

Antique sale 925 to be held on 25th Mar 2026

INDEX AND ORDER OF SALE	START LOT
25th of March Sir Barnes Wallis Early Life to Airships (1900-1930) <i>Sale starts at 10am</i>	1
25th of March Sir Barnes Wallis Vickers to Dam busters (1930-1945)	100
25th of March Sir Barnes Wallis Post War and Supersonic (1946-1979)	200
25th of March Sir Barnes Wallis Furniture and Office Effects	300

PUBLIC VIEWING

Saturday	14th March	9am - 12noon
Monday	16th March	9am - 5pm
Tuesday	17th March	9am - 5pm
Wednesday	18th March	9am - 5pm
Thursday	19th March	9am - 5pm
Friday	20th March	9am - 4.30pm
Saturday	21st March	9am - 12 noon
Monday	23rd March	9am - 5pm
Tuesday	24th March	9am - 7pm

IMPORTANT NOTICES

COMMISSION Buyers Premium of 20% plus vat (24% inclusive) is payable on the hammer price of every lot.

PAYMENT Payment is welcome by debit card. Payment by cheque is not accepted.

CLEARING Clearing of items is allowed during the auction except furniture and rugs

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Sir Barnes Wallis Early Life to Airships (1900-1930)

1900–1930: After leaving Christ's Hospital School in Horsham, Sir Barnes Wallis began his career as an engineer in shipbuilding and structural design before moving into aviation. After joining Vickers, he worked on large airship projects and developed innovative engineering ideas. His most notable work of this period was helping design the rigid airship R100, which successfully completed its first flight in 1929 and demonstrated the potential of long-distance air travel.

- 1 **Alfred Egerton Cooper R.B.A. (British, 1883-1974) Half Length Portrait of Barnes Wallis in Army Uniform smoking a Pipe, oil on canvas, signed with initials, 32cm h x 23cm w. Provenance: Sir Barnes Wallis thence by descent. Note: this work was most likely painted in 1915, while Cooper and Wallis were serving in the Artist Rifles. ** Artist's Re-sale Rights may be payable on this lot (photo centre pages) £300-500

Museum reference X001-2028

- 2 A collection of Sir Barnes Wallis' school books (6vols.) to include LACHLAN, R and FLETCHER, W. C. Elements of Trigonometry, London: Edward Arnold, 1904, 12mo, 164pp. Original brown cloth with black lettered spine. Rubbing to corners and edges of spine. Second impression. The first blank page with pencil written equations. Signed B.N. Wallis. COCKSHOTT, Arthur and WALTERS, F. B. Rev. A Treatise on Geometrical Conics. London: Macmillan and Co. Limited 1902. 12mo, 208pp. Original burgundy cloth bound with gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Second Edition 1902. Signed B.N. Wallis and also signed J.C. Murray The University Birmingham 1903. HALL, H.S. and KNIGHT, S. R. Higher Algebra A Sequel to Elementary Algebra for Schools. London: Macmillan and Co., Limited 1903. 12mo, 557pp. Original burgundy cloth bound with gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Fourth Edition. BUDDEN E. Elementary Pure Geometry With Mensuration. A Complete Course of Geometry for Schools. London: W. & R. Chambers, Limited 1904. 12mo, 284pp. Original burgundy cloth bound with gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine, severe staining to pastedown and endpaper and back pages, some foxing. Signed B.N. Wallis. HALL, H. S. and KNIGHT, S. R. Elementary Algebra for Schools. London: Macmillan and Co., Limited 1902. 12mo, 392 pp. Original maroon cloth, faded gilt lettered spine, fading to spine and cover, rubbing to corners and edges of spine. Seventh Edition. Signed B.N. Wallis. SALMON, George, A Treatise on the Analytic Geometry of Three Dimensions. Dublin: Hodges, Figgis, & Co., 1882. 8vo, 612pp. Original green cloth, gilt lettered spine, rubbing to corners and edges of spine. Fourth edition. £200-300

Museum references in order of books - 1992/0392/G/F/1 X003-0609, 1992/0392/G/1i/4 X003-0720, 1992/0386/G/R/T X003-0528, 1992/0392/G/R/1 X003-0596, 1992/0392/G/L/1 X003-0615, 1992/0392/G/T/4 X003-0703

- 3 KELVIN Lord and TAIT Peter Guthrie. Elements of Natural Philosophy. Cambridge: At The University Press 1894. 8vo, 295pp. Original green cloth with gilt lettered spine. Rubbing to corners and edges of spine, tear to spine on both sides at the top, foxing and stains to pastedown and endpaper. Pencil written notes to back of contents page. Signed B. N. Wallis. From E.E.W. Sept 26. '09. £80-120

Museum reference 1992/0386/G/5/M X003-0545

- 4 MINCHIN, G. M. and DALE J. B. Mathematical Drawing, London: Edward Arnold 1906. 8vo, 145pp. Original burgundy cloth bound with gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Staining and foxing to pastedown, endpaper and other pages. Signed B.N. Wallis and also signed Alfred Jennings Kings College W.C. £80-120

Museum reference 1992/0386/G/Bi/M X003-0553

- 5 LOCK, Rev. J. B. A Treatise on Higher Trigonometry. London: Macmillan and Co. and New York 1889. 12mo, 199pp. Original maroon cloth with gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Torn stuck library plate to paste down. Third Edition revised. Signed B. N. Wallis £80-120

Museum reference 1992/0392/G/G/1 X003-0612

- 6 WATSON, W. A Text-Book of Physics. London: Longmans, Green, and Co. 8vo, 896pp. Original blue cloth, gilt lettered spine. Fading to spine and cover, rubbing to corners and edges, spine in poor condition, loose front page. dedicated "B.N.Wallis 8/6/21 from J M Bond 1900 With all good wishes" £40-60

Museum reference 1992/0386/Q/L/B X003-0573

- 7 3 vols. The University Tutorial Series. Clive's Mathematical Tables. London: W. B. Clive, University Tutorial Press Ltd. 8vo, 49pp. Original green cloth with black lettered spine. Fading and damage to spine, rubbing to edges and spine, staining to pastedown, endpaper and backboard. Signed B.N. Wallis and initialled to the title page B.N.W. Cowes 1910. EVERETT, J. D. Deschane's Natural Philosophy Part 4 Sound and Light. London: Black & Son, Limited. 8vo, 318pp. Original red cloth with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. Sixteenth edition. Initialled B.N.W Cowes 1911. WHITEHEAD, A.N. An Introduction to Mathematics. London Williams & Norgate 1911, 12mo, 256pp. Original blue cloth with gilt lettered spine. Spine in very poor condition, with later added "homemade" dust cover, possibly from a paper bag, handwritten to the front by Sir Barnes Wallis - An Introduction to Mathematics, A.N. Whitehead and signed B.N. Wallis £80-120

Museum references 1992/0386/G/M/M X003-0539 X003-0539, 1992/0386/G/2/M X003 0551 and 1992/0392/G/Bi/1 X003-0605

- 8 A felt figure of a seated Christ's Hospital pupil in uniform 6.5cm. £150-200

Museum reference X002-8250

- 9 SAXELBY, F. M. A Course in Practical Mathematics. London: Longmans, Green, and Co. 1905. 8vo, 438pp. Original green cloth with detached gilt lettered spine, fading to cover, rubbing to corners and edges. signed B.N. Wallis and A.L. Bowley £80-120

Museum reference 1992/0386/G/D/T X003-0504

- 10 Transactions of the Institution of Civil Engineers of Ireland, Dublin 1907, VOL. XXXIII 8vo, 263pp., (a booklet containing a chapter "Buttressed Masonry Dams"), together with Proceedings of the Cambridge Philosophical Society VOL VI PART IV. 1888, 8vo, both in poor condition with loose and torn covers, some pages not separated to the 2nd book £70-90

Museum references 1992/0386/G/L/B X003-0572M X003-0859

- 11 ROUTH, Edward John. Advanced Rigid Dynamics - The Advanced Part of a Treatise on the Dynamics of a System of Rigid Bodies. London: Macmillan and Co., Limited 1905. 8vo, 484pp. Original blue cloth with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. Together with 2 loose pages of pencil notes and equations. Sixth Edition 1905. £200-300

Museum reference 1992/0392/G/A1/4 X003-0713

- 12 RAUSENBERGER Professor F. The Theory of The Recoil of Guns with Recoil Cylinders. London: Crosby Lockwood and Son 1909. 8vo, 114pp. Original red cloth, gilt lettered spine . Fading to spine and cover, minor rubbing to corners and edges of spine. With fold out map. Initialled B.N.W £150-200

Museum reference 1992/0392/G/A1 C003-0580*

- 13 A STEWART, Wallace R. The Higher Text-Book of Heat, The Tutorial Physics Volume II. London: W.B. Clive University Tutorial Press Ltd. 1911. 12mo, 399pp. Original brown cloth with gilt lettered spine. Minor rubbing to corners and edges of spine. Signed B.N. Wallis £80-120

Museum reference 1992/0392/G/P/4 X003-0699

- 14 Aeronautics Technical Reports of the Advisory Committee For Aeronautics for the Year 1910-11. London Darling And Son 1911, 8vo, 134pp., bound in blue cloth with gilt lettering, fading to spine and cover, rubbing to corners and edges of spine, photographs, fold out plated throughout £50-70

Museum Reference 1992/0386/G/K/T X003-0511

- 15 ALEXANDER, Wm. Column and Struts, Theory and Practical Design. London: E. & F. N. Spon, Ltd., 1912. 8vo, 267pp. Original brown cloth with gilt lettered spine. Minor rubbing to covers and edges of spine. £30-40

Museum reference 1992/0386/G/K/B X003-0574

- 16 ANDREWS, Ewart S. Further Problems In The Theory And Design of Structures. London: Chapman & Hall, Ltd. 1913. 8vo, 236pp. Original green cloth with gilt lettered spine, minor rubbing to corners and edges of spine. Signed B.N. Wallis and also signed B.N. Wallis to the title page. Together with a typed signed letter from Ewart S. Andrews to Mr Wallis £200-300

The letter is dated 30th December 1921 and reads

Dear Mr. Wallis,

I have now had time to look at the treatment that you were good enough to send me with regard to the rolling load problem on page 186 of my book.

With regard to your query as to whether $c = b$ should be $c = l$, I think it is correct as printed because it is assumed that the point is between the load W_2 and the resultant. The remainder of your treatment seems to me to be perfectly sound and I have filed your note with a view to incorporating it in a revised edition of the book.

I would like to take this opportunity of congratulating you on the uniform excellence both in finish and treatment of the work which you have sent to me for correction through the U.C.C.

Yours sincerely,

(signed) Ewart. S. Andrews

Museum reference 1992/0392/G/U/4

- 17 MASTERMAN Commander E. A. R.N. Handbook on Rigid Airship No. 1 Parts I & II and Appendix 1913. Admiralty S Branch S.0281/13. 8vo., 213pp. Bound in blue tooled cloth, gilt title to spine, gilt "No.79" to top right front board. Fading to spine and cover, rubbing to corners and edges of spine Photos, diagrams and fold out coloured plates throughout. Signed to pastedown B.N. Wallis 1915 and with signature G Landey? £200-300

Museum Reference 1992/0386/G/D1/M X003-0554

- 18 MASTERMAN Commander E. A. R.N. Handbook on Rigid Airship No. 1 Parts I & II and Appendix 1913. Admiralty S Branch S.0281/13. 8vo., bound in blue tooled cloth, gilt title to spine, gilt "No.43" to top right front board. Fading to spine and cover, rubbing to corners and edges of spine, (spine detached from front edge), Errata list 1914 glued to front page, "S Branch" on title page crossed out and replaced "Air Dept." Photos, diagrams and fold out coloured plates throughout. Signed to pastedown B N Wallis and marked Shore Station Barrow in Furness £200-300

Museum Reference 1992/0392/L1/4 X003-0723

- 19 BESANT, W, H. A Treatise on Dynamics. London: G Bell and Sons, Ltd. 1914. 8vo, 443pp. Original green cloth, gilt lettered spine. Rubbing to the corners and edges of the spine. Fifth Edition, initialled B.N.W Dec 1940. Throughout the book there are many handwritten pencil notes and some equations, there is also a loose piece of paper with pencil written equation. £200-300

Museum reference 1992/0392/G/G/4 X003-0718

- 20 ATTWOOD, Edward L. Text-Book of Theoretical Naval Architecture. London: Longmans, Green and Co. 1916. 12mo, 494pp. Original blue cloth with with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine, torn library label stuck to front cover, some pages within the book with anomalies and stains to inner pages. Loose folded diagram to the back of the book. New Edition July 1916. £30-40

Museum reference 1992/0392/G/F/4 X003-0690

- 21 ANDREWS, Ewart S. The Theory and Design of Structures. London: Chapman & Hall, Ltd 1916. 8vo, 618pp. Original green cloth, green lettered spine. Some rubbing to corners and edges of the spine. Third Edition. Revised Reprint. Signed to title page B.N. Wallis £80-120

Museum reference 1992/0386/G/G/T X003-0507

- 22 GLAVILLE TAYLOR, R. An Introduction to the Differential and Integral Calculus and Differential Equations. London: Longmans, Green and Co. 1916. 12mo, 568pp. Original blue cloth with black lettered spine. Fading to spine and cover, rubbing to corners and edges of spine, some staining to inside pages. Red pen note made to index page 568. New Impression. £50-70

Museum reference 1992/0392G/G/1. X003-0610

- 23 JUDGE, Arthur W. The Properties of Aerofoils and Aerodynamic Bodies. London: Whittaker & Co 1917. 8vo, 298pp. Original blue cloth, gilt-lettered spine. Some fading to spine, minor rubbing to corners, occasional light foxing with folding diagrams. Signed B.N. Wallis

Some written pen notes page 6 £100-150

Museum reference 1992/0386/G/A/T X003-0503

- 24 **Alfred Egerton Cooper R.B.A. (British, 1883-1974) The Firth of Forth with the British Fleet from HMA 9 Airship, oil on canvas, circa 1916, signed recto, Bourlet labels verso, 69cm h x 89cm w, within a painted wood frame. ** Artist's Re-sale Rights may be payable on this lot. Provenance: Sir Barnes Wallis thence by descent. Exhibited: possibly "Airships in Peace and War" Prince's Gallery, Knightsbridge, September 1919. Note: The R.9 was the first airship on which Barnes Wallis worked, serving as an assistant at Vickers under Chief Designer H. B. Pratt, and was the first British rigid airship to fly. Alfred Egerton Cooper and Wallis were close friends from their time together in the Artists Rifles, a connection that lends particular resonance to this work. This painting may be among the earliest works executed in flight, or developed from sketches made in the air, and was very likely painted during the same flight as the photograph "An aerial view of a portion of the Grand Fleet at anchor in the Firth of Forth, taken from the British Airship R.9" (Imperial War Museum, cat. no. Q 20633). The painting is prominently displayed on the wall of Barnes Wallis's office in the 1955 film "The Dam Busters", widely regarded as one of the best-known and most beloved British war films of the post-Second World War era. (photo centre pages) £4000-6000

Museum reference 1992/0744/C

- 25 Handbook on Rigid 23 Class Airships 1918, Airship Department May 1918, 8vo, 86pp bound in blue cloth with debossed white text. Fading to spine and cover, minor rubbing to corners and edges of spine. Photos, diagrams and fold out coloured plates throughout. Signed B.N.Wallis to endpaper and stamped 26. Pastedown with glued confidential Government statement £200-300

Museum reference 1992/0392/G/K/4 X003-0722

- 26 Handbook on H.M. Airship, Rigid No. 9. Admiralty Department 1918, 8vo., 75pp. Bound in blue cloth with debossed white text. Fading to spine and cover, minor rubbing to corners and edges of spine. Photos, diagrams and fold out coloured plates throughout. Signed B.N.Wallis to endpaper and stamped 135, pastedown with glued confidential Government statement £200-300

Museum reference 1992/0386/G/C1/M

- 27 MORRIS, Captain Joseph. The German Air Raids on Great Britain 1914-1918. London: Sampson Low, Mason & Co., Ltd. 8vo, 306pp. Original red cloth, gilt lettered spine. Some fading to spine and cover, minor rubbing to corners and edges of the spine. With fold out maps and illustrations. Signed B.N. Wallis £150-200

Museum Reference 1992/0386/G/B/B X003-0557

- 28 SMITH, Charles. An Elementary Treatise on Solid Geometry. London: Macmillan and Co., Limited 1920. 12mo, 242pp. Original brown cloth. Spine missing, fading to covers, rubbing to corners and edges, stains to some of the inner pages. Multiple pages with pencil marks, written notes and some equations. Signed B. N. Wallis to pastedown £150-200

Museum reference 1992/0392/G/C1/4 X003-0714

- 29 PRATT H. B., Commercial Airships. London: Nelson 1920, 8vo, 235pp, Original blue cloth with gilt lettered spine, fading to spine and cover, rubbing to corners and edges of spine. Endpaper with dedication "With the author's compliment H B Pratt 11/11/20", endpaper also signed B.N. Wallis. Sir Barnes Wallis and H B Pratt worked together as young engineers on the R9 airship in 1914 £200-300

Museum reference 1992/0392/G/M/6 X003-0763

- 30 PARK, Whyrill E. A Treatise on Airscrews. London: Chapman & Hall, Ltd. 1920. 8vo, 308pp. Original blue cloth, gilt lettered spine. Stamped Airship Guarantee Co Ltd. Fold out propeller diagram. £80-120

Museum reference 1992/0386/G/J/B X0003-0575

- 31 EDSEY, Edwin. General Physics for Students. London: Macmillan and Co., Limited 1920. 12mo, 632pp. Original green cloth, black lettered spine. Some fading to spine, tear and rubbing to spine and minor rubbing to corners. Inscription To Dr Frank Teed with the authors' compliments. £30-40
- Museum reference 1992/0386/G/P/T X003-0516*
- 32 MILLAR, J. B. Elements of Descriptive Geometry. London: Macmillan and Co., Limited 1920. 12mo, 202pp. Original blue cloth with black lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine, stains to inner pages, page to the back not separated. Signed B.N.Wallis £80-120
- Museum reference 1992/0392/Q/J/4 X003-0694*
- 33 Vickers Ltd - A side view of the R80 Airship in Flight at Walney Island, Barrow in Furness, gelatin silver print photograph, published by Vickers circa 1920, 56cm x 70cm, within a stained wood frame 66cm x 80cm. Provenance: Sir Barnes Wallis thence by descent. Note: The R.80 was a British rigid airship, first flown on 19 July 1920, and notable as the first fully streamlined airship constructed in Britain. Designed by Barnes Wallis and H. B. Pratt for Vickers, it was originally commissioned as a military project for the British Admiralty but was ultimately completed for commercial passenger service. In practice, however, the R.80 proved too small to operate viably in this capacity. After a brief period assisting in the training of personnel from the United States Navy who were to crew the ZR-2 airship, the R.80 was withdrawn from service and was eventually scrapped in 1925 £100-150
- Museum reference 1992/0748/C*
- 34 FORSYTH A. R. A Treatise on Differential Equations. London: Macmillan and Co., Limited 1921. Fifth Edition 8vo, 580pp. Original green cloth with gilt lettered spine. Fading to spine and cover, rubbing to corners and edges, possible rodent damage to edges of cover and spine. Stamped Airship Company Guarantee Company Ltd to book block. £30-40
- Museum reference 1992/0392/G/V/4 X0003-0705.*
- 35 LARMUTH, Luke Hamilton, Airships Sheds and Their Erection. London: Clowers and Sons 1921. 12mo, 61pp. Paper bound, diagrams throughout and 4 large fold out plates. Covers loose with sellotape repairs, pages toned in places. £30-40
- Museum reference 1992/0392/G/L/4 X003-0724*
- 36 VISSERING, Harry. Zeppelin, The Story of a Great Achievement. Chicago: Wells And Company 1922. 4to, 59pp. Original green cloth. Some rubbing to edges and spine. Signed B.N. Wallis £100-150
- Museum reference 1992/0392/G/Z/6 X003-0783*
- 37 Technical Report of the Advisory Committee for Aeronautics for 1921-22, Vol. 3. Airships. London: Published by His Majesty's Stationery Office. 1924. Lg. 8vo, pages 637 - 1117. Original grey cloth with black lettered spine. Rubbing to corners and edges of spine, possible rodent damage to spine, ink marks to front cover, stain to inside page. Stamped Airship Company Guarantee Company Ltd to book block £50-70
- Museum reference 1992/0392/G/K/1 X003-0589*
- 38 A piece of notepaper by Sir Barnes Wallis detailing calculations of airship fuel requirements for a 16 day round trip written in red ink with diagram verso, together with the 1924 Engineer Yearbook (split in half, loose boards and pages) within which it was found. 2905pp. 31st Edition. Yearbook signed B.N. Wallis to first page (photo centre pages) £300-400
- Museum reference 1992/0392/G/R/3 X003-0673*
- 39 PRESCOTT, John. Applied Elasticity. London: Longmans Green and Co. 1924. 8vo, 656pp. Original blue cloth with faded lettered spine. Fading to spine, minor rubbing to corners and edges of spine. Signed B.N. Wallis £80-120
- Museum reference 1992/0386/G/E/M X003-0527*

- 40 LEWITT, E. H. *The Rigid Airship - A Treatise on The Design and Performance*. London: Sir Isaac Pitman & Sons Ltd. 1925. 8vo, 283pp. Original blue cloth, gilt lettered spine. Fading to spine, rubbing to corners and edges of spine. Signed B.N. Wallis £80-120

Museum reference 1992/0392/G/B1/6 X003-0781

- 41 2 vols. NEON. *The Great Delusion: A study of Aircraft in Peace and War*, London: Ernest Benn 1927. 8vo, bound in blue cloth, signed B.N. Wallis to endpaper together with MORLEY, Arthur. *Strength of Materials*. London: Longmans Green and Co. 1925. 8vo, 555pp. Original green cloth, gilt lettered spine. Minor rubbing to corners and edges of spine, wear to the edges of the covers. Stamped Airship Company Guarantee Company Ltd to book block £100-150

Museum reference 1992/0392/G/N/5 X003-0756

- 42 Chambers Educational Course. *Mathematical Tables*. London: W. & R. Chambers, Limited. 12mo, 454pp. Original red cloth with black lettered spine. Spine and cover in poor condition, staining and foxing to paste down, endpaper and other pages. New Edition. With Airship Guarantee Company Limited stamp to pastedown. £30-40

Museum reference 1992/0386/G/K/M X003-0541

- 43 **Alfred Egerton Cooper R.B.A. (British, 1883-1974) "Putting on the outer fabric covering of the R100 in the shed at Howden", oil on canvas, signed and dated 1928 recto, additionally signed and dated 1928 with Bourlet label verso, 64cm x 77cm, within a painted wood frame. 76cm x 88cm. ** Artist's Re-sale Rights may be payable on this lot Provenance: Sir Barnes Wallis thence by descent. Note: The painting was reproduced in full colour in *The Sphere*, 28 September 1929, p. 26. It is prominently displayed on the wall of Barnes Wallis's office in the 1955 film "The Dam Busters", widely regarded as one of the best-known and most beloved British war films of the post-Second World War era, and appears in several publicity photographs of Barnes Wallis, including Roger George Clark's portrait of Sir Barnes Wallis at his desk, now in the collection of the National Portrait Gallery £1000-2000

Museum reference 1992/0719/C

- 44 Two sections of undoped linen possibly from an Airship stored in a brown envelope addressed to Sir Barnes Wallis' home address and postmarked Chichester November 1971 hand written to verso R100 fabric before 'doping' (not from drawers) 77cm x 75cm and 111cm x 189cm with sewn name tag M.F.Wallis (both cut) £50-70

- 45 DIEHL, Walter S. *Engineering Aerodynamics*. New York: The Ronald Press Company 1928. 8vo, 288pp. Original blue cloth with gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Initialled B.N.W. Feb 1930 £50-70

Museum reference 1992/0392/G/H1/4 X003-0719

- 46 A 1930's tan leather 3 section satchel with leather straps and brass lock 29cm x 40cm x 9cm £100-200

Museum reference X003-2329

One of the straps has a slight tear, the leather is dry, signs of ink stains in places and some wear to the bottom corners.

- 47 5 vols. LONEY, S. L. Plane Trigonometry Part II. Cambridge: At The University Press 1918. 12mo, 211pp. Pen comments and formula bottom page 94, pencil ticks throughout. Original blue cloth with black lettered spine, fading to spine and cover, minor rubbing to corners and edges of spine, staining to endpaper and back pages. Reprinted edition 1918. Signed B.N. Wallis. GHEURY DE BRAY, M. E. J. Exponentials Made Easy or The Story of "Epsilon". London: Macmillan and Co., 1921. 12mo, 253pp. Original green cloth with black lettered spine, fading to spine and cover, rubbing to corners and edges of spine, staining to endpaper and back pages. Mechanical World Year Book 1924. Manchester: Emmott & Company, Limited 1924. 12mo, 173pp. Original red cloth with black lettered spine, fading to spine and cover, damage to spine, rubbing to corners and edges. Thirty-Seventh Year of Publication. Signed B.N. Wallis. DUNKERLEY, S. Mechanism. London: Longmans, Green and Co. 1920. 8vo, 447pp. Original green cloth with gilt lettered spine, fading to spine and cover, minor rubbing to corners and edges of spine. Third Edition, New Impression. Signed B.N. Wallis. STEWART, R. Wallace. The Tutorial Physics Volume IV. The Higher Text-Book of Magnetism & Electricity. London: W.B. Clive University Tutorial Press Ltd. 1920. 12mo, 750pp. Original brown cloth with gilt lettered spine. Spine damaged, rubbing to edges and to spine, severe ink staining to cover and edges of pages. Ex Libris Burlington House Cambridge to pastedown. Seventh Impression (Second Edition). Many pages marked with ticks, paragraphs identified with pencil lines and some pages marked in pencil "Omit". £200-300

Museum references 1992/0392/G/1K/1 X003-0614, 1992/0392/G/X/1 X003-0601, 1992/0392/G/T/3 X003-0676, 1992/0386/G/T/T X003-0530, 1992/0386/G/P/M X003-0536.

- 48 SPANNER, E. F. About Airships. London: E.F. Spanner, 9 Billiter Square E.C.3. 8vo, 206pp. Original blue cloth, gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine, tear and damage to spine. First Edition January 1929. Signed B.N. Wallis £80-120

Museum reference 1992/0392/G/A/6 X003-0782

- 49 **Alfred Egerton Cooper R.B.A. (British, 1883-1974), HMA 9 Airship in Flight over Norfolk, oil on canvas, signed and dated 1917 recto, Bourlet label verso, 61cm h x 91cm w, within a painted wood frame 72cm x 103cm. ** Artist's Re-sale Rights may be payable on this lot Provenance: Sir Barnes Wallis thence by descent. Exhibited: possibly "Airships in Peace and War" Prince's Gallery, Knightsbridge, September 1919. The No 9 was the first airship Barnes Wallis worked on as an assistant at Vickers with Chief Designer H B Pratt and the first British airship to fly. A E Cooper and Barnes Wallis were close friends and Cooper is thought to have gifted the picture to Wallis. The painting likely depicts flight over Norfolk as the Airship was stationed from October 17th 1917 at Royal Naval Air Service Station Pulham (later RAF Pulham). The painting is clearly visible in many publicity photographs of Wallis in his office. £3000-4000

- 50 A plastic diorama depicting the R.100 airship docked its mooring mast in St. Hubert Airfield, Quebec, Canada on August 3, 1930. 36cm h x 55cm l x 22cm d. The model visible in the background of many photos of Barnes Wallis' office and depicts the R.100 after its 78 hour transatlantic flight to Canada. £300-400

The Airship is in good condition but has a slightly damaged nose cone. The mast tower is snapped, as is the associated tower scaffold (broken pieces supplied in a bag), the models perspex cover is cracked and a small section is missing to the rear bottom right-hand corner.

Museum reference 1992/0771/M

- 51 COKER E.G. and FILON, L.N.G. A Treatise on Photo-Elasticity. Cambridge: At The University Press 1931. 4to, 720pp. Original black cloth with gilt lettered spine. Minor rubbing to corners and edges of spine. The book with 16 coloured plates with protective pages. £30-40

Museum reference 1992/0392/G/H/T X003-0802

- 52 A chrome desk model/paperweight of an R.100 airship 20cm l x 4cm w, together with 2 volumes of Aircraft Engineering, February 1930 and June 1930, both with Department of Aeronautical Research & Development British Aircraft Corporation Ltd, Weybridge Division stamp to the front. £300-400

Museum references 1992/0715/M, X003-1120, X003-1119

- 53 Report of the R.101 Inquiry booklet, London His Majesty's Stationery Office 1931, paper bound booklet, 122pp, the cover signed B.N. Wallis. With Wallis' multiple critical marginal notes throughout. £300-400

The R.101 was a 'rival' Airship to Wallis' R.100, its staff having being appointed by the Air Ministry. The R.101 crashed over France on its maiden voyage to India on 5th October 1930 killing 48 people on board. The crash effectively ended Airship development in Britain due to the perceived risks.

Museum reference 1991/0392/G/O/4 X003-0698

- 54 Report of the R.101 Inquiry booklet, London His Majesty's Stationery Office 1931, paper bound booklet, 127pp, the cover signed "FROM P.L. TEED TO B.N WALLIS" (in different hands), similar to Lot 53, though a scarcity of marginal notes. £80-120

Museum reference 1992/0392/G/M/1 X003-0591

- 55 WHALE, George. British Airships, Past, Present & Future. London: John Lane 1919. 8vo, 244pp. Original grey cloth, maroon lettered spine. Fading to spine and cover, rubbing to corners and edges of spine, third inner page coming loose from book, foxing in places. The book with pull out diagrams. Signed B.N. Wallis £80-120

Museum reference 1992/0392/G/N/5 X003-0738

- 56 FRY, Thornton C. Probability and Its Engineering Uses. New York: D Van Nostrand Company, Inc. 1929, 8vo, 470pp. Original blue cloth with gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Second Printing. Pencil written notes to the bottom of page 148. (photo centre pages) £100-150

Museum reference 1992/0386/G/V/M X003-0548

Sir Barnes Wallis Vickers to Dam busters (1930-1945)

1931–1945: Between 1931 and the end of World War II, Wallis continued his work at Vickers, where he refined his geodetic aircraft construction method and contributed to the design of aircraft such as the Vickers Wellington used by the Royal Air Force. During the war he also developed several innovative weapons, including the Upkeep used in Operation Chastise 'Dam Busters' raid. Later in the war he designed the powerful Tallboy and Grand Slam, which were used to destroy the Tirpitz Battleship and the Bielefeld Viaduct.

- 100 ROUTH, Edward John. Elementary Rigid Dynamics - The Elementary Part of a Treatise on the Dynamics of a System of Rigid Bodies. London: Macmillan and Co, Limited 1930. 8vo, 443pp. Original blue cloth, gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. Initialed B.N.W. 1943 £50-70

Museum reference 1992/0386/G/C/B X003-0558

- 101 MILNE-THOMSON, L.M. and COMRIE, L.J. Standard Four-Figure Mathematical Tables. London: Macmillan and Co., Limited 1931. 4to, 245pp. Original blue cloth with gilt lettered spine, Rubbing to corners and edges of spine, scratch marks to covers. Additional loose double sided, un-numbered copy of pages 244 and 245. Initialed B.N.W. Feb 1941 £80-120

Museum reference 1992/0392/G/F/T X003-0798

- 102 A 1930's double sided beech and plastic ruler by Norton and Gregory Ltd London and Glasgow having measurements of fractions of metres and feet, 45cm £100-150

Museum reference 1992/0762/I

- 103 YOUNGER, John E and WOODS, Baldwin M. Dynamics of Airplanes and Airplane Structures. New York: John Wile & Sons Inc. London: Champion & Hall, Limited 1931. 8vo, 263pp. Original blue cloth, gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. £30-40

Museum reference 1992/0392/Q/Z/4 X003-0712

- 104 LOW, Bevis Brunel. Mathematics, A Text-Book for Technical Students. London: Longmans, Green and Co, 1931. 8vo, 448pp. Original blue cloth, gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine, tear to edge of spine. Signed B.N. Wallis. £80-120

Museum reference 1992/0386/G/W/T X003-0519

- 105 MILNE-THOMSON L.M. Die Elliptischen Funktionen von Jacobi. Berlin: Verlag von Julius Springer 1931. 8vo, 69pp. Original green cloth with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. £30-40

Museum reference 1992/0392/G/X/4 X003-0707

- 106 The Royal Aeronautical Society. Handbook of Aeronautics. London: Gale & Polden Ltd. 8vo, 703pp. Original blue cloth with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine, foxing to pastedown, endpaper and back papers. First Edition 1931. Signed B.N. Wallis Oct.1931 £80-120

Museum reference 1992/0386/G/W/M X003-0549

- 107 A Lockheed hydraulic braking system bleeder drain tube in a circular metal tin 7.5cm £50-75

Museum reference X001-264

- 108 SALMON, E. H. *Materials and Structures*. London: Longmans, Green and Co 1931. 8vo, 638pp. Original maroon cloth with gilt lettered spine. Minor rubbing to covers and edges of spine. Signed B.N. Wallis £80-120
- Museum reference 1992/0392/G/L/1 X003-0590*
- 109 LAMB, Sir Horace. *Hydrodynamics*. Cambridge At The University Press. 8vo, 738pp. Original blue cloth, gilt lettered spine, dust cover. Sixth Edition 1932. £40-60
- Museum reference 1992/0386/G/H/B X003-0563*
- 110 *Proceedings of The Royal Society, Series A*. Vol. 139. No. A 838, February 1, 1933. 4to, 474pp. A booklet with written calculation to reverse titled "Notations for Paper" by G I Taylor relating to a chapter titled "Air Pressure on a Cone Moving at High Speeds". Loose covers £400-500
- Museum reference X003-8865*
- 111 USHERWOOD T.S. and TRIMBLE C. J. A. *Intermediate Mathematics (Analysis)*. London: Macmillan and Co., Limited 1933. 12mo, 457pp. Original red cloth with black lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Signed B.N. Wallis £80-120
- Museum reference 1992/0392/G/J/1 X003-0588*
- 112 JAHNKE Dr Eugen and EMDE Fritz. *Funktionentafeln - Tables of Functions*. Leipzig: Verlag Und Druck Von B.G. Teubner in Leipzig Und Berlin 1933. 8vo, 328pp. Original brown cloth with black lettered spine. Minor rubbing to corners and edges of spine. Signed B.N. Wallis £80-120
- Museum reference 1992/0386/G/O/M X003-0537*
- 113 PYE, D. R. *The Internal Combustion Engine Vol. II The Aero-Engine*. Oxford: Clarendon Press 1934. Lg. 8vo, 398pp. Original blue cloth, gilt lettered spine, brown dust cover £30-40
- Museum reference 1992/0386/G/J/T X003-0510*
- 114 PYE, D. R. *The Internal Combustion Engine Vol. II The Aero-Engine*. Oxford University Press 1934. Lg. 8vo, 398pp. Original blue cloth, gilt lettered spine with pencil note J.C Engines Cat 10/x/46 and Vickers-Armstrongs Limited stamp to title page £30-40
- Museum reference 1992/0386/G/1/T X003-0509*
- 115 RAMSEY, A. S. *A Treatise on Hydromechanics, Part II Hydrodynamics*. London: G. Bell and Sons, Ltd. 1935. 8vo, 412pp. Original red cloth, gilt lettered spine. Fourth Edition. Initialled B.N.W. Dec 1940 £80-120
- Museum reference 1992/0392/G/S/4 X003-0702*
- 116 WOOD Karl D. *Technical Aerodynamics*. New York: McGraw-Hill Book Company, Inc. 1935. 8vo, 320pp. Original blue cloth with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. First Edition. Initialled B.N.W. 1936 £80-120
- Museum reference 1992/0386/G/Y/M X003-0550*
- 117 ATTWOOLL A. W. and BROOME D. C. *Trinidad Lake Asphalt*. London: The Baynard Press, 1935. Lg. 8vo, 56pp. Original black cloth with gilt lettered spine. £50-70
- Museum reference 1992/0392/G/L/4 X003-0706*
- 118 EWALT, POESCHL AND PRANDTL. *The Physics of Solids and Fluids Chapters IV to VII*. Blackie & Son 1936, 8vo, pages numbered 153 to 396. Half bound in red morocco with burgundy boards, gilt lettering and decoration to banded spine £50-70
- missing title pages.*
- Museum reference 1992/0386/G/H/M X003-0524*
- 119 A 1930's pamphlet - *Visiting Methods for the Admissions and the Ordinary and Extra Control of Flyers in Italy*. 16pp. (B.N. Wallis written to loose cover), containing a loose plan of the Benito Mussolini Medical Institute and photographs of equipment used to test Civil and Military pilots of suitability for flight £50-70
- Museum reference X003-858*

- 120 VON ZEERLEDER, Alfred. The Technology of Aluminium and its Light Alloys. Amsterdam: Nordemann Publishing Company 1936. Lg. 8vo, 301pp. Original black cloth with gilt lettered spine with Vickers-Armstrongs Limited stamp dated 14 Feb 1939 to end pages and title page. Minor rubbing to covers and edges of spine. £30-40

Museum reference 1992/0392/G/Q/1 X003-0595

- 121 LANCHESTER, F. W. The Theory of Dimensions and Its Application for Engineers. London: Crosby, Lockwood & Son Ltd 1936. 12mo, 314pp. Original cream cloth, with gilt lettered spine. Cover in poor condition with sellotape over the spine. Initialled B.N.W. £70-90

Museum reference 1992/0386/G/Q/M X003-0535

- 123 GLAUERT, H. The Elements of Aerofoil and Airscrew Theory. Cambridge: At The University Press 1937. 8vo, 228pp. Original red cloth, silver lettered spine. Fading to spine, minor rubbing to corners. Reprinted edition 1937. Initialled B.N.W. Dec 1940 £80-120

Museum reference 1992/0392/H/R/1 X003-0608

- 124 TIMISHENKO. S. Vibration Problems in Engineering, London: Constable & Company Ltd, Second Edition 1937, 8vo, 469pp. Original blue cloth, gilt lettering. Minor rubbing to corners and edges of spine £30-40

Museum Ref 1992/0392/G/0/1 X003-0593

- 125 GOODWIN, Sir George and others, a collective work. The Mechanical Properties of Fluids. London and Glasgow: Blackie & Son Limited 1937. 8vo, 376pp. Original blue cloth with gilt lettered spine. Fading to spine, minor rubbing to corners and edges of spine. Second Edition. £40-60

Museum reference 1992/0386/G/1/B X003-0564

- 126 TEED, Litherland P. Duralumin And Its Heat-Treatment. London: Charles Griffin & Company, Limited 1937. 8vo, 117pp. Original red cloth with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. Dedicated and dated by the author to the front endpaper and possibly by mistake to the back inside cover "To B.N.W. With all good wishes from the author 8/12/36." £60-80

Museum reference 1992/0386/G/N/M X003-0538

- 127 THOMPSON, Silvanus P. Calculus Made Easy. London Macmillan and Co., Limited 1936. 8vo, 301pp. Original green cloth with black lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Second Edition Enlarged. Signed B.N. Wallis and written in pencil to the back page Capt. Cecil Chichester RN, Elmsleigh, Lyme Regis. £100-150

Museum reference 1992/0392/G/T/1 X003-0598

- 128 SOUTHWELL. R.V.. An Introduction To The Theory of Elasticity For Engineers and Physicists. Oxford: At The Clarendon Press 1936. 8vo, 509pp. Original blue cloth, gilt lettered spine. Some fading to spine, minor rubbing to corners and edges of the spine. Signed B.N. Wallis £100-150

Museum reference 0992/0386/G/B/T X003-0505

- 129 A polished chrome model of a Vickers Wellington Bomber in flight with rotating propellers, on a shaped black acrylic base, visible on Sir Barnes Wallis' desk in public photos 16cm h x 20cm w x 26cm d £300-400

The base with handwritten label V.ARM. 91.

The model has some light scratches in places and some small areas of minor pitting below the wings and tail stabilisers. It is otherwise in good condition.

- 130 PIERCY, N.A.V. Aerodynamics, London: The English Universities Press Ltd. 1937, 8vo, 423pp. Original blue cloth, gilt lettered spine. Some minor rubbing to corners and edge of spine. Book plate From The Library of Barnes Neville Wallis, C.B.E., F.R.S. Handwritten notes and equations on pages 80, 382, 383, 384, 385, 386, 387 and a created page 424 £300-400

Museum reference 1992/0386/G/G/T X0003-0501

- 131 BAIRSTOW, Leonard. Applied Aerodynamics. London: Longmans, Green and Co. 8vo, 808pp. Original red cloth, gilt lettered spine. Fading to spine and cover, rubbing to corners and edges of spine. Second Edition. Initialled B.N.W. 1939 £100-150

Museum reference 1992/0386/G/F/T X003-0506

- 132 PLUMMER, H. C. Probability and Frequency. London: Macmillan and Co., 1940. 8vo, 265pp. Original green cloth, gilt lettered spine. Minor rubbing to corners and edges of spine. Initialled B.N.W. Dec. 1940 £80-120

Museum reference 1992/0392/0/Z/5 X003-0753

- 133 A collection of research pamphlets (14) from 1927-1940 mainly by The Aeronautical Research Committee to include : The Strength of Tubular Struts 1927, 44pp. (initialled B.N.W to front cover), A Non Dimensional Form of The Stability Equations of an Aeroplane March 1927, Light Alloys For Aeronautical Purposes 1934, 32pp., Summary of The Present State of Knowledge Regarding Sheet Metal Construction 1933, 20pp. (back cover missing), Buckling of Thin Plates in Compression 1933, 21pp. (back cover missing), Technical Report Into The Accident To The Aeroplane G-AAZK at Meopham Kent on 21st July 1930, published January 1931, 92pp., The Size-Grading of Sand by Wind 1937, The Optimum Size of Models for Studying Flow Through Nest of Tubes 1939, 9pp., Resistance To Flow Through Nest of Tubes 1939, 20pp. The Manufacture of High Strength Light Alloy Extrusions 1938-1939, 39pp., The Use of Model Data in Aeroplane Design 1939, 16pp., The Stresses in a Circular Ring Supported by Frictionless Radial Pins 1940 marked With the author's compliments (x2) and Sound Control in Buildings 1940 £80-120

Museum references X003-0860, 1992/0386/G/Y/T X003-0520, X003-0846, X003-0845, X003-0815, X003-0822, X003-0820, X0003-0821, X003-0831, X003-0834, X003-0835, X003-0806

- 134 BECK, Adolf. The Technology of Magnesium and Its Alloys. London: F A Hughes & Co. Limited 1940. 8vo, 512pp. Original maroon cloth, gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. £40-60

Museum reference 1992/0392/G/E1/4 X003-0715

- 135 A wooden adjustable catapult designed for and used in the 1955 movie "The Dam Busters" by Michael Redgrave (playing Sir Barnes Wallis). The catapult represents that used by Wallis in his 1941 April Bank holiday garden marble experiments, to prototype the concept of the bouncing bomb. The catapult raised on triform base and mounted on metal collar with tripod supports. The catapult firing rail adjustable in angle by a wing nut, having a projectile receptacle attached to elastic cord running along the top rail of the device. The rail fitted a trigger to release the projectile. 138cm h, catapult rail 93cm l (photo centre pages) £2000-3000

Museum reference L001-0615

- 136 A collection of marbles belonging to Sir Barnes Wallis' daughter, Elisabeth Gaunt (now 93). These marbles were famously used by Wallis during his garden experiment in April 1942 whilst developing the conceptual principles behind the Dam Busters 'bouncing bomb'.

Of the day Elisabeth recalls "I remember the Easter bank holiday weekend when Daddy came home with a strange device and placed it in front of a metal wash tub that he had filled with water in the garden. He then asked if he could borrow my marbles for an experiment. I was fiercely protective of my marbles but reluctantly agreed, I was very worried in case any of my precious marbles were lost, sadly some of them did get chipped."

Elisabeth's late sister Mary Stopes-Roe, also reflected on these formative experiments, recalling "We had this wonderful experiment at our family home, where my father set up the washtub and got a catapult made by his department. He altered the angle of the slant at which the ball was delivered and the distance from the water, and then he bounced my sister's marbles, which she has never forgotten, the fact that they were her marbles."

Mrs Gaunt has displayed the marbles over the years at various events and they have always been in her possession. (photo centre pages) £20000-30000

- 137 BACON, Admiral Sir Reginald and MCMURTRIE, Francis E. Modern Naval Strategy. London: Frederick Muller Ltd. 8vo, 208 pp. Original black cloth, white lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine, some minor foxing in places. Initialed BNW Salisbury Feb 15th 1945 and inscription To N Spark. With the authors best wishes Xmas 1940 R H Bacon. Having a loose leaf with pages numbers noted on which comments have been written in pencil £80-120

Museum reference 1992/0392/G/G/5 X003-0731

- 138 KARMAN. Theodore V and BIOT, Maurice A. Mathematical Methods in Engineering. New York and London: McGraw-Hill Book Company, Inc. 1940. 8vo, 505pp. Original black cloth, gilt lettered spine. Minor rubbing to corners and edges of spine. First Edition, Second Impression. Initialed B.N.W. 1940. Handwritten pencil notes with diagram to the back page £80-120

Museum reference 1992 0386/G/M/T X003-0512

- 139 A Confidential handbook - 53.3 c/m Weymouth Torpedo for Turkish Destroyers. Vickers-Armstrongs Ltd. 1940. 4to, 9pp. with 16 pull out cross section plates of torpedos. Original blue cloth, gilt lettering. Rubbing to corners and edges of spine. £100-150

Museum reference 1992/0386/G/Q/T X003-0521

- 140 A 2 inch aluminium sphere of the type used in the Teddington ship tanks during the development of the Golf Mine "bouncing bomb". Discovered in a box of Sir Barnes Wallis' lectures slides on the "Dam Busters" raid, the spheres were the next evolutionary step after the garden marbles leading eventually to the development of the Highball and Upkeep bombs.

Between 9 June and 10 September 1942, Wallis made use of one of the two large indoor water tanks of The National Physical Laboratory at Teddington on at least 18 occasions, he stated "I moored a wax model of a battleship several hundred feet up the tank, broadside on. We fired 2in diameter balls at it, when of course after hitting the freeboard of the ship, the sinking velocity of the ball combined with back-spin to move it towards the ship, and by adjusting the mean density of the ball we were able to pass it right underneath "the soft underbelly", to quote Winston Churchill. (photo centre pages) £10000-15000

- 141 ALLEN, Edgar C. Machinery's Screw Thread Book. London: Machinery Publishing Co, Ltd 1940, 8vo, 147pp. Orange card cover with black lettered spine. Fading to spine, some minor rubbing to corners and edges of spine. Pastedown and endpaper with stuck labels "MR. WALLIS' PRIVATE COPY". Initialled to front cover B.N.W. £80-120

Museum reference 1992/0392/G/H/4 X003-0692

- 142 DIEHL, Walter Stuart. Engineering Aerodynamics. New York: The Ronald Press Company. 8vo, 556pp. Original green cloth, gilt lettered spine. Some rubbing to corners and edges of the spine. Fourth Printing, July 1940. Initialled B.N.W. April 1941 £100-150

Museum reference 1992/0386/G/E/T X003-0502

- 143 A 1942 A5 calendar notepad by Napier bound in marbled green calf initialled in gilt B.N.W, half empty with top sheet having pencilled diagrams of what appears to be a tunnel (or support structure of Italian dams) with dimensions having a round object following a dotted curve. One other loose sheet having technical drawing of and circular diagrams (photo centre pages) £400-600

Museum reference X001-3414

- 144 A pair of cross section plans of the Mohne Dam to illustrate the intended path of the Upkeep mine stencilled "CROSS SECTION OF MOHNE DAM" and "CROSS SECTION OF UPPER PART OF MOHNE DAM".

The main dam plan displaying a blue mine against the dam freeboard and another example of the red mine further down at 30 metre depth (the detonation point). The water has been added with a cumbersome blue crayon/pencil, the torpedo nets indicated by a yellow crayon buoy. At the top of the plan is a pencilled skimming bounce motion and there are pencilled formulae to the centre of the plan. A label bottom right stating Dr. Barnes Wallis used the plan to brief 617 Squadron on the night of the raid. Plan framed 83cm h x 109cm w (unframed x 73cm h x 100.5cm)

The upper dam plan details a close up view of the mine striking the freeboard of the dam, the water side in coloured blue crayon, and then another depiction of a red mine at 30 metres depth - a light red pencil indicates 'detonation depth'. Plan framed 82cm h x 94cm w, (73cm h x 84.5cm w unframed)

Both plans label to verso "loaned to RAF Museum by Sir Barnes Wallis" together with RAF stock label circa 1971. (photo centre pages) £10000-15000

Museum reference L001-2054

There is dirt to the upper left portion of the 'zoomed out' Dam plan, they have all been fold at one time before framing so the fold lines are dirty. We would surmise the plan were stored for a time folded with the zoomed out plan on top - hence the dirt on the top left section which would have been the exposed section wherever it was stored by Sir Barnes Wallis. Upon removal of the frames it would appear the plan papers have been mounted onto the hardboard backing.

- 145 PIAGGIO, H. T. H. Differential Equations - An Elementary Treatise on Differential Equations and Their Applications. London: Bell 1942 8vo 259pp. Original blue cloth, gilt lettered spine. Notepaper with pencilled triangles to page 47. Minor rubbing to corners and edges of spine. Signed B.N. Wallis £200-300

Museum reference 1992/0392/G/S X003-0754

- 146 MANLEY R.G. Fundamentals of Vibration Study. London: Chapman & Hall Ltd. 1942. 8vo, 128pp. Original red cloth, gilt lettered spine. Some fading to spine, minor rubbing to corners. First Published 1942. Initialled B.N.W. Sept. 1942 £100-150

Museum reference 1992/0386/G/ X003-0515

- 147 Composed by the Fluid Motion Panel of the Aeronautical Research Committee and Others, edited by S Goldstein, Modern Developments in Fluid Dynamics Volume I. Oxford: At The Clarendon Press. 8vo, 330pp. Original blue cloth with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. First Edition 1943. Some underlined text and written notes in pencil on page 327 and notes to page 329 together with a note with hand written equations. £200-300

Museum reference 1992/0386/G/Z/T X003-0529

- 148 Modern Developments in Fluid Dynamics Volume II. Oxford: Clarendon Press 1943. Lg. 8vo, 702pp. Original blue cloth, gilt lettered spine. On page 601 is a taped folded handwritten page detailing notes and formulae titled "Heat Transfer, Laminar Motion". Fading to spine and cover, minor rubbing to corners and edges of spine. (photo centre pages) £600-800

Museum reference 1992/0386/G/A1/T X003-0523

- 149 Barnes Wallis' facsimile copy of the 617 Squadron Grant of Arms granted in March 1944. The badge symbolises the successful attack on the dams in May 1943 with the lightning flashes symbolising the three dams attacked. The French motto "Apres Moi Le Deluge" translating as "After me the flood". The paper is creased and stained and framed in a contemporary 1940's perspex frame with green border 18cm h x 15cm w £400-600

150 Two black and white oak framed aerial photographic prints of the Mohne Dam before and after the Operation Chastise "Dam Busters" strike on May 16th 1943, the post strike photograph signed by surviving members of 617 Squadron also ground crew and admin staff, notably Wg Cdr Guy Gibson V.C DSO DFC whose signature is direct centre over the water rushing through the breach in the dam. 105cm h x 105cm w (89.5cm h x 89.5cm w unframed) (photo centre pages) £10000-15000

In June 1943 after the Investiture ceremony for 617 Squadron at Buckingham Palace for their involvement in Operation Chastise, a dinner was held at the Hungaria Restaurant, London, given by the A.V. Roe & Company (Avro) which built the Avro Lancaster. The photograph was signed at the dinner and Wg Cdr Guy Gibson is photographed signing his name on the centre. Later photos of Sir Barnes Wallis show the Dam photos hanging in his office.

Signatures include :-

*Wg Cdr Guy Gibson
Fg Off Edward C Johnson
Flt Sgt George A Deering
Plt Off Lance Howard
Fg Off Harold S Hobday
Flt Sgt Len J Sumpter
Flt Lt Harold Wilson
Roy Chadwick
Henry Albert "Sam" Brown
Mutt Summers
Flt Lt R D Trevor-Roper DFM
Plt Off Harlo Taerum
Flt Lt Jack Leggo
Flt Lt Joe C McCarthy DFC, RCAF
Flt Sgt D A MacLean
Flt Lt David J H Maltby DFC
Plt Off John Fort
Sgt Vivian Nicholson
Flt Sgt Tammy Simpson RAAF
Cliff Caple (Armt)
Plt Off Frederick Spafford
Flt Lt Bob Hay
Flt Sgt George Powell
Sgt John Pulford
Sgt Jim Heveron
Sgt Taylor
Sgt J L H Cammack (Electrician - Ground staff)
Flt Lt Harry Humphries
Flt Lt Les Munro*

- 151 A Commander Of The Most Excellent Order of The British Empire, Civil Division silver gilt neck badge, 2nd Type, with original ribbon, by Garrard and Co Ltd, awarded to Sir Barnes Wallis in 1943, contained in original black fitted case with gilt lettering. £500-600

This lot is in good condition having no scratches or damage.

Museum reference X001-2425

- 152 A wooden model of Tallboy (Medium) Bomb 32cm, raised on a mahogany stand with brass plaque marked Tallboy (Medium) 12,000 LB. 1/20 scale. The Tallboy was the first bomb Wallis designed after the success of the bouncing bomb. The bomb was so large, there were no aircraft capable of lifting it to its optimal altitude but it could be dropped from a lower height and would enter the earth at near supersonic speed, penetrating to a depth of up to 20m before exploding. The Tallboy was used on strategic German targets such as V-2 rocket launch sites, the V-3 supergun bunker, submarine pens and the battleship Tirpitz, as well as large civil constructions such as viaducts and bridges £400-600

Museum reference 1992/0766/M

- 153 A Sheffield stainless steel pocket knife by Southern and Richardson having mother of pearl handle and blade stamped Immaculate Stainless (found within the Tallboy bomb model whilst cataloguing). £70-90

- 154 A wooden model of The Grand Slam Bomb (medium capacity) 22,000 LB (10,000 kilogrammes earthquake bomb) raised on a turned wooden stand 17cm x 7cm. The Grand Slam was the second bomb Wallis designed after the success of the bouncing bomb. The bomb was even larger than the Tallboy and there was still no aircraft capable of lifting it to its optimal altitude. Like the Tallboy it could be dropped from a lower height and would enter the earth at near supersonic speed, penetrating to a depth of up to 20m before exploding. The Grand Slam was also used on strategic German targets such as V-2 rocket launch sites, the V-3 supergun bunker, submarine pens and the battleship Tirpitz, as well as large civil constructions such as viaducts and bridges. £400-600

Museum reference 1992/0766/M

- 155 A black and white photograph of the grave of Wing Commander Guy Penrose Gibson VC DSO DFC, contained in a cream and red Bakelite table frame 15cm x 15cm x 5cm, the grave is situated in the Roman Catholic Cemetery at Steenberg-en-Kruisland, Netherlands. The photograph is visible in photos of Sir Barnes Wallis' office on top of a bookcase. A colour photo of the pair of graves of Gibson and his navigator, Squadron Leader Jim Warwick DFC, was found in the frame and is also included. Gibson and Warwick died on 19th September 1944 when their Mosquito aircraft crashed in Holland. £500-700

Museum reference 799Z/0C16/C

Sir Barres Wallis Post War and Supersonic (1946-1979)

1946–1979: After the war, Wallis continued working as an engineer and researcher, focusing on advanced aeronautical concepts and supersonic flight. He remained involved with Vickers and later its successor companies, proposing ideas such as swing-wing aircraft and other high-speed aviation designs. Wallis received several honours for his contributions to engineering and wartime innovation, and he continued advising on aerospace technology until his death in 1979.

- 200 11 vols. A series of Oliver and Boyd Ltd University Mathematical Texts. Edinburgh and London: Oliver and Boyd. To include :- COULSON, C. A. Waves A Mathematical Account of The Common Types of Wave Motion 1944, 156pp. Third Edition. GILLESPIE R. P. Integration 1945. 122pp. Third Edition. McCREA, William H. Analytical Geometry of Three Dimensions 1945. 144pp. Second Impression. AITKIN A. C. Statistical Mathematics 1945. 153pp. Fourth Edition. HYSLOP J. M. Infinite Series 1945. 118pp. Second Edition. PHILLIPS E. G. Functions of a Complex Variable with Applications 1946. Fourth Edition. RUTHERFORD, D. E. Vector Methods Applied to Differential Geometry, Mechanics and Potential Theory 1946. 135pp. Fourth Edition. TURNBULL H. W. Theory of Equations 1946. 166pp. Third Edition. INCE, E. L. Integration of Ordinary Differential Equations 1946. 146pp. Fourth Edition. AITKIN, A. C. Determinants and Matrices 1946. 143pp. Fourth Edition. SPAIN, Barry. Tensor Calculus 1953. 125pp. All 12mo, with original dust covers, most faded, some tears in places, blue cloth with gilt lettered spines. £100-150

Museum references - 1992/0392/G/E/4 X003-0689, 1992/0392/G/A/4 X003-0685, 1992/0392/G/Y/1 X003-0602, 1992/0392/G/G/4 X003-0691, 1992/0392/G/C/4 X003-0687, 1992/0392/G/J/1 X003-0597, 1992/0392/G/U/1 X003-0599, 1992/0392/G/V/1 X003-0600, 1992/0392/G/B/4 X003-0686, 1992/0392/G/H/1 X003-0611, 1992/0392/G/Z1 X003-0603.

- 201 Seven volumes of 1940's Royal United Service Institution Journals, to include November '42, August '44, May '45, May '46, August '46, (written to front cover Tizard's address. initialled B.N.W), May '47, August '47 £50-75

Museum references 1992/0392/G/Li/2 X003-0654, 1992/-392/G/K/2 X003-0653, 1992/0392/G/J/2 X003-0652, 1992/0392/G/li/2 X003-0651, 1992/0392/G/HiZ X003-0650, 1992/0392/G/Gi/2 X003-0649 and 1992/0392/G/Fi/2 X003-0648

- 202 4 vols. Engineering volumes to include Pippard, A.J.S. The Experimental Study of Structures 1947, 8vo, 114pp. blue cloth, white lettering with dust cover, marked B.N. Wallis From the author 1947 to endpaper. Hunsaker Engineering Applications of Fluid Mechanics 1947, 8vo, 494pp. green cloth, gilt lettering, initialled B.N.W. to endpaper. Churchill Modern Operation of Mathematics in Engineering 1944, 8vo, 306pp. black cloth, gilt lettering, signed B.N. Wallis to endpaper and Fairhurst Arch Design Simplified 1945, 8vo, 61pp blue cloth, gilt lettering, initialled B.N.W 1946 to endpaper £80-120

Museum references 1992/0392/G/J/4 X003-0721, 1992/0386/G/V/T X003-0518, 1992/0392/G/A/1 X003-0579, 1992/0386/G/S/T X003-0531*

- 203 MITRA S. K. The Upper Atmosphere, Royal Asiatic Society of Bengal Calcutta 1948, endpaper signed B.N. Wallis, 8vo, 616pp. Original blue cloth gilt and black lettering, some minor rubbing to edges of corners and spine. 4 Wallis bookmarks offering thoughts and corrections £200-300

Museum reference 1992/0386/G/U/M X003-0547

- 204 A collection of 3 binders of Restricted Information including Ministry of Aircraft Production Design Requirements for Aeroplanes in 2 binders Air Publication 970, dated November 1946, Vol 1 with pastedown taped in copy letter dated 1st. November 1946, both volumes with taped in Note to Readers and 1 binder Ministry of Technology Technical Procedural Requirements of Service Aircraft and Their Equipment dated March 1949 £80-120

Some light rusting to chromed outer ring.

Museum references 1992/0392/G/J/T X003-0785, 1992/0392/G/K/T X003-0786, 1992/0392/G/C/T X003-0797

- 205 A Rototherm Thermometer with black dial marked Tungum Sales Co. Ltd. Fahrenheit British Patent No. 378314, contained in a red Bakelite case 8.5cm x 8.5cm. £100-150

Museum reference 1992/0765/I

- 206 CONWAY H.D., Aircraft Strength and Materials, London: Chapman and Hall 1947, 8vo, 256pp., Original blue cloth with gilt lettered spine, minor rubbing to corners and edges of spine, Vickers-Armstrongs stamped to title page within a page of handwritten formulae £100-150

Museum reference 1992/0386/G/4T/M X003-0546

- 207 A collection of 7 post-war pamphlets and a document including:- Some Ballistic Contributions to Aerodynamics (initialled B.N.W. to paper cover) 1947, Scientific Man-Power 1946, Report on The Needs of Research in Fundamental Science After the War 1945, 61pp., signed B.N. Wallis to endpaper, The Quarterly Journal of Mechanics and Applied Mathematics Vol II Part 1 March 1949, initialled B.N.W. to paper cover, The Institution of Electrical Engineers initialled B.N.W. to paper cover, Smith Maxwell and O'Farrell M, Aviation fuel, 1954 initialled B.N.W. to paper cover, together with a typed document "Post-War Aviation" (undated with maps) £60-80

Museum references X003-0870, X003-0840, X003-0843, 1992/0386/G/L/M X003-0540, X003-0891, X003-0819, X003-0869

- 208 A 1950's oak framed "Table III - Table of the Standard Atmosphere Below 100,000 ft", 36cm h x 43cm w £100-150

Museum reference X001-2567

- 209 BALY, E. C. C. Spectroscopy, Text-Books of Physical Chemistry, Volumes I, II and III. London: Longmans, Green and Co 1924 (vol I) marked purchased secondhand 1.3.48, 1927 (vol II) marked received 5.4.48, 1927 (vol III) marked purchased second hand 1.3.48. Vol I 8vo, 298pp, vol II 8vo, 398pp and vol III 8vo, 532pp. All in original red cloth, black lettered spine. Rubbing to corners and edges of spines. £70-90

Museum references 1992/0392/G/Q/4 535.3 X003-0700, 535.3 X003-0583 and 1992/0392/G/R/4 535.3 X003-0701

- 210 PYE. D.R., The Internal Combustion Engine Volume I, London: Oxford University Press Humphrey Milford 1930 (1946 reprint), Lg. 8vo, 288pp. Original blue cloth, gilt lettered spine. Fading to spine and front cover, minor rubbing to corners and edges of spine. with D.A.R.D. Library label stamp dated 23 January 1970 and Vickers-Armstrongs Ltd stamp to title page £30-40

Museum reference 1992/0386/G/H/T X003-0508

- 211 Lieber, Lillian R. The Einstein Theory of Relativity, Dobson London 1949, hardback with unclipped dustcover, 8vo, 324pp. blue cloth, gilt lettering. Vickers-Armstrongs Library stamp to title and back pages £40-60

Museum Reference 1992/0392/G/G/1 X003-0585*

- 212 Pifco, a Pifco signalling torch £50-75

There is a dent to the metal body and some acid corrosion to the interior

- 213 BONNEY, E. Arthur. Engineering Supersonic Aerodynamics London: Magraw Hill 1950, 8vo, 264pp., bound in contemporary blue cloth, gilt lettering. First Edition. Signed B.N. Wallis to endpaper along with pencil formula and pencilled notes to page 140. £80-120

Museum reference 4/1192/2392/Q/B1/4 X003-0708

- 214 Three NASA documents, the first marked Secret No.2 of 5 Copies, dated August 27th 1959 with cover letter to Colonel Romig concerning transmission of three copies of attached data, regarding the test of the Vickers Swallow configuration in The NASA Langley 16ft transonic wind tunnel, dated August 27, 1959, 4to, together with another report NASA TN D-3276 (not secret) "Effect of Geometric Modifications on the Maximum Lift Drag Ratios of Slender Wing-body Configurations at Hypersonic Speeds", 4to, 59pp., and NASA TN D-6010 "Dose Response Functions in the Atmosphere Due to Incident High-Energy Protons With Application to Solar Proton Events, Washington D.C. 1970 4to, 31pp. £100-150

Museum references X003-0808, X003-1132

- 215 7 vols. Engineering and conversion table volumes to include Engineering Tables and Data 32pp. (small booklet pencilled B.N.W to cover). NEL Steam Tables 1964, Edinburgh: Her Majesty's Stationery Office 1964, 4to, 146pp. The endpaper signed B.N. Wallis with taped in note paper pencilled formulae and taped in printed correction slip, also with loose printed supplement and taped in printed conversion Table 8 to the back. Conversion Tables And Technical Data 1962 by Bristol Siddeley 12mo, 128pp. (dedication inside "With best wishes from R illegible?"). A Pocket Book of Tables by Shell (dedication inside To B.N.W. from P.L.T.) 1956 12mo, 255pp. Rolls Royce Conversion tables circa 1950 12mo, 97pp. A booklet Direct & Inverse Log-Log Differential scales, signed to cover B.N. Wallis and A Selection of Tables for use in Calculations of Compressible Airflow 1952, 4to, 143pp. £40-60

Museum references X003-1152, 1992/0392/G/M/T X003-0791, X003-1154, X003-1150, X003-1153, X003-0879, 1992/0392/G/N/1 X003-0592

- 216 A yellow painted wooden model of the Wild Goose, raised on a wooden base with metal plaque stamped "1949-1954 Wild Goose, Wing-Controlled Aerodyne, 1/16 Scale Model Trials Aircraft" 15cm h x 47cm w x 35cm d.

Wild Goose was a late forties research project into tailless variable-sweep aircraft using a unmanned aerial vehicle (UAV). It was developed to explore the advantages of variable-geometry or swing-wing aircraft and eventually evolved into the Swallow. £300-400

This model is generally in good condition.

Museum reference 1992/0763/M

- 217 A yellow painted wooden model of the Vickers Swallow, raised on a wooden base with engraved metal plaque stamped "1954-1958 Swallow 1/16 Scale Model of Trials Aircraft" 14cm h x 65cm w x 30cm d.

The Vickers Swallow was the evolution from the Wild Goose toward creating a supersonic aircraft £200-300

One of the wing tips is broken but present though there is a small piece of wood missing (3mm) where it connects with the wing. There is craquelure throughout the paintwork.

Museum reference X001-2511

- 218 A white wooden 1/27th scale demonstration model of the Type 002 Vickers Swallow supersonic wing-controlled aerodyne, with moveable swing wings, together with a wooden transport case, 6cm high x 108cm wide at full spread 43cm long, when closed 39cm x 93cm long £800-1200
- Museum reference 1992/0720/M*
- 219 FARRINGTON G. H. Fundamentals of Automatic Control. London: Chapman and Hall 1951, 8vo, 285pp., signed B.N. Wallis Aug. 1951 to endpaper, complete with dust cover £40-60
- Museum reference 1992/03864/G/BVT X003-0522*
- 220 OSTLER George. The Little Oxford Dictionary, Third Edition Clarendon Press, Oxford 1951, 12mo, 637pp. Original blue cloth with gilt lettered spine, minor rubbing to corners and edges of spine, signed B.N. Wallis September 1952 to endpaper £50-75
- Museum reference X003-1149*
- 221 A Faber-Castell Darmstadt 1/54 slide rule circa 1952, complete with fitted leather case, hand painted initials B.N.W to case £300-400
- The rule has some minor scratches to the celluloid. Both rule and case are otherwise generally in good condition.*
- Museum reference 1992/0760/I*
- 222 Stuart Surridge, a half section of cricket ball, the interior marked Stuart Surridge 7cm £60-80
- Museum reference X001-2560*
- 223 An aluminium cricket ball & bat gauge by Surridge of London, Sir Barnes Wallis was a very keen cricketer £100-150
- Museum Reference X001-2559*
- 224 KUCHEMANN and WEBER, Aerodynamics of Propulsion. London: McGraw-Hill 1953, 8vo, 340pp, cream cloth, gilt lettering, initialled B.N.W to endpapers £30-50
- Museum reference 1992/0392/G/V/5 X003-0745*
- 225 WOODWARD, David, The Tirpitz. London: William Kimber. 8vo, 223pp. Original blue cloth with gilt lettered spine. Fading to spine and cover, minor rubbing to corners and edges of spine. Second edition 1953. Together with an envelope addressed to Dr Barnes with pencil notes to the reverse, a loose slip of paper with typed notes and a cut out section of the books dust cover, signed B.N. Wallis to half title page £150-200
- Museum reference 1992/0392/G/R/6 X003-0769*
- 226 Barnes Wallis' personal copy of "The Dam Busters" 1955 film, cased in three and a half reels of 35mm film, mounted on Tuscan Reels in original Pathe plastic film cases £500-700
- The film appears in excellent order.*
- Museum reference X001- 3206*
- 227 Barnes Wallis' personal copy of "The Dam Busters" 1955 film lobby poster in British half sheet format (22 inches x 27 inches), on blue card depicting Richard Todd as Wing Commander Guy Gibson VC DSO DFC with red Dam Buster title £200-300
- Stored rolled, there are two tears to each side, minor tears and creasing around edges.*
- The poster measures 22" x 27" (56cm x 69cm)*
- 228 Barnes Wallis' personal copy of "The Dam Busters" film's cinema promotional brochure in folio format. In full colour with cover of Richard Todd as Wing Commander Guy Gibson VC DSO DFC. £100-200
- 229 Four H.M.V. Shellac records of "The Dam Busters" March, B10877 matrix OEA-18296-3A, all with different sleeves, one with pencil "I'll be at the Bus stop at four", another with pen "E Wallis Dam Busters" £70-90
- 230 A table cannon with 19cm gilt barrel, raised on hardwood carriage 6.5cm h x 13cm w x 7cm d. £100-150
- Museum reference 1992/0770/M*

- 231 A Union Jack desk flag on gold flagpole with wooden base 27.5cm h £70-90
Museum reference X002-9477
- 232 2 vols. SCOTT J. D., Vickers A History, London: Weidenfeld and Nicholson 1963, 8vo, 416pp., with dust cover and "homemade" paper dust cover pencil written Vickers, signed B.N. Wallis to endpaper, together with GARDNER Charles, Fifty Years of Brooklands 1956, with dust cover, London: Heinemann 1956, 8vo, 160pp., signed B.N. Wallis to endpaper £50-75

Museum references 1992/0392/G/K/6 X003-0761, 1992/0392/G/Y/6 X003-0784
- 233 LEASOR. James, The Millionth Chance, The Story of The R.101, London: Hamilton 1957, 8vo. 176pp. Original blue cloth cover, gilt lettering, fading to spine and cover, minor rubbing to corners and edges of spine. With dedication to endpaper "To Dr B.N. Wallis with my sincere thanks for your help and advice James Leasor 31.7.57". On the reverse of a Motorists Magazine envelope Sir Wallis has scribbled his amendments and notes for the book £50-100

Museum reference 1992/0392/G/J/3 X003-0664
- 234 Three Company Directories to include Vickers 1940, 77pp., Vickers Group Directory 1957 and British Aircraft Corporation Directory circa 1960. £80-120

Museum references X003-1151, X003-1122, 1992/0392/G1/A1/3 X003-0681
- 235 ETKIN. Bernard, Dynamics of Flights Stability and Control. London: Chapman and Hall 1959, 8vo, 519pp, bound in blue cloth, black lettering. Endpaper initialled B.N.W. 1960 £80-120

Museum reference 1992/0392/4/G/Fi/4 X003-0701
- 236 A 1959 painted plywood Christmas card, the front with painted panel, decorated a church and The Swallow, the interior marked "Seasonal Greetings to Dr B.N. Wallis from the Workshop Staff Dec: 1959, R. & D. Workshop" and hand signed by them, 30cm x 22cm £100-150

Museum reference X001-2570
- 237 A 1960 painted plywood and applied wood 3 dimensional Christmas card decorated The Brooklands Club House, interior marked "Best wishes to Dr Barnes Wallis for a Happy Christmas and Prosperous New Year 1960, from Workshop Personnel" and hand signed by them 20.5cm x 25cm £100-150

Section missing to bottom right hand side of the building Museum reference X001-2568
- 238 A 1960's slide rule by Graphoplex Brevete S.G.D.G, the reverse stamped SVENSKA DIAMANTBERGBORRNINGARS AB, 15cm x 3cm, contained in a red leather case, a pair of steel drafting compasses 11cm and a The Aristo Studio slide rule instruction manual (missing front page, folded and with light staining) £60-80

Museum reference X002-7600
- 239 A 1961 painted plywood and applied wood 3 dimensional Christmas card, showing the interior of Barnes Wallis office - draughtsman's table, library table, various books and paintings 23cm x 28cm and marked "1961, A Merry Christmas, A Happy New Year, In This Our Wish We Are Sincere, to Dr Barnes Wallis, Long life And Happiness, From The Workshop Staff" and hand signed by them 23cm x 28cm £100-150

Section of wood missing to the back of the desk and two sections of beading to the edge of the frame. Museum reference X001-2568
- 240 A 1962 painted plywood and applied wood 3 dimensional Christmas card, The Chapel of Christ's Hospital Horsham, interior marked "A Merry Xmas and Happy New Year to Dr Barnes Wallis 1962, R & D Staff" and hand signed by them 28cm x 23cm £100-150

Museum reference X001-2570

- 241 A 1963 painted plywood and applied wood 3 dimensional Christmas card decorated White Hill House Effingham, the interior marked "1963 Wishing you a Bright and Merry Christmas and A Happy New Year, from Personnel of R & D 1963" and hand signed by them 19cm x 23cm £100-150

The leather hinges to the back are damaged Museum reference X001-2570

- 242 An undated Christmas card, the front with coloured print after Ian Gilchrist of The Yacht Medici print "Spinnakers Full", the reverse marked "With all good wishes to you and Mrs Wallis for a Very Happy Xmas and New Year, from all at R & D" and hand signed by them 22cm x 17cm £70-90

*There is a tear to the back
Museum reference X001-2570*

- 243 A 1960's blue leather bound folio with gilt Christ's Hospital armorial to cover, containing unused blotting paper, 35cm h x 25cm w. Sir Barnes Wallis was a pupil at Christ's Hospital from 1900-1904 and later a Governor and Treasurer. £80-120

Museum reference X002-9981

- 244 A collection of 1960's Bristol Siddeley internal and restricted documents related to reviews of the Hawker Siddeley, documents on the supersonic Orpheus jet propulsion engine, the turbo ramjet project investigation etc, some initialled B.N.W. £100-150

Museum references X0003-0896, X003-1141, X003-0895, X003-1118

- 245 Three volumes of Sir Barnes Wallis' patents from 1917-1963, text and fold out schematics, 4to, bound in three-quarter red morocco and cloth, the spines with gilt lettering "PATENT SPECIFICATIONS VOL 1, 2 and 3". Pencil dedication to endpaper in volume 1 "B.N.W A memento of an American adventure Oct. 1948. Harry Mushlian". Wallis' bookmarks throughout vol. 1 and 3. £400-600

Museum references 1992/0386/G/T/B X003-0576, 1992/0386/G/U/B X003-0577, 1992/0386/G/V/B X003-0578

- 246 A collection of late 1960's/early 70's data sheets on aerodynamics, aeronautics and transonics in several binders (11) £40-60

Museum references 1992/0392/Bi/T X003-0814, 1992/0392/G/W/T X003-0609, 1992/0392/G/X/T X003-0610, 1992/0392/G/2K X003-0811, 1992/0392/G/Y/T X003/0812, 1992/0392/G/Ai/T X003-0813, 1992/0392/G/1/T X003-0804, 1992/0392/G/V/4 X003-0788, 1992/0392/G/U/T X003-0787, 1992/0392/G/Di/T X003-0805, 1992/0392/G/Ci/T X003-0806

- 247 5 vols. Ship Buildings and Ships 1947 8vo, 497pp. Signed B.N. Wallis to endpapers. VIVIAN E. Charles, a History of Aeronautics 1921, 8vo, 521pp., signed B.N. Wallis to endpapers (likely purchased after war). PAWSEY and BRACEWELL Radio Astronomy 1955, 8vo, 361pp., initialled B.N.W to endpaper. EAGLESFIELD Charles, Laser Light 1967 (from The BAC Library), 12mo, 192pp. ALLEN, Howard, G., Analysis and Design of Structural Sandwich Panels 1969, 12mo, 280pp., signed B.N. Wallis to title page and front cover £100-150

*Museum references 1992/0392/G/Y/4 X003-0711,
1992/0386/G/Ai/M X003-0552, 1992/0386/G/F/Mid X003-0526, 1992/0386/G/C/Mid X003-0534,
1992/0392/G/C/1 X003-0581,*

- 248 A large quantity of post-war pamphlets and booklets, mainly civilian subjects and interests of Sir Barnes Wallis, pertaining to a variety of subjects from The Royal Society including engineering and economic process, reports on secondary education, annual reports, engineering and youth etc. Several initialled B.N.W or signed B.N. Wallis, one The Engineer in Society with written bookmark "See especially "Containerization" on p.7 & top of p.8 B.N.W" £80-120

- 249 BLUNDELL, H.M., They Flew From Waddington! 463-467 Lancaster Squadrons Royal Australian Air Force, Sydney: W Homer 1975. Ltd Ed no. 445, 8v0, 67pp, a hardback volume commemorating 30 years of VE Day, pastedown and endpaper with signatures and notes of thanks to Sir Wallis from five members of 463-467 Squadron to include John Cole, Art Whitmarsh, John Stokes DFC, Nobby Blundell, John Niedwick and containing a letter from an address in Geneva within £150-200

The letter reads "By the Conjuror! What fun we had dearest Barnes. I am truly glad that you are still on the track of original ideas but sorry indeed that you are having such a hard and long haul to get a rectangular wingless baby (or monster) into the air!

How I wish I were able to pay you a flying visit some day. Who knows, I might be able to do so when my fiscal exile is over - and am still of this world. Of course, I am only at half cock being "dead from the neck up!"

Let me say again before I end this letter what immense pleasure I have derived from your letter written in that unique handwriting.

Do please give my love to Molly and believe me, my dearest Barnes, your always devotedly, affectionately, respectfully and ever so gratefully, Leo" Leo Frederic Baron D'Erlanger was an English merchant banker and investor in military aircraft and civil aviation.

Museum reference 1992/0392/G/M/1 X003-0616

- 250 4 vols. PIERCY N. A. V. Aerodynamics, London: English Universities Press, 8vo, 536pp. Second Edition 1947, signed B.N, Wallis to endpaper. ROARK Raymond J., Formulas For Stress and Strain, London: McGraw Hill 1954, 8vo, 432pp., signed B.N. Wallis to endpaper. BRAGG S. L. Rocket Engines, London: George Newnes Ltd. 1962, 8vo, 158pp. Signed B.N. Wallis 1977 to end paper and PALMGREN Arvid, Ball and Roller Bearing Engineering, USA: Burbank 1946, 4to, 270pp., signed B.N. Wallis Feb '48 to endpaper £60-80

Museum references - 1992/392/G/P/I X003-0594, 1992/0386/G/D/Mid X003-0544, X003-0513, 1992/0392/G/G/3 X003-0661

- 251 2 vols. FERRI, Antonio, Elements of Aerodynamics of Supersonic Flows, New York: Macmillan 1949, 8vo, 433 pp, bound in contemporary blue cloth, silver lettering, fold out chart within an envelope on back board, Vickers-Armstrongs stamp to title and Barnes Wallis handwritten note "received 14.vi.49" to title page. POPE, Alan. Aerodynamics of Supersonic Flight an Introduction, London: Pitman Publishing Corp. 1950, 8vo, 184pp, bound in blue and gilt cloth, (spine in poor condition), Vickers-Armstrongs stamp to title page, together with a facsimile of a German article on wing design dated 1957 £50-70

Museum references - 1992/0386/G/F/B X003-0561, 1992/0392/G/D/1 X003-0582*

- 252 17 vols. A collection of 1950's scientific reference books and others, some with Vickers-Armstrongs library stamp (none initialled or signed) £50-70
- 253 12 volumes of The Biographical Memoirs of The Royal Society to include the years - 1955, 56, 57, 60, 66, 70, 71, 72, 73, 74, 75, 76, 77, 78 £40-60
- 254 HIGHAM Robin, The British Rigid Airship 1908-1931, London: Foulis 1961, 8vo, 426 pp. Original blue cloth cover, silver lettering, fading to spine and cover, rubbing to corners and edges of spine, with fold out map to back board, appears to be a copy sent to Wallis for proof, Wallis' notes and corrections throughout on the text and on notepaper. Long note taped on page 157 (Chapter titled Impact of Jutland and L33) of Wallis' actions around this time, index has pencil note informing which Airships he worked on with H.B. Pratt, also together with a newspaper cutting "Life in the raw on the R100 airship station" by Lady Barnes Wallis £200-300

Museum reference 1992/0392/G/A/5 X003-0725

255 WRIGHT BAKER, H. *Inchley's Theory of Heat Engines*, London: Longman, 8vo, 455pp. New Impression 1963, bound in contemporary purple cloth, silver lettering, signed in pencil B.N. Wallis to endpaper £80-120

Museum reference 1992/0392/G/X/5 X003-0755

256 **Alfred Egerton Cooper R.B.A. (British, 1883-1974), *Half Length Portrait of Barnes Wallis wearing the C.B.E. and DSc robes of the University of London*, oil on canvas, signed and dated 1964, 60cm x 50cm, within a painted composition frame. ** Artist's Re-sale Rights may be payable on this lot Provenance: Sir Barnes Wallis thence by descent. Note: this work has been on loan with the Royal Air Force Museum for over 28 years. £300-500

Museum reference X001-2026

257 8 volumes of *The Journal of Royal Naval Engineering*, to include editions December 1965, June 1966, Dec. 1966, Dec. 1967, Dec. 1968, June 1969, Dec. 1969, June 1971, 6 initialled in pencil BNW £50-70

X003-0867, 1992/0392/G/Z/2 X003-0662, 1992/0392/G/E1/2 X003-0647, 1992/0392/G/D1/2 X003-0645, 1992/0392/G/C1/2 X003-0646, 1992/0392/G/B1/2 X003-0644, 1992/0392/G/A1/2 X003-0643, X003-0829

258 3 pamphlets of *The Military Balance* by the Institute for Strategic Studies 1965-66, 1966-67 signed B.N. Wallis to cover and 1967-68 initialled B.N.W. to cover £70-90

Museum references X003-0878, X003-0877, X003-0876

259 C. W. Glover (active 1950-1968). *Half Length Portrait of Sir Barnes Wallis wearing a navy jacket, white shirt and Christ's Hospital School tie*, oil on canvas, signed and dated 1968, 66cm x 56cm, within a gilt composition frame. Provenance: Sir Barnes Wallis thence by descent. Note: Sir Barnes Wallis was educated at Christ's Hospital between 1900 and 1904, and he retained a close and enduring connection with the school throughout his life. His affection for the institution was demonstrated in a remarkable act of generosity: he donated the 10,000 pound award he received from the Royal Commission on Awards to Inventors in recognition of his wartime work. Wallis directed the entire sum to Christ's Hospital to assist the children of those who had served in the Royal Air Force. In partnership with the RAF Benevolent Fund, which matched his gift, a dedicated trust was established to administer the award. Since its foundation in 1952, the Trust has supported more than 150 pupils. Each beneficiary has worn the distinctive Founder's badge, specially designed by Wallis himself. This work has been on loan with the Royal Air Force Museum for over 28 years. £150-250

Museum reference X001-2025

260 Sir Barnes Wallis, a Knight Bachelor's second type silver gilt neck badge with Royal Mint Hallmark in fitted red case (Wallis was knighted on December 10th 1968), together with a red cloth bound volume listing Knight Bachelor recipients from 1965-1973, 8vo, 193pp. and a *Guardian Newspaper* from June 8th 1968 announcing the Birthday Honours list. £500-600

This badge has some minor scratches to the reverse and the hallmarks are slightly rubbed. It is otherwise in good condition.

Museum reference X001-2423, 1992/0392/G/Y/Z X003-0641

261 **David Poole A.R.C.A. (b.1931) - *Portrait of Barnes Wallis*, pencil with charcoal, signed and dated 1968, 46cm x 33cm, within a painted wood frame. ** Artist's Re-sale Rights may be payable on this lot. Provenance: Sir Barnes Wallis thence by descent. £150-250

262 Lesley R. - *The achievements of Barnes Wallis*, watercolour with gouache, signed and dated 1968, 43cm h x 55cm w. Provenance: Sir Barnes Wallis thence by descent. Note: this work can be seen in several publicity photographs of Barnes Wallis including Roger George Clark's portrait of Sir Barnes Wallis at his desk in the collection at the National Portrait Gallery. £100-200

Museum reference X001-2032 PC032105

- 263 A selection of aircraft brochures, many with notes handwritten by Wallis to include brochures on Concorde, Vickers Wellington One and Two, Vickers Vanguard, Super VC10, B.A.C 111 etc £100-150
- There are 13 publications included within this lot. Several have handwritten notes within (see additional images).*
- 264 A photograph of the Children of Barnes and Molly Wallis: Barnes, Mary, Elisabeth, Christopher and Molly's sister's children John and Robert McCormick: Provenance: Sir Barnes Wallis thence by descent. 19cm x 27cm £30-50
- 265 Gerald Coulson (1926-2021) "The Sinking of the Tirpitz", 20th century colour print, 23cm h x 28cm w, within a stained wood frame. Provenance: Sir Barnes Wallis thence by descent. £50-80
- Museum reference X001-2040*
- 266 A B Kirkbride Associates for The British Aluminium Company, an Aluminium Alloy BA.24.WP machined and hand finished ashtray with barked edge, the interior monogrammed B.N.W. 11cm x 11cm together with an explanatory slip of paper. £300-400
- Museum reference 1992/0768/C*
- 267 A Simplon Automatic Adjustable Set-Square Dargues Patent, very chipped and brittle £80-120
- Museum reference X002-8204*
- 268 A large collection of 1960's and 70's brochures, scientific volumes and mathematic books (1 brochure with rubbed signature B.N. Wallis) £50-70
- 269 Will Spencer (1921-2002) "Animal Crackers: When we go to England I want to try those Barnes-Wallis adjustable wings!", ink with watercolour, signed with initials and inscribed, 23cm h x 14cm w. Provenance: Sir Barnes Wallis thence by descent. Note: In 1954 Spencer joined the News Chronicle to start the "Animal Crackers" pocket cartoon series. This ran in the News Chronicle until that paper was absorbed by the Daily Mail in October 1960, when it continued in the combined paper. The Daily Mail continued to feature "Animal Crackers" until May 1971, when the newspaper was redesigned as a tabloid and the series was dropped. This work, depicting swallows in flight, alludes to Sir Barnes Wallis's pioneering "Swallow" project of the 1950s. During this period, Wallis advanced a bold variable-geometry concept he termed the "wing-controlled aerodyne", conceived to maximise the efficiency and economy of high-speed flight. His earliest investigations took shape in the "Wild Goose" study, which laid the groundwork for subsequent developments. Wallis later refined these ideas into the "Swallow", a tailless, blended-wing aircraft envisioned as capable of completing return journeys between Europe and Australia in under ten hours - an extraordinary ambition for its time. As the project evolved, the Swallow was increasingly regarded as a potential supersonic successor to the RAF's subsonic Vickers Valiant bomber. Throughout the mid-1950s, various models of the design were tested with promising results, including a six-foot scale model that achieved speeds approaching Mach 2. Despite its technical promise, the programme was curtailed in 1957 when the British government withdrew support from several advanced aeronautical initiatives, bringing Wallis' visionary work on the Swallow to an end. £150-250

- 270 Nine 1970's volumes of Year Book of The Royal Society - 1970, 71, 72, 73, 75, 76, 77, 78, 79, red cloth bound with gilt lettered spines £40-60
- 271 A black document case marked British Aircraft Corporation, with zipped main compartment and zipped compartment to the front 29cm h x 41cm w (Sir Barnes Wallis worked for BAC from 1945 until he retired in 1971) £40-60

Museum reference X002-8206

- 272 7 vols. A collection of books with personal dedications from the authors to Barnes Wallis to include ANDREWS C. F., Vickers Aircraft Since 1908. MORPURGO J. E., The Road to Athens 1967. EULER, Helmut, Als Deutschlands Damme Brachen 1975. SCOTT J.D., Vickers History 1962. BONNER W. A., Dixon, Aircraft From Airship to Jet Propulsion 1908-1948, London: Tapp & Toothill Ltd. 1949 and GARBETT Mike, The Lancaster War 1972 (x2) £80-120
- 274 **David Shepherd C.B.E. (1931-2017) "Winter of '43, Somewhere in England", limited edition colour print, signed in pencil and with blindstamp, published in 1977, 51cm h x 93cm w, within a stained wood and hessian frame. ** Artist's Re-sale Rights may be payable on this lot. Provenance: Sir Barnes Wallis thence by descent. Note: this work has been on loan with the Royal Air Force Museum. In 1977, to "repay his debt" to the Royal Air Force, David Shepherd painted a picture of a Lancaster bomber at dispersal, titling it "Winter of '43 - Somewhere in England". He donated 850 prints, all signed and numbered, of this painting to the Royal Air Force Benevolent Fund, and the prints raised 96,000 pounds for the institution. £100-200

Museum reference FA02782

- 275 A pair of airship calendars from 1977 and 1978 full of diary events from the personal life of Sir Barnes Wallis £100-120
- 276 GLOVER C. W. & Partners, Glover Construction Handbook. 108pp. Original burgundy cloth. The end paper with inscription "Sir Barnes N. Wallis C.B.E. F.R.S. With Compliments. Chas. W. Glover". Ditto publication. EKCO ELECTRONICS LTD. Useful Data. London: D.Harper & Co. Ltd. Black vinyl cover. 38pp, with an Ekco Electronics Ltd, Priory Park, Southend on Sea With Compliments slip, stamp dated 23 DEC 1969. Ditto publication. IOCO Synthetic Resin Products. Formaplex Boards and Tubes Booklet No. 11. Glasgow. Beige card bound product guide. 20pp. IOCO Synthetic Resin Products. Formaplex Cloth Miocarta Gears Booklet No. 13. Glasgow. Beige card bound product guide. 20pp. THOS. FIRTH & SONS, LTD., Steels Specially Resistant to Corrosion. Mexborough: Times Printing Co Ltd. Blue card cover. 73pp. with pencil written inscription to inside page dated 13/5/31. ENGLISH STEEL CORPORATION LTD. A. W. Small Tools, Section No.6, Screwing Apparatus. Catalogue Ref.; S.T.O. 6/1. London & Birm. Silk & Terry Ltd., Brown paper covers, 59pp. ENGLISH STEEL CORPORATION LTD. Tool Steels. Catalogue Ref. S.S. 13/1 Eng. Printed in England. 103pp. Black card covers with white lettered spine. WERNER, Fritz, (translated by Hans Dominik) The Machine Tool and Small Tool Industry, An Outline of Its Development and Modern Organisation. Berlin: Organisation Verlagsgesellschaft M.B.H. (S.Hirzel) 1931. 74pp. Printed colour cover on beige cloth. With loose page inviting acknowledgment of receipt of the book. COOKE TROUGHTON & SIMMS LTD. Drawing Office Equipment. Publication No. 860. An illustrated catalogue of drawing instruments and equipment. ii, 172pp. Green card covers. Electron, Magnesium Alloys. Birmingham: The Kynoch Press. 1937. Original black cloth with gilt lettered spine. 127pp. The endpaper with attached slip "Presented to B. N. Wallis Esq. with the compliments of F. A. Hughes & Co. Ltd". £50-70

Museum references - 1992/0392/G/D1/4 X003-0709, 1992/0392/G/Z/3 X003-0680, 1992/0392/G/W/3 X003-0672, 1992/0392/G/Q/3 X003-0671, X003-0817, X003-0857, X003-0853, X003-0851, X003-0854, 1992/0392/G/U/6 X003-0773, 1992/0392/G/V/3 X003-0677

277 After C E Turner, a copper engraving, A "Wellington" Bomber sets out at dusk for a distant "Target Area" 19cm h x 26cm w, in a stained oak frame £60-80

Museum reference X001-2039

278 A collection of Barnes Wallis' paper stationery to include writing pads, sketch pads, graft pads, tracing paper, a piece of blotting paper with stains and signed B.N. Wallis, together with a couple of pages of formula related to commercial aircraft £100-150

279 The contents of Sir Barnes Wallis' desk including a collection of paper clips, pens, rubber bands and a clicker etc £50-70

280 **Attributed to Martin Aitchison (1919-2016), Comic Strip depicting the Achievements of Sir Barnes Wallis, pen with ink, in several sections, 12cm h x 43cm w (x3), 12cm x 30cm and 12cm x 12.5cm. ** Artist's Re-sale Rights may be payable on this lot. Provenance: Sir Barnes Wallis thence by descent. £80-120

281 ROGET, Peter, Everyman's Thesaurus of English Words and Phrases, J.M. Dent & Sons 1952, 12mo, 572pp., bound in blue cloth, gilt lettering. Signed B.N. Wallis Sept 1952 to endpaper £50-70

Museum reference 1992/0392/G/B/3 X003-0862

282 2 vols. CHESTERTON, G.K. St Francis of Assisi, Hodder & Stoughton 1933, 12mo, 185pp., bound in blue cloth, black lettering, signed M.F. Wallis and KIPLING, Rudyard, Rudyard Kipling's Verse Inclusive Edition 1885-1918, London: Hodder & Stoughton Ltd, 8vo, 787pp., bound in blue cloth, gilt lettering, signed M.F. Wallis (Molly Wallis, Barnes' wife) £50-70

Museum references 1992/0392/G/M/3 X003-0668, 1992/0392/G/Q/5 X003-0744

283 After Keith Broomfield - "Vickers Wellington III of No.150 Squadron, Royal Air Force Bomber Command, Europe 1942", 20th century colour print, 30cm x 50cm, within a stained wood frame. Provenance: Sir Barnes Wallis thence by descent. Note: Led by Vickers-Armstrongs' chief designer Rex Pierson, a key feature of the Wellington was its geodetic airframe fuselage structure, which was principally designed by Barnes Wallis. £50-80

284 A large quantity of mainly 1960's/1970's modern novels and biographies from the Wallis library, none are signed or initialled by Sir Wallis. The Life of Nelson in 2 vols with dedication "To my dearest client and most patient Master H Mushlian" 6th October 1964' £50-70

285 A 1950's black and white photograph of a remote Vickers Swallow swing-wing aircraft during testing 29cm x 37cm £40-60

This lot is generally in good condition.

Museum reference: 1992/0718/C

286 An early 20th Century magic lantern, converted to electricity, contained in an aluminium and painted metal case with brass lens housing, the cover marked RD No. 230577 6in, raised on a wooden adjustable stand 39cm h x 51cm w x 19.5cm d, together with a Dallmeyer 12" F/7-7 Dallon Tele-Anastigmat 200766 lens with Air Ministry marking to the interior, complete with wooden carrying case 42.5cm h x 59cm w x 22cm d. Most likely used by Sir Wallis for his lecturing. £80-120

Museum reference 14A/807

- 287 A collection of Barnes Wallis' lecture slides mainly about airships in fitted numbered wooden boxes (88 slides, in two boxes)
Black Box, Graphs (crossed out in red), 27 slides (4 cracked)
Staring at the two-holes end:
Section A: 11 slides (1 cracked), two diagrams of airships, two tables and a list of WW2 shipping data, a table of rocket propellant performance, two photos of girders, three slides of text, equations and table
Section B: 10 slides (2 cracked), 7 diagrams relating to the performance of airships, three photos of the construction of R100
Section C: 4 slides, 2 diagrams relating to airships, 1 photo ditto, 1 world map showing trade
Section D: 8 slides (1 cracked), 1 diagram and 5 photos of the construction of the R100, 1 diagram and photo of the Graf Zeppelin
Box 1, Current Lecture, 61 slides (slides are not completely in order; 2 cracked slides)
From "Start Here" label:
Section A: 16 slides showing world maps and diagrams of airships for long-distance travel
Section B: 19 slides (1 cracked) showing the early development of long-distance Zeppelins (Germany to America) compared with British dirigibles and the late development of British airships, culminating with the R100
Section C: 18 slides showing the construction of the R100, the development of BOAC routes around the world, the long-distance Vulcan bomber and an image of the swing-wing Swallow
Section D: 8 slides (1 cracked) showing the potential of supersonic travel £200-300

Museum reference X001-2620/001

- 288 A collection of Barnes Wallis' lecture slides mainly about Dam Busters, bombs and targets in fitted numbered wooden boxes (81 slides in two boxes)
Box W, 40 slides (5 slides cracked), box marked in chalk into four sections
Section A: Four miscellaneous diagrams, one miscellaneous photo, two photos of original, almost spherical bouncing bomb
Section B: Five photos, five drawings and a map relating to the Ruhr dams and the Dam Busters
Section C: 14 photos of 617 Squadron's targets, some destroyed (including Tirpitz upside-down), a photo of a Tallboy bomb and two drawings relating to the Tallboy
Section D: Five photos relating to the Ruhr dams and the bouncing bomb

Box D, Diagrams, 41 slides
Slides 1-26 Aerodynamics
Slides 28-31 Stratospheric chamber
Slides 33-34 Diagram, photo and blueprint of a German dam, possibly Mohne
Slides 36-38 Diagrams of Tallboy effect on Bielefeld viaduct
Slides 40-45 Diagrams for bombing coal mines, oil storage depots, tunnels, railway cutting or embankment
£300-400

The glass on slide 37 has cracked further but the slide itself remains intact.

Museum reference X001-2620/001

289 A collection of Barnes Wallis' lecture slides mainly about Supersonic flight in fitted numbered wooden boxes (93 slides, in 2 boxes)
Box F, 50 slides
Drawings and diagrams relating to Swallow and other jet aircraft and rockets

Box G, Supersonic Flight, 43 slides
Slides 1-6: Swallow
Slides 8-13: Air intake and thrust
Slides 15-19: Aerodynamics, swing-wing
Slides 21-25: Various Graphs and diagrams
Slides 27-31: Stratospheric chamber and wind-tunnel diagrams
Slides 33-38: Aerodynamics at various atmospheres; current and future aircraft
Slides 40-43: Radio telescope design
Slides 45-50: Hyperboloid and other drawings £100-200

Museum reference X001-2620/001

290 A collection of Barnes Wallis' lecture slides mainly about Supersonic flight in fitted numbered wooden boxes (106 slides in 3 boxes)
Box E, Miscellaneous drawings, 49 slides
Slides 1-27: mainly flight, 1940s to 1950s (2 slides cracked)
Slides 21-28: model Swallow and radio control
Slides 29-40: Swallow as real aircraft
Slides 41-42: missile and launch silo
Slides 43-45: supersonic flight drawings
Slides 46-48: projectiles, bombs and torpedoes (possibly slide 48 shows Wallis' hydrodynamic torpedo)
Slide 49: a futuristic jet aircraft(?)

Box I, 46 slides (2 slides broken)
Slides 1-26 Cut-away diagram of stratospheric chamber and photos of its construction
Slides 27-34 Photos of jet aircraft, jet missile?, jet car?
Slides 39-43 Photos of a balloon and a stratospheric balloon
Sides 45-50 Miscellaneous

Small Box P, 11 slides
2 drawings of Swallow, 1 drawing of Concorde, 1 hypersonic aircraft drawing, 1 airship drawing, 1 ellipsoid drawing, 4 miscellaneous drawings, 1 miscellaneous photo £100-200

Museum reference X001-2620/001

- 291 A collection of Barnes Wallis' lecture slides mainly about Radio telescopes and Wallis' Interests in fitted numbered wooden boxes (114 slides, in 3 boxes)
Small Box R, Misc. Formulae, 25 slides
Graphs, tables and photos showing the results of tests on duralumin, aluminium and other metals

Box T, Miscellaneous, 48 slides

Slides 1-6 Microscopic cross-sections of materials.

Slides 7-14 Manufacture of mystery cylinders.

Slides 15-21 Radio telescopes, mainly photos, 1 design.

Slides 22-29 Architecture: photo of the Pantheon, plans of church rooves and domes.

Slides 30-34 Architecture: photos of a bridge, photo of a chiming clock.

Slides 36-42 Miscellaneous.

Slides 44-50 Lines of poetry and sayings.

Box X, Personal (Sir Barnes Wallis), 39 slides

Back group - Five slides of old architecture.

Middle group - 18 slides of ancient/old architecture.

Front group - 10 slides of old/modern architecture and 18th century sailing ships. Three slides of architectural ground plans. Four slides of children's swings, slide, roundabout. Two other slides. £100-200

Museum reference X001-2620/001

- 292 A collection of Barnes Wallis' lecture slides mainly about Seaplanes and other Aircraft in fitted numbered wooden boxes (90 photos, in 2 boxes)

Box N, Graphs, 24 slides

Batch 1 (slides 1-13) - Aeronautical data for aircraft and pilot (slide 1 cracked).

Batch 2 (slides 16-26) - Properties of materials under stress or temperature.

Loose- Many unmounted photos of seaplanes and aircraft 1920's to late 1930's.

Small Box S, Misc. Aircraft, 46 slides

Starting at labelled end:

5 photos of Supermarine S.6 sea plane which set speed record in 1929, 4 photos of civil single-seater aircraft,

7 photos of a WW2 military 2-seater, 4 photos of Hurricanes, 26 photos of aircraft structure £100-200

Museum reference X001-2620/001

293 A collection of Barnes Wallis' lecture slides mainly about Airships and Aircraft in fitted numbered wooden boxes (106 slides, in 3 boxes)

Box H, mainly aircraft, 36 slides

Slides 1-6 Geodetic structure, Aircraft wheel, viaduct architecture, miscellaneous

Slides 8-10 Photos of cracks in materials

Slides 12-17 Photos of aircraft, cutaways of Wellington to show structure

Slides 19-21 Photos, seagull in flight, ballistics, jet engine

Slides 35-43 Photos of prototype jet-propelled bomb?

Slides 45-50 Photos of model aircraft and construction of stratospheric chamber

Small Box O, 22 slides (5 slides cracked)

Starting at piece of paper which says "Start Here"

7 world or regional maps, 1 table about trade, 3 photos of R100 (2 interior, 1 exterior; damaged), 2 tables and 6 photos related to flight testing (normal and hypersonic), 3 diagrams of swing-wing Swallow

Box V, Airships, miscellaneous, 48 slides (1 slide broken)

Slide 1 1919 drawing of Airship for England New Zealand travel

Slide 2 Photo of mystery item (1920s?)

Slides 4-30 Photos of manufacture of airship R100 (one drawing)

Slides 31-36 Photos of R100 in flight

Slides 38-39 Drawings of 1919 airship

Slides 40-42 b/w copies of paintings of 1919 in flight and mooring to ship

Slides 43-45 Photos of cabins slung below airship (1920?)

Slides 46-50 Miscellaneous £100-150

Museum reference X001-2620/001

- 294 A collection of Barnes Wallis' lecture slides mainly about Aircraft and their performance in fitted numbered wooden boxes (95 slides, in 2 boxes)
Box B, 50 slides, 1 cracked
Graphs relating to performance of normal and swing-wing aircraft, including supersonic
- Box U, Misc, 45 slides
Slides 1-18 Medical concentrates on mouth & nose, throat, lungs.
Slides 21-34 Aircraft (one slide cracked) photos of aircraft, range from historic aircraft (1900ish) through WW2 fighters to 1960s commercial jets and Swallow
Slides 34-43 The geodetic structure of the Wellington bomber.
Slides 46-50 Committee slides show the four components of a Management Committee. £100-200

Museum reference X001-2620/001

- 295 A collection of Barnes Wallis' lecture slides mainly about Aircraft, Strategic Maps and Technical Data in fitted numbered wooden boxes (97 slides, in 3 boxes)
Box A, 49 slides (1 cracked)
Graphs mainly relating to aircraft performance, including supersonic. Some relate to WW2 explosives, like the Grand Slam 10 ton bomb
- Box K, 26 slides (warped box; 1 slide cracked)
Slides 1-4 Photos and sketches of Swallow
Slides 6-7 Photos of Jet aircraft
Slides 9-18 Photos of flow patterns
Slide 20 Photo of three-engined flying boat
Slide 22 Photo of German WW2 flying bomb (doodlebug)
Slides 24-29 Unknown photos, possibly radar carried by aircraft
Slides 31-32 Miscellaneous photos
- Box L, Maps and Air Routes, 22 slides (2 slides broken)
Range of Wellington Bomber. range of tactical missiles.
Maps of playing fields, Middle East RAF bases 1929-1956, UN voting groups, non-centrality of New York.
World maps based on various strategic cities, including London. London to Melbourne mail routes, by sea and by air (probably 1930s).
1969 world map: spot the gaps in our defences ... when the carriers are gone. £100-200

Museum reference X001-2620/001

296 A collection of Barnes Wallis' lecture slides mainly about Aircraft and their Performance in fitted numbered wooden boxes (98 slides, in 2 boxes)
Box C, Graphs, 49 slides
Graphs mainly relating to aircraft speed, ceiling, range, including supersonic.

Box J, Illustrations, 49 slides, 1 cracked
Slides 1-26 Photographs of the stratospheric chamber
Slides 27-34 Miscellaneous photos
Slides 35-44 Photos of jet aircraft and rockets
Slides 45-48 Photos of spitfires and flying boats
Slide 49 Newspaper cartoon £100-200

Museum reference X001-2620/001

297 A collection of Barnes Wallis' lecture slides mainly about Aircraft performance and air travel in fitted numbered wooden boxes (96 slides, in 2 boxes)
Box M, 46 slides
Slides 1-31 Text and Tables relating to aircraft performance, conventional and supersonic
Slides 33-38 Text etc for a lecture on the role of research
Slides 40-44 Tables for land, sea and air travel and transport
Slides 47-50 Miscellaneous

Box Q, Formulae, Graphs and Tables, 50 slides (one slide cracked)
Metal alloy testing. Aircraft loading, performance. Paraboloids. Some slides in French. £80-120

Museum reference X001-2620/001

Sir Barnes Wallis Furniture and Office Effects

- 300 A 1930's oak and plywood 3 tier open bookcase 112cm h x 92cm w x 24cm £100-150
Contact marks to the sides
- 301 A 1930's rectangular oak 2 tier tea trolley with sprung and rubber wheels 73cm h x 69cm w x 39cm d £150-200
- 302 A 1930's mahogany 3 section table top book trough, raised on panelled supports 16cm h x 82cm w x 20cm d £150-200
- 303 A pair of 1930's oak open arm chairs, the seats and backs upholstered in brown leather, raised on square supports 84cm h x 61cm w x 63cm d (seat height 48cm) £200-300
Some cracking to the leather in places
- 304 A 1930's oak, Minty style, 3 section bookcase 112cm h x 87cm w x 25cm d £100-150
Scratches and contact marks in places
- 305 A 1930's rectangular mahogany and plywood 2 tier trolley fitted 2 drawers, raised on sprung and rubber wheels 76cm h x 76cm w x 46cm d. £100-150
Museum reference 1992/0389/G
- 306 A 1930's rectangular mahogany and plywood 5 section table top filing tray 41cm h x 51cm w x 27cm d £100-150
- 307 A 1930's rectangular oak drop flap office table with green writing surface, fitted 2 drawers and 3 recesses 77cm h x 168cm w x 52cm d (when folded down) 79cm d (flap open) £300-400
- 308 A 1930's oak and plywood open bookcase fitted 2 fixed shelves 112cm h x 91cm w x 24cm d £100-150
- 309 A 1930's mahogany and plywood filing rack, the centre fitted an aperture flanked by 6 compartments, 41cm h x 138cm w x 27cm d £100-150
- 310 A 1920's light oak library table with brown inset writing surface above 3 long drawers, raised on square supports 77cm h x 182cm w x 106cm d £300-400
*There is a metal label on the inside of one leg marked 730/1131.
The table has some minor scratches and small knocks throughout but is otherwise generally in good condition.*
- 311 A magnifying lamp with rectangular magnifying glass flanked by 2 bulbs marked The Anglepoise PAT in UK and Abroad, raised on a tapered oak 2 tier stand with casters 145cm h x 46cm w x 45cm d £200-300
- 312 A Revo Aermaster, 4 bladed, metal electric oscillating table fan, base marked AERMASTER batch no. F207, with original flex and round pin fused plug 40cm h x 18cm w x 24cm d £100-150
Museum reference 1992/07E9/G
- 313 M Mayers & Sons Ltd., a rectangular metal and grey plastic pierced 2 tier filing tray marked M*Y*E*R*S 44 19cm h x 38cm l x 28cm w £50-70
Museum reference X002/8202
- 314 A grey Simplon draughting table/desk, c.1960s, fitted with a Mavitta Master 360 draughting machine with Admell Fingalite adjustable lamp. The tapered triangular cast-iron base was manufactured by Dargue Brothers at Simplon Works, Halifax, and features a central red Simplon logo, pedals, and rubber footrests. The base supporting a pine table top with attached draughting machine. Together with a revolving steel high chair by ROC Birmingham (photo centre pages) £3000-4000

*A section of the wooden drawing board is broken in the bottom right corner but all pieces appear to be present.
The raise/lower pedals do not seem to be working, but we believe the tilt function is working.
The chair has some small tears to the front of the seat covering.*

- 315 A beech and bristle draughtsman's dusting brush, 31cm w x 7cm h x 1.5cm d £80-120
Museum reference X003-2364
- 316 A rectangular ply and mahogany desk in-tray 5cm x 39cm x 27cm £100-150
This tray has some minor scratches and wear but is generally in good condition.
- 317 A plywood table top reading stand/lectern with metal and Bakelite lamp to the top, with green sponge inset surface above a recess, with original round pin plug 44cm h (67cm h inc light) x 54cm w x 42cm d £150-200
Museum reference 1992/0738/G
A small section of sponge is missing to the top left hand corner of the reading surface. There are scratches and contact marks throughout
- 318 A pair of draughtsman's Spline weights marked Spline Weights Patent 510878, 16 York Road, Kent 5cm h x 15cm w x 3cm d £100-150
- 319 A large 1966 Illumina electric desk globe by Purnell and Sons London, raised on a domed metal base, 56cm h £300-400
- 320 A cylindrical perspex map/plan holder, 62cm l x 15cm d £40-60
- 400 Dr Alexander R. Graham, Bust Portrait of Barnes Wallis, painted resin, 1966, 40cm h x 21cm w x 26cm d .
Provenance: Sir Barnes Wallis thence by descent. Note. Dr Alexander Graham R.M.S., M.B., Ch.B., D.P.H., Barrister-at-Law, served as Medical Officer of Health for Lancaster and later for the Borough of Mitcham. A close friend of Wallis, he was also an accomplished portrait painter and sculptor. Graham took up the study of sculpture later in life at Wimbledon School of Art, exhibiting at the Royal Academy in 1963 and frequently with the Society of Portrait Sculptors. He was elected a member of the Society in 1966 and served as its Honorary Secretary from 1968 until 1980. Following Graham's death in 1986, his widow, Marjorie, presented another cast of the present work to the National Aerospace Library at Farnborough. A photograph of Wallis standing beside the sculpture was likely taken to commemorate its presentation to the Library. £100-200
- 401 **Alfred Egerton Cooper R.B.A. (British, 1883-1974) Portrait of Barnes Wallis sculpting a wood carving of his wife Molly, watercolour, signed with initials, 30cm x 24cm, within a stained wood frame.** Artist's Re-sale Rights may be payable on this lot. Provenance: Sir Barnes Wallis thence by descent. Note: Cooper produced two versions of this tender portrait displaying Wallis' devotion to his wife Molly. The other version painted in oils was sold at Dominic Winter on 17th December 2020, lot no. 331. £150-250
- 402 2 vols. INGE. W.R. Personal Idealism and Mysticism, London: Longman, Green and Co, 1907, 8vo, 186pp, bound in red cloth, gilt lettering, signed B.N.Wallis to end page together with DEANE, Anthony.C. How To Enjoy The Bible, London: Hodder & Stoughton Limited, 12mo, 188pp, bound in blue cloth, black lettering signed B.N.Wallis to end page £50-70
- 403 Marshall of Walton on Thames, a bespoke Harris Tweed Buckingham jacket, with tailors label marked "Bespoke Tailor's Marshall of Walton on Thames Dr B N. Wallis 39 R" £1000-1500
Slight stains in places, there is wear to the centre button hole. Museum reference X008-8814
- 404 A pair of Sir Barnes Wallis circular tortoiseshell effect framed glasses circa 1940/50s, Wallis can be seen wearing these glasses in a promotional photo for "The Dam Busters" 1955 film alongside Michael Redgrave (one lens is loose). (photo centre pages) £800-1200
Museum reference X002-7599