY 76847235  
BY 6583

Mark the multiplicand on the plate A, by the buttons *a*, as shown in the illustration; set the knob B, at ADD<sub>x</sub> & MULP<sub>x</sub>, then turn the handle *b* three times for the unit figure of the multiplier, and three times the multiplicand, viz.: 230541705 will appear under the holes *c*, in the moveable plate B; this plate must now be raised and moved one figure or station to the right, and the handle turned eight times for the second figure of the multiplier, and 6378320505 will appear under the holes *c*; move the plate B again to the right, and turn the handle five times for the third figure of the multiplier, and 44801938005 will be brought under the holes *c*, and finally by moving the plate B once more to the right, and turning the handle six times for the last figure of the multiplier, the total product 505885348005 will appear under the holes *c*, and the figures of the multiplier, viz.: 6583 will appear in the holes *d*.

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*List of some of the Public Offices, &c., where the Arithmometer is used.*

The Board of Trade.

„ Census Office.

„ Education Department.

„ General Register Office.

„ India Office.

„ South Kensington Museum.

„ War Office.

„ Railway Department, India.

The Cambridge Observatory.

„ Ld. Lindsay's Observatory, Dun Echt, Aberdeen.

„ Wrottesley Observatory.

„ College of Science, Dublin.

„ Queen's College, Belfast.

„ Trinity College, Dublin.

„ Amherst College, United States.

„ Representative Body, Church of Ireland.



## Insurance Offices.

The Briton Life Association.  
 „ British Equitable Assurance Company.  
 „ British Imperial „  
 „ Church of England „  
 „ Eagle „  
 „ Economic „  
 „ English and Scottish „  
 „ Gresham „  
 „ London and Provincial Law „

The Prudential Assurance Company.  
 „ National „ Dublin  
 „ Patriotic „ Dublin  
 „ Standard „ Edinburgh  
 „ New York Life „ New York.  
 „ Germania Life „ „  
 „ Life Association of America, St. Louis, United States.  
 „ National Mutual Insurance Co., Melbourne.

## List of some of the Purchasers of the Instrument.

Rev. W. ATWOOD, Ashelworth.  
 Mr. ARMYTAGE, Brighouse, York.  
 Dr. BALL, Dublin.  
 Mr. BRUNEL, C.E., Westminster.  
 Professor BASHFORTH, Woolwich Arsenal.  
 Mr. BRISSENDEN, London.  
 Mr. E. CROSSLEY, Halifax.  
 Mr. DONKIN, Engineer, London.  
 Messrs. EASTON, AMOS, & SONS, Engineers, Southwark.  
 Mr. EVANS, C.E., Greenock and Wemyss Railway, Glasgow.  
 Mr. FROUDE, C.E., Torquay.  
 Professor J. A. GALBRAITH, Dublin.  
 Mr. GORDON, Winchester Buildings, E.C.  
 Mr. PETER GRAY, F.R.S., London.  
 Mr. J. HAWKSHAW, C.E., Great George Street, Westminster.  
 Major General HANNYNGTON, India Office.  
 HENLEY'S Telegraph Works, Woolwich.  
 HOOPER'S Telegraph Works, Millwall & Mitcham.  
 Messrs. KATTENGELL & CAMPBELL, London.  
 Messrs. C. & E. LAYTON, Fleet Street, London.

Mr. McCLEAN, C.E., Gt. George Street, Westminster  
 Mr. MILLER, Glasgow.  
 Mr. MOLEWORTH, C.E., Calcutta.  
 Messrs. NETTLEFOLD & CHAMBERLAIN, Birmingham.  
 Captain NOBLE, Postal Telegraph Offices.  
 Messrs. PATRICK & SONS, Bullion Brokers, London  
 Messrs. PIGGOTT & SONS, Birmingham.  
 Dr. ROYSTON PIGOTT, London.  
 Messrs. PIXLEY, ABEL & LANGLEY, Bullion Brokers, London.  
 Dr. RUNCORN, St. Mary's Hospital, Manchester.  
 Mr. RYDER, London.  
 Mr. SEYD, Banker, London.  
 Messrs. SIEMENS BROTHERS, Great George Street, Westminster.  
 Mr. SPENCER, Manchester.  
 Colonel SMITH, London.  
 Major-General STRACHEY, India Office.  
 Mr. THOM, Qu.  
 Messrs. TRUBNER & Co., Patern. Row, London  
 Mr. WIGNER, Analytical Chemist, London.  
 Mr. WOOD, Keswick.

## PRICES IN LONDON AND PARIS.

				Without Quotient.	With Quotient	With Quotient Effacer
Instrument giving the product of 10 figures				£6		
„	12	„	—	...	£12	£16
„	16	„	12	...	16	20
„	20	„	—	...	—	32

A remittance or London reference must accompany Country and Foreign orders.

The instrument can be seen daily between 10 and 4 at the Offices of Mr. W. A. GILBER, the Sole Agent for England, America, and the Colonies, 4, South Street, Finsbury, London.

Prospectuses and other information forwarded upon application.