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Cover illustration: Item 69

1. Adams (George) An Essay on Electricity, explaining the Theory and Practice of that useful Science; and the Mode of applying it to medical Purposes. With an Essay on Magnetism. The Second Edition. Corrected and considerably enlarged. At the Logographic Press for the Author, 1785, folding engraved frontispiece showing experiments (tightly bound), engraved title vignette, and 7 folding plates at the end, ownership signatures of Benjamin and Charles (?) Starbuck on the title, 5pp. catalogue of scientific instruments at the end, slightly browned, occasionally more severely, pp. [ii], ii, v-x, 476, [16], 8vo, mottled calf antique, the backstrip ruled in gilt and with maroon and black lettering-pieces, good (Wellcome II, p.13; Mottley pp. 280-81; Wheeler Gift 519b; ESTC T88411)

An Essay on Electricity was first published in 1784 and proved popular, running into five editions before 1800. This enlarged edition contains additional plates. It contains experiments on all aspects of electricity and illustrations of the relevant equipment.

2. Adams (George) Essays on the Microscope; containing a practical Description of the most improved Microscopes; a general History of Insects, their Transformations, peculiar Habits and Oeconomy, an Account of the various Species ... Animalcula; with a concise Catalogue of interesting Objects ... The second edition, with considerable Additions and Improvements by Frederick Kanmacher. *Printed by Dillon and Keating for the Editor, 1798, engraved allegorical frontispiece by J. Hawkesworth after T. S. Duché, lightly offset, 32 double-page engraved plates, plates 13 and 15 cut close at the top just into the ruled border, pp. [xviii], [vi], 724, 8, 4to, contemporary speckled calf, rebacked in a greenish-hued calf, the backstrip panelled with double gilt fillets and an earlier black calf lettering-piece, good (ESTC T88415; Hagen p. 2; Pritzel 18)* 

In 1734 George Adams senior started his own business as a maker of mathematical instruments in Fleet Street, 'near the Castle Tavern', a few doors from Shoe Lane, adopting the sign of Tycho Brahe's Head. The business continued at various addresses in Fleet Street for eighty-three years in all, having been taken over by his son of the same name, the author of this work, in 1772. George Adams junior published a number of illustrated books dealing with the physical sciences, most notably on electricity and the microscope. In this extensive work the history and invention of the microscope is charted, with an emphasis on the improvements, relative advantages of each instrument and the best method for preparing various objects for examination, and is illustrated in the fine plates including some striking views of insects.

Inside the front cover is an early book ownership label of W.H. Reed, Tiverton, and a manuscript note 'Bought at Mr Wotton's Sale Feby 15 1866'.

3. Alingham (William) An Epitome of Geometry containing the principal theorems of Euclid's first, third, fifth, sixth, eleventh and twelfth books, with their uses and applications, digested in a method fit to be read by all such who would, in short time, lay a foundation for the most required parts of the mathematicks. Also Euclid's second book and doctrine of proportion, algebraically demonstrated. To which is annexed, a treatise of measuring superficies and solids ... Of great use to all that would found their mechanick practices on the unerring principles of geometry, More

particularly for all engineers, gunners, marriners, gaugers, surveyors, measurers, artificers, &c. Printed for and Sold by Thomas Shelmerdine ... and by the Author, 1701, Second or third edition (first, as 'Geometry Epitomized', 1695), with numerous woodcut diagrams and illustrations, a few page numbers shaved at head, sporadic worming, mainly marginal but in four gatherings affecting a few letters, one or two ink spots, pp. [xvi], 288, small 8vo, contemporary calf, rebacked with new front free endpaper, traces of a bookplate inside front cover, eighteenth-century ownership inscription at head of title of J. Body, with a note of its purchase in 1757, good (This issue not in ESTC)



The second edition was published by the author in 1700, and while there are two other editions (or issues) bearing the date 1701 recorded in ESTC (each in a single copy only), this one is not among them, despite there being a copy in Wellcome; the sectional titles are dated 1700, without mention of printer.

Alingham (fl. 1694-1710) kept a school in Channel (now Cannon) Row, Westminster (next to the Rummer Tavern, which has a niche in literary history, for it was here in 1676 that the young Matthew Prior was discovered reading Horace by the Earl of Dorset). Alingham also wrote on fortification, maps, and scientific instruments: see Taylor, *Mathematical Practitioners* 482 (Biographies) – this book not listed among Works. All editions are scarce, very few copies being recorded in ESTC.

# Cultivating cucumbers

4. Allen (William Fry) A Treatise on an entirely original System of cultivating Cucumbers, Melons and Sea Kale, forcing Broccoli, Potatoes, &c. &c. With an Address to the Gardeners of Suffolk ... *Ipswich: R. Deck; sold also by Longman [etc.]*, [1834], pp. iv, 28, 8vo,

[bound with:]

Weeden (John) A practical Treatise on the Growth of Cucumbers. Uxbridge: By the Author; sold also by Messrs. Longmans; *Cosier (Uxbridge), [etc.], [1832], FIRST EDITION, engraved frontispiece and one lithographed plate of cucumbers (foxed),* pp. vii, 30,

[and:]

[Sinclair (George), (attributed to)] Useful and Ornamental Planting. Baldwin and Cradock, 1832, FIRST EDITION, woodcut illustrations, pp. iv, 151, (Fussell III, p. 112; Perkins 1580) contemporary green half calf, gilt, lettering-piece lost, slightly rubbed, good £550

The first two items in this volume are rare. The author of the first, Allen, was gardener to Rev. M. G. Edgar, Red House, Ipswich. It is not in Fussell or Perkins; OCLC locates two copies, at the Massachusetts Horticultural Society and the Guildhall Library, London.

The author of the second item describes himself as gardener to R. H. Cox Esq., of Hillingdon House, Uxbridge ('for upwards of twenty-one years'). This item is not in OCLC, nor Fussell or Perkins.

#### New discoveries

5. Ampère (André Marie) and Babinet (Jacques)
Exposé des nouvelles découvertes sur l'electricité et
le magnétisme, de MM. Oersted, Arago, Ampère, H.
Davy, Biot, Erman, Schweiger, De la Rive, etc. Paris:
Méquignon-Marvis, 1822, FIRST EDITION, with numerous
woodcut diagrams and illustrations in the text, pp. [iv],
91, 8vo, drab wrappers, good (Overmier and Senior p.
127; not in Gartrell or Wheeler Gift)
£2,500

A important, scarce and early publication on electricity and magnetism, a 'very valuable Treatise' (Mottelay). Ampère's collaborator in the present publication, Jacques Babinet, 'did excellent work in different areas of physics. He was an early advocate of the wave theory of light [and] produced important results in the theory of refraction' (Ekelöf p. 287). An additional interesting aspect of the present paper is a first



outline of Ampère's ideas concerning an electric telegraph (p. 71). The work is in fact an offprint from the Supplement to the French translation of Thomas Thompson's *System of Chemistry: Système de Chimie. Traduit .. par J. Riffault.* The supplement is entitled: Supplément .. présentant ce qui a été fait de nouveau dans cette science .. depuis l'époque (1819) où cette traduction a paru, Paris 1822 (see Cole 1283).

6. Archimedes. Archimedis Opera: Apollonii Pergæ Conicorum Libri IIII. Theodosii Sphærica: Methodo nova illustrata, & succinctè demonstrata. [Edited by Isaac Barrow.] Guil. Godbid, apud Rob. Scott, 1675, 3 separately paginated parts, 29 folding plates of mathematical diagrams, third part title bound before second part, minor browning and some spotting, first few leaves with edges slightly chipped, pp. [x], 144, 245-285, [3], [viii] (including titles to both second and third parts), 104, 38, small 4to, contemporary calf, rebacked, backstrip with five raised bands and red morocco lettering-piece, contemporary manuscript mathematical notes on rear flyleaf, near contemporary engraved bookplate of William Carmichael [of Carmichael] inside front cover, later inscription recording the return of the volume to Carmichael House in 1876, Kenney Collection book label, modern inscription on flyleaf, good (Wing A3621; ESTC R6704)

The first edition printed in England of the surviving works of Archimedes (complete except for the texts only rediscovered in the Archimedes Palimpsest in 1906). Two other important works of ancient geometry, the *Conics* of Apollonius and the *Spherics* of Theodosius, are included. The editor and translator was Isaac Barrow, the first Lucasian Professor of Mathematics at Cambridge (in which position he was succeeded by his student, Isaac Newton). Barrow seems to have been indifferent to publication – he completed this book in the 1650s and only grudgingly agreed to have it published twenty years later, refusing to revise the text or check the proofs.

Barrow, one of the last proper Renaissance scholars – equally distinguished in mathematics, classical studies, and theology – was a good fit for Archimedes, one of the greatest minds of antiquity, who made important discoveries in geometry, statics, hydrostatics and mechanics. He considered his work on the volumes of the spheres and cylinders above to be among his finest achievement and asked that it be recorded on his tombstone.



Item 7

#### An unrecorded edition

7. Aristotle (pseud.) Aristotle's Last Legacy, unfolding the mysteries of nature in the generation of man ... Printed for R.G. and are to be sold by the Booksellers of London and Westminster, 1704, wood-engraved 'portrait' frontispiece, dog-eared and a bit frayed in places, without loss except for a tiny fragment of the frame of the portrait, small hole in frontispiece with loss of 2 whole and 2 half letters, single wormhole in lower margins towards the end, light damp-staining in the lower margins near the front, pp. [x, including portrait and initial blank], 110, 12mo, original sheep over wooden boards, text block broken and loosening, loose in binding, upper cover pitted and 2 small pieces of boards exposed, preserved in a cloth folding box (Not in Wing, ESTC, or Worldcat)

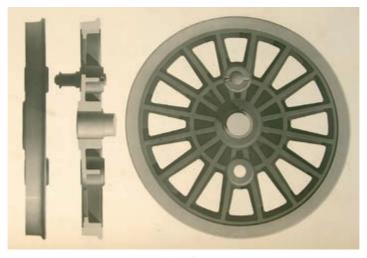
An unrecorded, and possibly the first, edition of this abridgement of *Aristotle's Master-piece*, the ever popular sex-manual, first published in 1684. The earliest edition of this title in ESTC is 1707, same printer. At about the same time there was another book whose title begins with this phrase, but is in fact on fortune telling. Though the condition of this copy is poor, it is 'genuine'.

The splendid frontispiece shows a magus-like figure, bald, bearded and clad in black robes, seated at a table with a celestial globe on it, behind the sitter a book-lined wall, in the background, next to a window, a framed figure of Death, a miror and a couple of other small objects.

8. Aristotle (pseud.) The Works of Aristotle, the famous philosopher: in four parts, containing 1. His Complete Master Piece; displaying the Secrets of Nature, in the Generation of Man. To which is added, The Family Physician: being approved Remedies for the various Distempers incident to the Human Body. 2. His experienced Midwife: absolutely necessary for Surgeons, Midwives, Nurses and Child-bearing Women. 3. His Book of Problems; containing various Questions & Answers, relative to the State of Man's Body. 4. His Last Legacy: unfolding the Secrets of Nature, respecting the Generation of Man. New and Improved Edition. *Printed for Miller, Law, and Cater, [c. 1820], 8 woodcut illustrations in the text, occasional slight spotting or staining,* pp. 317, [1], 12mo, original sheep, a bit worn, especially the spine, upper joint cracked, lacking lettering piece, good £375

All editions of this 'Aristotle' tend to be rare, and heavily used, so that this is quite a good copy. An edition for Miller, Law, and Cater, with an added engraved title-page, is conjectured by ESTC as 1795. COPAC records three copies of the present edition (no copy in the BL), with conjectured dates between 1810 and 1821.

9. [Armengaud (Jacques-Eugène and Charles) and Le Blanc (V.)] The Engineer and Machinist's Drawing-Book: A Complete Course of Instruction for the Practical Engineer: comprising Linear Drawing, Projections, Eccentric Curves, the Various Forms of Gearing, Reciprocating Machinery, Sketching and Drawing from the Machine, Projection of Shadow, Tinting and Colouring, and Perspective. Illustrated by Numerous Engravings on Wood and Steel. Including Select Details, and complete Machines. Forming a progressive series of lessons in drawing, and examples of approved construction on the basis of the works of M. Le Blanc, and MM. Armengaud. Glasgow (printed), Edinburgh, London and New York: Blackie and Son, 1855, additional engraved title and 71 leaves of plates (two pairs forming double-page plates, both pages numbered), one hand-coloured; two plates with clean



Item 9

tears, one browned, first two leaves creased, a few minor stains, pp. viii, 116, folio, contemporary half brown morocco, a little worn, cloth bubbled on upper cover, original owner's name in gilt at foot of spine (H. Patchett) sound £200

A monument to early Victorian engineering, and a tour de force both of technical drawing and printing, the plates engraved by Joseph Wilson Lowry. The work originally appeared in 1846, or 1847, and various new editions appeared in the succeeding years, occasionally styled new and improved.

## From Confectionery to Chilbains

10. [Atkyns (Arabella), pseudonym] The Family Magazine: in two Parts. Part I. Containing useful directions in all the Branches of House-keeping and Cookery. Particularly shewing how to buy-in all the best of all sorts of Provisions ... With several hundred Receipts ... Together with the Art of making English Wines, &c. Part II. Containing, a compendious Body of Physick; explaining the Virtues and Properties of all Sorts of Meats, Drinks, Herbs, Plants, Roots, Seeds, &c. used either as Food or Physick. And succinctly Treating of all the Diseases and Accidents ... With practical Rules and Directions for the Preserving and Restoring of Health and Prolonging of Life. As also how to make all Kinds of Balsams, Salves, Ointments, Elixirs, Cordials, Diet-drinks, Syrups, Electuaries, Powders, &c. ... Third Edition, revised, corrected and greatly enlarged. To which is prefixed, a brief account of the Efficacy of Tar-water ... J. Osborn, 1747, a few simple woodcuts of place settings in the text, pp. [viii], iii-xiv, 126 [4], [ii], 305 [7], 8vo, contemporary calf, rebacked, a little rubbed, good (ESTC N8298; Bitting, p.550; Maclean, p.49) £800

A good example of a mid eighteenth-century household book. First published in 1741, with a revised edition in 1743. This third edition in fact consists of sheets of the second edition, with the six-page section on tar water inserted after the title page. This copy preserves the second edition title page to Part II. It has been slit for cancellation, but was inadvertently left in place (and now neatly repaired). This edition is uncommon: ESTC lists six copies, BL only in the UK.

11. **Bancroft** (Edward) Experimental Researches concerning the Philosophy of Permanent Colours; and the best means of producing them, by dying, callico printing, &c. ... Vol. I [all published in this edition]. *Printed for T. Cadell, Jun. and W. Davies, 1794*, FIRST EDITION, half-title discarded, title toned and dusty, some light toning and spotting elsewhere, pp. [iii]-xlvii, [1], 456, 8vo, fairly recent half black calf with marbled boards, backstrip with five raised bands between gilt fillets, red lettering-piece, fourth and sixth gilt lettered direct, patterned endpapers, edges untrimmed, a little rubbed, good (ESTC T78907; Cole 35; Neville I p. 68) £500

A significant work on colours and dyeing by the dye-maker, chemist, and spy Edward Bancroft (1744-1821), introducing 'the important distinction between "substantive" and "adjective" dyes (Partington III p. 515). The more philosophical side of his writing did not see wide acceptance by the practically-oriented printing and dyeing industry in the nineteenth-century, but he was practically much more influential: herein he defined several technical terms for the first time, applied new Continental developments in chemistry to dyeing, and developed influential theories of dye attachment to fabric.

Although the title page states this is 'Vol. I', Bancroft's circumstances prevented the appearance of a 'Vol. II' until the second edition, which was issued in two volumes some twenty years later. The Neville Catalogue marries a copy of the present vol. with a copy of the second vol. of 1813, remarking that the 1794 edition is 'extremely rare.'

## Banister's Breviary of the Eyes

12. Banister (Richard) A Treatise of One Hundred and Thirteene Diseases of the Eyes, and Eye-Liddes. The second time published, with some profitable additions of certain principles and experiments, by Richard Banister. By Felix Kyngston, for Thomas Man, 1622, FIRST EDITION of the first part (i.e. Banister's Breviary: see below), nineteenth-century manuscript notes and owner's signature on the front free endpapers, strengthened with archival paper, contemporary owner's signature and small stain to inner margin of the title, page numerals given in ink by a contemporary hand to the contents of the second part, browned, some dampstaining to a few leaves towards the end, pp. [xxii], [90], [xx], [348], 12mo, modern calf-backed buckram (rather tight), spine with four raised bands, red morocco lettering-piece ('Guillemeau's Diseases of the Eyes') in the second compartment, sound (STC 12499.5 (under Guillemeau; formerly 1362); ESTC S100793; G-M 5820; Wellcome I, 2998 (under Guillemeau); Norman catalogue 114; James, Studies in the History of Ophthalmology in England, pp. 58–62) £2,500

The first part, *Banister's Breviary*, is 'a collection of aphorisms, ocular therapies, and case histories compiled by Banister in 1621 while in Stamford; it was published the following year in London, as an essay preceding a reprint of an English translation (said by Banister to be long unavailable) of the Traité des maladies de loeil qui sont en nombre de cent treize by Jacques Guillemeau, originally published in Paris in 1585 ... Banister's Breviary contains, in addition to an exposé of "proud quacksalving Mountebankes" and "emptie empirickes," some interesting observations of medical practices of the day. In it he recognized hardness of the eye as an important diagnostic and prognostic sign, anticipating by a century and a quarter the work of J. Z. Platner' (ODNB). The second work, by Guillemeau, had been the first ophthalmic book in French, and, translated, became the second ophthalmic book in English; it is followed by a tract on scurvy by Johann Weyer, and another on cancer by Benoît Textor.

13. Barnes (William) A Few Words on the Advantages of a More Common Adoption of the Mathematics as a Branch of Education, or a Subject of Study. [Printed by Weston, Simonds, and Sydenham for] Whittaker and Co., London, Clarke, Dorchester, et al., 1834, FIRST EDITION, pp. 23, 12mo, original printed wrappers, upper cover a trifle spotted, book-label of John Lawson, and a pencil note identifying this as Siegfried Sassoon's copy, very good (COPAC records copies at the BL, Cambridge and Oxford; OCLC adds Fisher Library, Toronto, and Chapel Hill) £350

A scarce Dorchester-printed booklet by the Dorset poet, philologist, and schoolmaster: a rather effective plea for the 'use of the mathematics.' Thomas Hardy observed of Barnes,



'A more notable example of self-help has seldom been recorded' (quoted in ODNB), and the present text is an embodiment of that ethic. The work is dedicated to Major-General Shrapnel, eponymous inventor of one of the nastier armaments.

14. **Bartholomew (J.G.)** Atlas of Meteorology. A Series of over Four Hundred Maps. *Edinburgh: The Royal Geographical Society, 1899,* FIRST EDITION, *coloured frontispiece and 34 double-page plates, each with multiple maps, a few minor spots,* pp. [viii], 40, [2], xiv, folio, *original half dark blue textured cloth, lighter blue cloth boards, front board and spine gilt-lettered direct, very good* £225

Although the half-title and spine lettering declares this to be 'Vol. III' of the *Physical Atlas*, that was an ill-fated project and the present volume was the first of only two completed volumes. (The other was Vol. V, *Zoogeography* twelve years later.) Bartholomew, part of a dynasty of cartographers (starting with his grandfather and continuing to his grandson, all named John Bartholomew), was the top cartographer of his time, holder of a royal warrant, and the introducer of the coloured contour layer map. This volume features a large number of delicately coloured meteorological maps and, by virtue of collecting all the recent developments in the field during a time of great discovery, played a large part in the development of meteorology into a modern science.

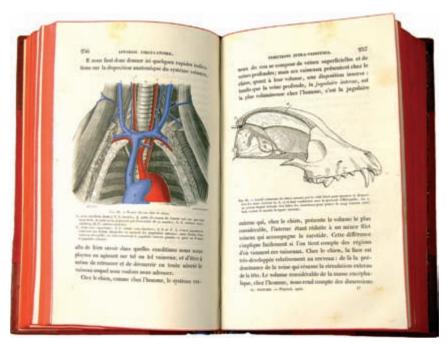
15. **Bentley (John)** A Historical View of the Hindu Astronomy: from the earliest dawn of that science in India, down to the present time. In two parts. Part I. The ancient astronomy. Part II. The modern astronomy, with an explanation of the apparent cause of its introduction, and the various impositions that followed. To which are added, I. - Hindu tables of equations, &c. for calculating the true heliocentric and geocentric places of the planets. II. - Remarks on the Chinese astronomy. III. - Translations of certain hieroglyphics, called the zodiacs of Dendera. *Smith, Elder, & Co., 1825, 9 folding plates on thin paper (Plate II bound as frontispiece), a few spots, one plate a little frayed at fore-margin, another with a short tear in one of the folds, pp. xxxiv, 282, 8vo, original drab boards boards rebacked in pebble grain grey cloth, uncut, good* 

Second edition of the first English treatise on Indian astronomy (first published at Calcutta in 1823). John Bentley (1750-1824) was an English astronomer and member of the Asiatic Society of Bengal. A brother-in-law of Sir John Herschel was a partner in Smith, Elder, & Co., while another was a medical man in the service of the East India Company, and this seems to have fostered the publisher's interests in the Sub-continent.

#### An anti-vivisection binding

16. **Bernard (Claude)** Leçons de physiologie opératoire. *Paris: Baillère, 1879,* FIRST EDITION, with 116 illustrations in the text, three of which partly hand-coloured, pp. [ii], xvi, 614, 8vo, near-contemporary half blood-red calf, blood-red edges, top edges slightly faded, slightly rubbed, some rippling of the cloth, Frances Power Cobbe's copy with her armorial bookplate (attached to half-title) and inscribed by her, very good £600

An extraordinary artefact and a wonderful association copy of what might be termed the Bible of vivisection (Bernard's last work), having belonged to, and put into a 'bloody'



Item 16

binding by, the personification of anti-vivisection, the feminist activist Frances Power Cobbe. 'For Cobbe, as for a number of other Victorian feminists, there was a close connection between feminism and the anti-vivisection campaign, in that both were fighting to protect defenceless creatures from the limitless powers of men. Her crusade against vivisection began in 1863 ... Cobbe's battles against vivisection soon encompassed a broader attack on the arrogance, brutality, and atheism of science and of the medical profession. For many, Cobbe personified the anti-vivisection movement, imbuing it with great energy but also with an intransigence that some saw as ultimately harmful to the cause' (ODNB).

One can easily imagine the utter horror which the illustrations would have inspired in such an absolute anti-vivisectionist. Indicating that the book was bound for Cobbe, and not subsequently, are the inscriptions on the front free endpaper. At the top is 'Pray return this book soon to Miss Frances Power Cobbe, Hengwrt, Dolgellau' and below this 'Presented to Mabel Cook by her affectionate friend FPC, August 1902', that is, just two years before her death. The motto on the armorial book-plate adds further to the poignancy of the association: in the top quarter of the arms are two swans, and the motto is 'Moriens cano' (dying, I sing).

Cobbe had a very wide social and literary circle, including Darwin, whom she met in Wales, and corresponded with, mostly about canine matters. However, they fell out over vivisection. Oxford today features regular anti-vivisectionist demonstrations.

Boerhaave's iatromechanical credo

17. **Boerhaave (Hermann)** De usu ratiocinii mechanici in medicina oratio ... *Leiden: Johann Verbessel,* 1703, FIRST EDITION, woodcut printer's device on title, one or two spots or stains, pp. [iv], 44, small 4to, disbound, very good (Heirs of Hippocrates 742; Lindeboom 18) £1.500

The rare original printing of Boerhaave's 'iatromechanical credo'. 'Boerhaave restored the declining prestige of the Faculty of Medicine at Leiden, and in 1703 he was offered a professorship at the University of Groningen. He rejected the offer, and the governors of Leiden, anxious to retain him, promised him



the first chair to be vacant there [which came in 1709, when this text was re-issued]. At the same time he was authorised to give an academic oration [the present work]' (DSB).

OCLC records only two copies in North America, Iowa and McGill, besides two copies in Edinburgh, two in Denmark, and four in the Netherlands.

18. **Bossut (Charles)** Nouvelles Expériences sur la Résistance des Fluides; Par MM. d'Alembert, Le Marquis de Condorcet, & l'Abbé Bossut, Membres de l'Académie Royale des Sciences. Paris: Claude-Antoine Jombert, 1777, 5 folding engraved plates showing the towing tank in which the experiments were done, and the equipment, advertisement leaf, engraved head-piece to the first leaf of text, a few insignificant spots, pp. [iv], 232, 8vo, modern dark unlettered calf, red edges, bookplate Mario and Fiammetta Witt, good (Rouse & Ince, History of Hydraulics, p.128) £350

'In 1775 Bossut, d'Alembert, and the Marquis de Condorcet were charged by the government with a series of texts on the resistance of bodies of various shapes in connection with the expanding system of inland navigation. For this purpose, and largely under Bossut's guidance, a towing tank about 100 feet long, 50 feet wide, and 7 feet deep was provided with a gravity drive, and studies were made on the effect of bow form and relative cross-sectional proportions. The principal conclusion reached was that (as had already been demonstrated in a miniature towing tank by Benjamin Franklin) the resistance increased as the relative area of the channel diminished, and an earlier proposal for the use of underground canals was thereupon dropped' (Rouse & Ince).

19. **Bossut (John [i.e.** Charles]) A General History of Mathematics from the earliest times to the middle of the Eighteenth Century. Translated from the French. *J. Johnson, 1803*, FIRST ENGLISH TRANSLATION, *just a little faint spotting, blank corner of second leaf torn*, pp. xxvi, 540, [4], 8vo, *contemporary marbled calf, recently rebacked in a different style, smooth backstrip gilt-lettered direct, new endpapers, old leather a little cracked at edges, corners a touch worn, good £350* 

The first English translation of this history of mathematics by the Abbot Charles (not John) Bossut (1730-1814), who also edited the works of Pascal and taught hydrodynamics at the Louvre. The form of the history is largely biographical rather than technical, and

Dauben and Scriba (*Writing the History of Mathematics*, 2002) call this translation the first historical account of mathematics to appear in English. The ODNB attributes the introduction and chronological table to the mathematician John Bonnycastle, and the actual translation to T.O. Churchill.

#### **Kinetics of Chemical Reactions**

20. Boyle (Robert) New Experiments and Observations touching Cold, or an experimental History of Cold ... To which are added an Examen of Antiperistalsis, and an Examen of Mr. Hobs's Doctrine about Cold. Printed for John Crook, 1665, FIRST EDITION, 2 engraved plates, one folding, chiefly of thermometers, tear repaired at fold, the other of an Italian snow pit, title printed in red and black and within double ruled border, lightly browned and slightly brittle at the edges, with small tear to this and the 'To the Reader' leaf, both neatly repaired, advertisement leaves after 2Y4 and 3f2, a few edges touched by damp, Contents leaves bound before Preface, pp. [lx], 696, [4], 697-845, [2], 54, [8], 8vo, contemporary calf, rebacked, spine with four raised bands, ruled in gilt, and with gilt lettering in the second compartment, good (ESTC R16750; Fulton 70)

'The treatise on "Cold" is a milestone in the history of chemistry since it applies a quantitative tool, namely the thermometer, to a study of the interaction of elemental substances and mixtures ... Not only does he account for the process of freezing, but also proves that ice has a smaller specific gravity than water (and so must expand on freezing). The work is significant too for the large number of physiological observations, including that frogs and fish could be frozen in ice and revived if slowly thawed, and that extreme cold prevented putrefaction of animal tissues, and could be used for the preservation of meat' (Fulton). Boyle's writings containing these experiments were also an important source for Locke's well-known distinction between primary and secondary qualities.

Boyle had close connections with Oxford, moving here around 1656 and joining the lively group of natural philosophers centered on Wadham College under the auspices of John Wilkins, warden; the group also included such figures as the Anglican physician Thomas Willis. The significance of this group for the later development of English science has often been emphasized, and it clearly had a major impact on Boyle. It was now that he seriously confronted the writings of the major continental natural philosophers, notably Gassendi and Descartes, refining and modernizing the ideas that he had acquired from the essentially Renaissance authors whom he had encountered earlier in the decade. In addition, it seems that at this time Boyle discovered more of the intrinsic interest of knowledge about the natural world, as against the apologetic motives that had dominated his initial espousal of experimental learning earlier in the 1650s' (ODNB).

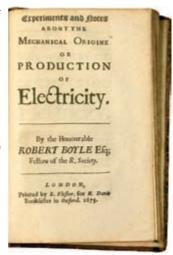
#### Inter alia, the first work on electricity in the English language

21. **Boyle (Robert)** Experiments, Notes, &c. about the Mechanical Origine or Production of divers particular Qualities: among which is inserted a Discourse of the imperfection of the Chymist's Doctrine of Qualities: together with some Reflections upon the Hypothesis of Alcali and Acidem. *E. Flesher for R. Davis Bookseller in Oxford*, 1676, FIRST EDITION, second issue (the same as the 1675 first issue apart from the cancel title: remains of cancelled title visible),11 parts in one volume, without blank leaf B8 (see below) but with the other three, closed tear to

blank margin of second leaf, a little dampstaining in the margins of a few leaves, tiny hole caused by a paper fault in one leaf, not affecting text, a little bit of spotting here and there, various paginations, small 8vo, contemporary calf, skilfully rebacked with original spine laid on, later spine lettering-piece, contemporary signature of John Stratford, Balliol College, 1681, with his cost price of five shillings, good (Fulton 124; Norman 303 (lacking the Directions/errata leaf); Wing B3977; ESTC R14290)

£7,000

'This collection of eleven tracts is rare and often imperfect, and it contains two of Boyle's major contributions to physical science ... the collection is important because of the tracts on magnetism and electricity ... it was Boyle who brought the term [electricity] into common usage, and his tract is the first work on electricity in the English language



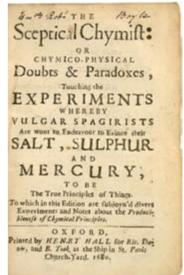
... The tracts on taste and smell are the first monographs in the history of physiological literature to be devoted to these special senses' (Fulton).

Fulton does not give the collation in the usual place - 'it is too involved to be of any value given here' - but instead indicates it when listing the contents. Our copy collates as per Fulton, except that the Directions to the Binder follows the preliminary Advertisements. The imperfections alluded to by Fulton are usually the leaf with Directions to the Binder (an inserted leaf), whose absence would be a material lack, and the blank B8, which isn't. In fact B8 is a nuisance, resulting from a miscalculation in the setting. B7 verso, p. 28 (C1 starts on p. 29), has the word Finis at the foot, at the end of only the 8th experiment: this irritated the original owner so much he crossed it out, and, probably, excised the offending leaf (there is a stub), as apparently did most attentive readers, or, perhaps, the publisher.

#### The Producibleness of Chymical Principles

[Boyle (Robert)] The Sceptical Chymist: or Chymico-Physical Doubts and 22. Paradoxes, Touching the Experiments Whereby the Vulgar Spagirists are Wont to Endeavour to Evince Their Salt, Sulphur and Mercury to be the True Principles of Things. To which in this Edition are subjoyn'd divers Experiments and Notes about the Producibleness of Chymical Principles. Oxford: Printed by Henry Hall for Richard Davis and B. Took, 1680, Second edition of the Sceptical Chemist, FIRST EDITION of Experiments and Notes, without the advertisement (as usual), some browning, confined to three gatherings in the first part, more general in the second, a few ink or rust spots, pp. [xx], 440, [xxviii], 268, 8vo, contemporary English calf, double gilt fillets on sides, gilt fleurons in the corners, surface of covers crackled, rebacked and recornered, old staple holes to upper board from a chained library, old ink notes to front flyleaf and name of author at top of title page written in an old hand, Sion College library stamp and release stamp (dated 1938) to title verso, good (Wing B4022; Fulton 34; Madan 3261 and 3260; PMM 141 (first edition); ESTC £9,500 R16310)

'The importance of Boyle's book must be sought in his combination of chemistry with physics. His corpuscular theory, and Newton's modification of it, gradually led chemists towards an atomic view of matter ... Boyle distinguished between mixtures and compounds and tried to understand the latter in terms of the simpler chemical entities from which they could be constructed. His argument was designed to lead chemists away from the pure empiricism of his predecessors and to stress the theoretical, experimental and mechanistic elements of chemical science. The Sceptical Chymist is concerned with the relations between chemical substances rather than with transmuting one metal into another or the manufacture of drugs. In this sense the book must be considered as one of the most significant milestones on the way to the chemical revolution of Lavoisier in the late eighteenth-century' (PMM).



In Experiments and Notes about the Producibleness of Chymicall Principles 'Boyle

undertook to show that many of the substances best qualified for the title elements could, in fact, be produced by transmutation from a variety of other elementary starting materials. And he considered this an important demonstration because: "If the bodies they call principles be produced de novo how will it be demonstrable, that nature was obliged to take those principles made ready to her hand, when she was to compound a mix't body?" (Kuhn p. 28).

The first edition of *The Sceptical Chymist* (London, 1661) can now command a six-figure sum.



Item 23

23. **Bromfield (William)** An Account of the English Nightshades, and their Effects. With the original case of Dr. Lambergen, as delivered in his inaugural thesis. Also Practical Observations on the Use of Corrosive Sublimate, and Sarsaparilla; on the different Effects of Mercury Crude, and when prepared by Chemistry. And Some Hints offered to the Faculty, on the Cure of the Lues Venerea by the Secretion of Urine instead of Salivation. *Printed for R. Baldwin and G. Woodfall, 1757*, FIRST EDITION, with a folding hand-coloured engraved plate depicting the three varieties of Nightshade, without the half-title, a little browned at the beginning, pp. [xxii], 94, 8vo, quarter calf, neatly rebacked, fore-edge worn, good (ESTC T16290) £250

One of the more distinguished surgeons of mid-eighteenth-century London, Bromfield was taught by Ranby, to whom this work is dedicated.

## A Huddersfield Herbal in the Culpeper tradition

Brook (Richard) A New Family Herbal; or a history and description of all the 24. British and Foreign Plants, which are useful to man, either as food, medicine, farming purposes, or in the arts and manufactures. Compiled from the works of Hill, Woodville, Don, Culpepper, and other botanists ... Fourth Edition, enlarged and improved. To which is now added an entire new Supplement, containing safe, certain, and infallible rules for the preservation of health ... pointing out the dreadful consequences arising from the administration of mineral Poison-Physic ... Huddersfield: Printed and Published by Richard Brook, [1851?], with 21 handcoloured plates and two plain (the latter of the human anatomy), a little bit of soiling consistent with use, an errata slip tipped in opposite p. 87 (pointing out an Important Error, the reader being desired to replace drachms with grains, which has duly been done), pp. xxxvi, [ii, blank], 22 (the Supplement, intended to be bound at the end), 450 (pp. 442/3 omitted in the pagination), [1], 12mo, contemporary half calf, gilt ruled compartments on backstrip and lettered direct, a bit rubbed, good £450

This was a popular herbal which went through many editions. Exactly when the first edition was published is uncertain, though probably it is Culpepper's *Herbal Improved: A New Family Herbal*, Huddersfield, 1847. The work seems to have satisfied a demand since the 72nd thousand was published in 1887: the earliest editions, amongst which this must be counted, are very scarce. Two testimonial letters, extolling Dr. Torrens' Pills, are printed at the end of the Supplement, the second from an emigrant in the United States, dated Swinton-ville, near Peoria, Sep. 14th, 1850. The Supplement also lists agents from whom the Pills might be obtained – an interesting network, mostly Northern, but including London (and including the bookseller S.Y. Collins who was co-publisher of the Supplement) – and also offers Splendid Cases for binding the Herbal, price fourpence. The present binding is possibly one such, and the availability of them reinforces the probability that the work was issued in parts.

#### The Fly-catcher

25. **Brown (Robert)** Remarks on the structure and affinities of Cephalotus. *Printed by Richard Taylor, 1832*, FIRST EDITION, *contained in* The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science, *Third Series, Vol. 1, No. 4, October 1832*, pp. 314-7 (the entire issue [249]-[328], 8vo, *unopened, original printed wrappers, two small stains near top of spine, otherwise fine* £500

Brown was asked by Joseph Banks to serve as botanist on Matthew Flinders' 1801 expedition, which was to answer the question whether New Holland was one island or several. For three and a half years Brown did intensive botanical research in what is now Western Australia, collecting about 3400 species, of which about 2000 were previously unknown. After his return to England in 1805, Brown spent much of the rest of his life working on the specimens he had collected. The present paper describes the carnivorous species Cephalotus follicularis, commonly called the Albany Pitcher Plant, the fly-catcher plant, the mocassin plant, or the Western Australian Pitcher Plant.

Brown is best known as the discoverer of 'Brownian motion', widely regarded as one of the most important discoveries of nineteenth-century physics. It was, however, a byproduct of his botanical work, as he first noted it by observing the motion of pollen grains suspended in water.

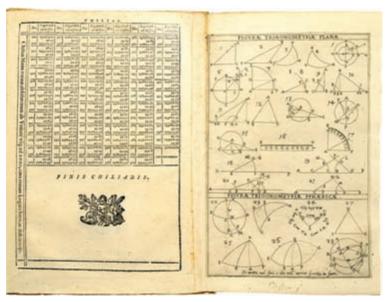
26. Browne (Sir Thomas) Pseudodoxia epidemica: or, Enquiries into very many Received Tenents, and commonly Presumed Truths. The Fifth edition. With Marginal Observations, and a Table Alphabetical. Whereunto are now added Two Discourses, The one of Urn-Burial, or Sepulchrall Urns, lately found in Norfolk. The other of the Garden of Cyrus, or Network Plantations of the Antients. Printed for the Assigns of Edward Dod, 1669, engraved portrait frontispiece, engraved frontispiece to each of the appended works, each with their own title-page (that of Cyrus dated 1668), engraved illustration in the text in the last part, uniformly slightly browned, a little more pronounced in a few places, paper flaw in B2 and B4 with the loss of some letters and two or three words in the latter case, neat marginal repair to lower margin of portrait frontispiece, which is trimmed at the top, minor worming in top inner margin of first few leaves, pp. [xvi, including initial blank], 414 (recte 418), [2, blank], [16], [viii], 70, [2, blank], 4to, contemporary unlettered calf, a little rubbed and worn, surface of leather crackled, repairs to head and foot of backstrip, joints cracked but cords holding, sound (Keynes 78 and 96 [Urn-Burial &c.]; ESTC R19506; Wing B5164) £250

Keynes dubs the portrait frontispiece the 'palimpsest' plate in view of the fact that it had almost certainly done duty as the portrait of somebody else, the head only being reengraved. Recorded in Arber's Term Catalogues, 1, II, as 'Price, bound, 6s.', this copy is no doubt in the trade binding.

#### **Esculent**

27. **Bryant (Charles)** Flora Diætetica: or, History of Esculent Plants, both domestic and foreign. In which they are accurately described, and reduced to their Linnæn Generic and Specific Names ... For B. White, 1783, SOLE EDITION, pp. xvi, 379, [13], 8vo, contemporary tree calf, the backstrip with five low raised bands, ruled in gilt, black morocco lettering-piece, sides with gilt borders, backstrip neatly repaired, good (ESTC T144474; Henrey 528)

A useful work of botanical reference on edible plants to which reference is still made today, including information on the habits and properties of plants, which parts are of nutritious value and their qualities and effects. Bryant's work is based on a list of Linnean names of edible plants by Hugh Rose, apothecary of Norwich, which he organised, enlarged and expanded with his own observations and descriptions.



Item 28

## The introduction of logarithms into Italy

28. Cavalieri (Bonaventura) Trigonometria Plane, et Sphaerica, Linearis et Logarithmica. Bologna, Vittorio Benacci, 1643, FIRST EDITION, with an engraved frontispiece and one engraved plate (attached to fore-edge of last leaf and folding), first gathering of text a little browned, a little bit of spotting here and there, pp. 16, 71, [104, tables], 4to, contemporary vellum, very good (Riccardi II, 328, No. 9; Cinti 111) £2,400

A fundamental work of trigonometry and without doubt the best text on the subject published in Italy during this period. The work is also a Galileianum, thoroughly described in Cinti. Cavalieri was among the first mathematicians to understand the practical applications logarithms held for astronomers and was the first Italian to do so. In addition to chapters on the basics of plane and spherical trigonometry, this work contains one hundred pages of logarithmic tables which were widely used throughout the seventeenth century, most notably by Cassini.

Cavalieri's theory of indivisibles was his most outstanding contribution to mathematics. In the preface to the present work, he replies to attacks by Paul Guldin in the third volume of his *Centrobaryca* and explains how his method differs from that of Kepler.

29. Celsus (Aulus Cornelius) De re medica. Libri octo. Ex recensione Leon. Targae ... editio secunda, accuratissime emendata, opera et studio Georgii Frederici Collier. Simpkin and Marshall, 1831, four leaves of plates (one folding), folding plate lightly offset to title, a few marginal pencil annotations, pp. xl, 342, [2], 8vo, contemporary

half calf with marbled boards, backstrip with four raised bands between one thick black and two thin gilt fillets, a gilt floral roll on the bands, green morocco lettering-piece in second compartment, the rest plain, somewhat rubbed at extremities, armorial bookplate of Arthur Farre, MD, and withdrawn stamp of Gwynedd Library Service to front pastedown, good £100

The copy of the obstetrician Arthur Farre (1811-1887), Physician Extraordinary to Queen Victoria (among other honours and appointments) and, like the editor George Frederick Collier, a fellow of the Royal College of Physicians. The final leaf is an advertisement for Collier's public lectures and private practice. COPAC lists holdings of this edition in Durham and UCL only.

30. Charleton (Walter) Spiritus Gorgonicus, vi sua saxipara exutus; sive De causis, signis, & sanatione litheaseos, diatribe. *Leiden: Elsevir, 1650,* FIRST EDITION, woodcut printer's device on title, a little bit of marginal damp-staining towards the end and occasional light foxing, pp. [xii], 242 plus final blank leaf, 12mo, contemporary vellum, blue sprinkled edges, contemporary signature on title, D'Apply, very good (Willems 674; Wellcome II 329)

A most attractive copy of the author's first book, 'a Helmontian exercise in the causes and cure of "the stone" [which] drew attention to Charleton as a representative of the new iatrochemistry. This was then much in vogue with more radical thinkers, who saw Galenism in medicine as an ancient authority, which did more to bolster the authority of the church and the crown than to heal the ills of the people' (ODNB).

It is no doubt no more than a coincidence, but the Charleton family originally came from Apley in Shropshire.

31. Clairault (Alexis-Claude) Théorie de la Figure de la Terre. Paris: David, 1743, FIRST EDITION, engraved vignette on title, diagrams in the text, pp. xl, 305, [5], 8vo, contemporary French sheep, spine richly gilt in compartments, marbled endpapers, red edges, head and foot of spine repaired, rubbed, bookplate of (?Guiseppe) Canterzani on front pastedown, very good £750

Clairaut's book is a theoretical epilogue to the Lapland expedition and to a series of questions concerning the shape of the earth. It contains a formula called 'Clairaut's theorem', which expresses the earth's gravity as a function of its latitude. Clairaut went beyond Newton (who is still extensively quoted in the preface), and his work is still considered the best on the subject. It also has important consequences for



hydromechanics in that it deals with the problem of determining figures of equilibrium for a fluid mass spinning subject to an arbitrary law of forces. Most important, however, it presents for the first time a general vector field' (Roberts & Trent p. 72).

There was a contemporary Bolognese mathematician Giuseppe Cantezari.

32. Clarke (Samuel) A Collection of Papers, which passed between the late Learned Mr. Leibnitz, and Dr. Clarke, in the Years 1715 and 1716. Relating to the Principles of Natural Philosophy and Religion. With an Appendix. To which are added, Letters to Dr. Clarke concerning Liberty and Necessity; From a Gentleman of the University of Cambridge: With the Doctor's Answers to them. Also Remarks upon a Book, Entituled, A Philosophical Enquiry concerning Human Liberty. Printed for James Knapton, 1717, FIRST EDITION, main part of text in parallel French and English, one woodcut diagram in text (repeated), rather browned in places (as often), pp. xiii, [3, errata], 416, 46, [2, advertisements], 8vo, contemporary mottled calf, spine gilt with lettering-piece, covers ruled in gilt, former owner's bookplate on title verso, spine darkened, cracked and rubbed with loss of gilt, engraved armorial bookplate on verso of title of Edward Haistnell of the Middle Temple, dated 1718, with a few annotations by him on flyleaf and in text, good (ESTC T113561) £1,250

Clarke (1675-1729), was a close friend of Newton and defended him against the charges of atheism posed by Leibniz. This defence sparked an exchange of ten letters, each of increasing length, between Clarke and Leibniz, that lasted until the latter's death in November of 1716. This book prints these important letters for the first time. 'Clarke saw the conflict with Leibniz as involving not merely a differing interpretation of the physical universe and its phenomena but as a far more basic one implying a struggle between freedom and necessity Clarke's most direct contribution to physics during the course of this correspondence came in a footnote to his fifth paper, in which he considered the problem of computing the force of a moving body' (DSB).

'Give us back the eleven days we have been robbed of'
33. [Costard (George)] A letter to Martin Folkes, Esq.
... Concerning the Rise and Progress of Astronomy among the Antients. *Printed by Jacob Ilive for T.*Osborne and J. Hildyard at York, 1746, FIRST EDITION, pp. [2], 158, [1, errata],

[bound with:]

[Costard (George)] A Further Account of the Rise and Progress of Astronomy amongst the Antients, in three letters to Martin Folkes. *Oxford: Printed at the Theatre, for Richard Clements, 1748*, FIRST EDITION, pp. 163, [1, bookseller's catalogue],

[and:]

Parker (George) Remarks upon the solar and the lunar years the cycle of 19 years, commonly called the golden number, the epact, and a method of finding the time of Easter, as it is now observed in most parts of Europe. Being part of a letter from the Right Honourable

53 Georganian due Confedibilitions not in apparent human historial procession. Then experience the procession of the

George Earl of Macclesfield to Martin Folkes, Esq; President of the Royal Society, and by him communicated to the same May 10, 1750. Charles Davis, 1750, FIRST EDITION, pp. [2], 19, with folding table at end, 8vo, three works in one vol., with a few diagrams and illustrations in the text of the first two, and much Greek, Hebrew and Arabic type, a little browned in places, contemporary polished calf, spine gilt

in compartments with red lettering-piece, rebacked with original spine laid on, marbled endpapers, edges of the second work stained red, book label of Biblioteca San Isidoro de Urbe on front paste-down with their ink stamp at foot of title and last leaf and manuscript inscription on title, ink stamp of Biblioteca San Vilaseca on title recto, later ownership inscription of Richard Francis Walsh, 1827, on first title, good (ESTC T38154, T148086 (in North America only two copies in California located), T118141 (two US locations only, Huntington and Kansas) £1,200

Costard (1710-1782) was educated at Wadham College, Oxford, where he became fellow and tutor. One of the earliest writers on the history of astronomy, his Letter to Martin Folkes and Further Account treat the Astronomy of the Chaldeans, of the Constellations in the Book of Job, and of the Mythological Astronomy of the Ancients. In his view exact astronomy was a product of Greek genius, beginning with Thales, and owed little either to Egypt or Babylon. His works are still worth consulting for the frequent references to and citations from Hebrew, Arabic, and the less-known Greek authors contained in them.

'In parliament [George Parker, second earl of] Macclesfield was a principal proponent in 1752 (with Lord Chesterfield) for the adoption of the Gregorian calendar and the change in the new year from 26 March to 1 January. He communicated to the Royal Society on 10 May 1750 a preparatory paper entitled 'Remarks upon the solar and the lunar years' and made most of the necessary calculations, and his speech in the House of Lords on 18 March 1751, on the second reading of the Bill for Regulating the Commencement of the Year, was printed by general request. Lord Chesterfield wrote of him as the virtual author of the bill ... Macclesfield's action in the matter was in some quarters unpopular. When his eldest son, Lord Parker, contested Oxfordshire in 1754, one of the cries of the crowd was, "Give us back the eleven days we have been robbed of" (ODNB).

St. Isidore's College in Rome was founded in 1625 by the Irish priest Luke Wadding (b. 1588). Its original purpose was the training of missionary friars to keep faith alive at home, but it became a haven for Irish nationalist exiles, and a centre for learning, culture and missionary activity known throughout Europe.

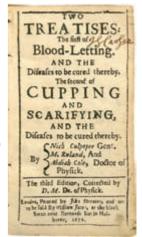
34. Craig (John) De calculo fluentium libri duo. Quibus subjunguntur libri duo de optica analytica. Pearson, 1718, FIRST EDITION, head-pieces of printer's ornaments, woodcut tail-pieces, numerous woodcut diagrams in the text; title-page a bit browned, a little browning elsewhere, pp. [viii], 92, 4to, modern half-calf and marbled boards, spine lettered in gilt, late 18th-century inscription at head of Dedication 'Greenock Library [illegible] donation', good (ESTC T32114) £2,250

Craig was one of the first in Britain to realise the vast possibilities of the calculus and was the most zealous of all English mathematicians in its use. In books published in 1685 and 1693, he gave the first account for English readers of the Leibnizian calculus, including Leibniz's notation for differentials and integrals. Although published last, the present work was composed first, and deals mainly with the Newtonian calculus. Apart from its intrinsic importance, this work is particularly interesting because, in its preface, Craig gives an account of the steps that led to his interest in the 'fluxional calculus', and of his showing the MS to Newton. The second part of this book, on optics, has been largely ignored by historians of science.

Culpeper on Blood-Letting, a rare edition

35. Culpeper (Nicholas) and Cole (Abdiah) Two Treatises: the first of Blood-Letting, and the Diseases to be cured thereby. The second of Cupping and Scarifying, and the Diseases to be cured thereby. The third edition, corrected by D.M. Dr. of Physick. Printed by John Streater, 1672, a little browned, a marginal note on one page, pp. [xii, including initial 2 blank leaves, verso of last leaf blank], 144, 12mo, original sheep, worn, inner hinge broken but cords holding, contemporary signature on title of J.S. Crosse, sound (Wing C7551; ESTC R28585) £1,500

Rare: Oxford and Cambridge, Folger (incomplete) and Yale only in ESTC. First published in 1663 (two copies recorded, both UK), no copy of a second edition is recorded. Besides the two parts mentioned in the title, there are aphorisms from Hippocrates, Galen, Celsus, Arnold de Villanova, Avicenna, Rhazes, Aetius, Savonarola, Mesue (Damascen)



and others, and a final section on cupping. The marginal manuscript note is found on p. 39, against the passage 'In Feavers ... In Women with Child, the Saphena ...' It seems to read 'if you intend miscarriage.'

36. Darwin (Charles) On the Power of Icebergs to make rectilinear, uniformly directed Grooves across a Submarine Undulatory Surface. *Printed by Taylor and Francis*, 1855, FIRST EDITION, contained in The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science, Fourth Series, Vol. 10, No. 64, August 1855, pp. 96-8 within entire issue (pp. [73-152], with two plates), 8vo, unopened, original printed wrappers, two small areas of insect damage to upper wrapper, wrapper a trifle soiled, very good (Freeman 1681)

Darwin's contribution to the long-running controversy over the origin of striations in rocks, of 'erratics' (large boulders found in isolation), and of other geological features that we now associate with the action of glaciers. The glacial theory had been put forward by Agassiz and other Swiss geologists in the 1830s, but their views had been attacked by Darwin, who had seen the glaciers of Tierra de Fuego. Darwin believed erratics to have been transported by icebergs during a period when the land was covered by the sea. Here, Darwin is more sympathetic to the glacier theory, but still does not abandon his earlier views based upon his observation in South America.

37. De Moivre (Abraham) The Doctrine of Chances: or, a method of Calculating the Probabilities of Events in Play. The Third edition, Fuller, Clearer, and more Correct than the Former. Printed for A. Millar, 1756, with engraved portrait medallion on title, engraved head- and tail-piece, occasional slight spotting, pp. [iv], xi, [i], 348, 4to, contemporary speckled calf, spine gilt in compartments, rebacked with the old backstrip laid down, corners worn, ownership inscription on flyleaf of Jas. Jerwood, St. John's, Cambridge, 1828, later inscription of Chas. Ansell Jr, good (Kress 5546; ESTC T33063)

'De Moivre's work on the theory of probability surpasses anything done by any other mathematician except Laplace. His principal contributions are his investigations respecting the duration of play, his theory of recurring series and his extension of the value of Bernouilli's theorem by the aid of Sterling's theorem' (Cajori). The extent to which this edition, published just after the author's death, is indeed 'Fuller, Clearer, and more Correct' is spelled out by Todhunter.

Charles Ansell Jr, like his father, was an actuary (see ODNB).



38. De Moivre (Abraham) The Doctrine of Chances: or, a method of Calculating the Probabilities of Events in Play. The Third edition, Fuller, Clearer, and more Correct than the Former. Printed for A. Millar, 1756, with engraved portrait medallion on title, engraved head- and tail-piece, occasional dust staining, pp. [iv], xi, [i], 348, 4to, modern half green morocco, spine gilt in compartments, red lettering piece, good (Kress 5546; ESTC T33063)

Another copy.

The brain as an organ integrating the functions of mind and body

39. Descartes (René) Les Passions de l'Ame. Sur la Copie imprimées à Amsterdam. Paris: chez Avgvstin Covrbé, 1650, title with centrepiece of typographical ornaments, decorative woodcut initials, woodcut tailpiece, single wormhole to outer blank margins building into a small thread and decreasing again through preliminaries, ink doodles at the end of the text, pp. [xlviii], 286, 12mo, contemporary calf, with later polishing and gilt, the backstrip panelled with double gilt fillets and central rosettes, the sides with double gilt fillets, upper cover a little rubbed, head of backstrip repaired, good (Guibert p. 153, 4; Garrison-Morton 4965 (first edition, Amsterdam 1649))

In this remarkable work, his last major title, Descartes discusses how the passions, or emotions, which are seen as not evil in themselves, but only in excess, can be disciplined and their effects regulated by reason. He sets this within the well-defined parameters of the doctrine of free will and his belief in the immortality of the soul. It was primarily Descartes' correspondence with Princess Elizabeth of Bohemia, who probed the implication of his commitment to mind-body dualism, that led to the work. Having had an unfortunate time living in the Netherlands during this period, Descartes was then invited by Queen Christina to Sweden. He was asked to give the Queen philosophy lessons beginning at five in the morning. It is said that this may have contributed to his demise in 1650 from pneumonia.

The bibliography of this work is complicated. First published in French by Elsevier in Amsterdam in 1649, it then appeared under five different Paris imprints, most of which

are scarce, in 1650 and for which no chronological precedence appears to have been established. The Elsevier editions of this work (either with their imprint or the Le Gras imprint which is known to be from the same source) have appeared several times at auction in the last thirty years, and only two copies with other imprints (none matching this one).

40. Donn (James) Hortus Cantabrigiensis; or, a Catalogue of Plants, indigenous and exotic. Sixth Edition. Cambridge: by G. R. Clarke, [etc.], 1811, pp. [viii], 292, 8vo, contemporary half calf, backstrip ruled and decorated in gilt and blind, green morocco lettering-piece lettered vertically in gilt, marbled boards, slightly rubbed at the edges, good £120

The revised edition of a popular work dedicated to the Duke of Gloucester which lists Latin and English names, native place, date of cultivation (i.e. of discovery) and flowering period: the potato, Solanum tuberosum, for instance, is dated 1597. 'Donn himself greatly enlarged the scope of his book from the fifth edition, so that it ceased to be in any way limited to what he grew in the Cambridge garden' (ODNB).

#### Le Povrtraict with a portrait

41. Duchesne (Joseph) Le Pourtraict de la Santé. Ou est au vif representé la reigle universelle & particuliere de bien sainement & longuement vivre. Enrichy de plusieurs preceptes, raisons, & beaux exemples, tirez des medecins, philosophes & historiens, tant Grecs que Latins, les plus celebres. Paris: Claude Morel, 1620, fine engraved portrait of the author, a couple of gatherings sprung, slight staining to title, minimal worming in the lower inner margin, pp. [xvi, including the portrait], 591, 8vo, contemporary vellum over soft boards, remains of leather ties, soiled and a little worn, good (Wellcome 1888; Vicaire cols. 167-68; OCLC records only the CPP copy in the US, where only four copies of the first edition are listed)



The is the fourth edition (first 1606), but the first to contain the author's portrait. Duchesne (often catalogued under the latinised form of his name, Quercetanus, or indeed by his title, sieur de la Violette – or variations thereon), was born c. 1544 and died in 1609. This is the first posthumous edition (of his last book), hence, no doubt, the occasion for including the portrait. The portrait, showing him in his 60th year, was drawn by himself: the legend beneath the portrait advises us to join the spirit of the words in the book to the image, to have the living person.

'Duchesne is a figure of some importance in French literature, as well as science and medicine' (Alan Debus in DSB), but it is of course as a chemist and Paracelsian that he is best remembered. The present work, which is also of considerable gastronomic interest, can be seen as a coda to the life's endeavour.

The book is in three sections: the first on perturbations of the spirit (ambition, avarice, envy, &c); the second on the office of the true doctor, and on general headings such as air, sleep, wine, &c; and the third on actual foodstuffs, their preparation and beneficial qualities.

Duchesne also translated the book into Latin (published the same year as the first edition) for the benefit of foreigners. Although this copy undoubtedly 'shows its age,' it does so in a manner not disagreeable.

42. Duncan (Andrew, Junior) Catalogue of medicinal plants, according to their natural orders. Edinburgh: P. Neill, 1826, FIRST (PONLY) EDITION, scarce, inscribed 'from the Author' at head of title, title-page slightly browned and thumbed, pp. iv, 27, 8vo, disbound and loose (thanks to savage sewing), preserved in a red folding cloth case, good £250

'My object has been to make this List universal; as Pupils from this school go to every part of the world.'

'In 1821 [Duncan] was elected without opposition professor of materia medica, in which chair he achieved great success. He worked indefatigably, always improving his lectures and studying every new publication on medicine, British or foreign. He was often at his desk by three in the morning' (ODNB).

# 'To think of shadows is a serious thing'

43. Dupain de Montesson (Louis Charles) La Science des Ombres, par Rapport au Dessein. Ouvrage nécessaire à ceux qui veulent dessiner l'Architecture Civile & Militaire, ou qui se destinent à la Peinture: dans lequel ils trouveront des régles démonstrées pour connoître l'espéce, la forme, la longeur & la largeur des ombres ... Le Dessinateur au Cabinet à l'Armée. [Second edition.] Paris: Charles-Antoine Jombert, 1760, 18 folding engraved plates, half-title, pp. xvi, 92, [2], iii, [1], 95-168, [4], 8vo, contemporary French mottled calf, the smooth backstrip divided with triple gilt fillets, each panel with gilt fleurons and other tools, red morocco lettering-piece, the upper joint just starting at the head but still strong, marbled endpapers, red edges, good (Berlin Katalog 4737)

Dupain de Montesson (c.1720-1790) was a geometer and military tactician, teacher of the Duc de Berry, and the author of various works on military architecture, perspective, and mathematics. This popular manual on shadows for the use of artists and draughtsmen was first published in 1750, and has a second section dealing with military draughtmanship, including four engraved plates on the subject showing fortifications.

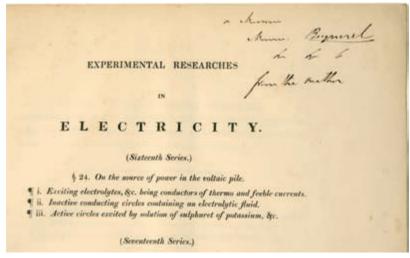
#### The Herefordshire Husbandman

44. Ellis (William) The Practical Farmer: or, the Herefordshire Husbandman: containing many New Improvements in Husbandry. I. Of meliorating the different soils ... II. Of the nature of several sorts of Wheat ... III. Of the great improvements

of Barley ... IV. Of encreasing Crops of Pease and Beans ... V. Of Trefoyle, Clover, Lucerne, and other foreign Grasses. VI. A new Method to improve Land... VII. Of the Management of Cows, Sheep ... VIII. How to keep tame Pigeons and tame Rabbits ... IX. A new Method of planting and improving Fruit-trees ... Second Edition; with additions. [With:] The Practical Farmer ... Part II. For W. Bickerton, 1732, FIRST EDITION of the second part, with contemporary manuscript annotations including a recipe for preserving 'your Wheat from Snails & other Vermin after sowing', at the foot of the last page of Part I, and more than a full page of notes at the end about enriching soils, etc., a few small threads of worming through the lower blank margins of the first leaves, pp. iv, 171, [5]; [ii], 54, [8], 8vo, modern Cambridge-style panelled calf, red morocco lettering-piece, double gilt fillet borders to sides, good (ESTC T16818, T16821; Fussell II, pp. 7-8)

William Ellis and Jethro Tull were the two dominant figures in the development of new farming techniques in England during the first part of the eighteenth century. Ellis had first been a customs officer then a brewer before buying a farm in Hertfordshire with his second wife's money; this gave him the freedom to experiment with techniques and to write about them, and he soon was being invited to other farms as a consultant. This influential miscellany of agricultural improvements was popular, and the first part saw three editions (two London, one Dublin) in the same year; the second part also had its first edition that year. This volume unites the second edition of the first part with the first edition of the second – this probably reflects the availability of copies at the time of the second part's publication. All the earliest printings are somewhat scarce; ESTC lists eleven locations for the second edition of Part I and eight for the first edition of Part II.

The first owner of this copy was clearly a keen 'Practical farmer', as evinced by the manuscript notes, and also by his highlighting which of the books listed in the advertisements that were of interest – mainly, but not exclusively, agricultural.



Item 45

## A fine association copy of a seminal paper

45. Faraday (Michael) Experimental Researches in Electricity. Sixteenth [-Seventeenth] series. On the source of power in the voltaic pile [-Continued]. R. & J.E. Taylor, 1840, FIRST EDITION, offprint from the Philosophical Transactions of the Royal Society of London, Vol. 130, Part I, with one engraved plate, title page with small repair at lower inner corner, very slightly browned around the edges, pp. [ii], 61-127, 4to, backstrip reinforced with plain paper strip, sometime folded once vertically, inscribed by the author to Antoine-César Becquerel, preserved in a cloth folder, very good, £2,000

Faraday's seminal paper on the voltaic controversy, which put paid to the contact theory. This is a fine presentation copy linking Faraday with one of the other major figures in the controversy. 'In the early decades of the nineteenth-century, it was not clear whether the production of electricity in the cell was due to the mere contact of dissimilar bodies, or whether it depended upon a chemical reaction. The principle of conservation of energy had not yet been clearly enunciated, but Becquerel believed that there was a close relationship between electricity on the one hand and heat, light and chemical forces on the other' (DSB I, 557).

46. Faraday (Michael) Experimental Researches in Electricity. Eighteenth series. On the electricity evolved by the friction of water and steam against other bodies *R. & J.E. Taylor, 1843*, FIRST EDITION, offprint from the Philosophical Transactions, Part I for 1843, with an engraved plate, uncut and unopened, a little frayed at edges, plate creased at lower outer corner and duststained there, pp. [ii], 17-32, 4to, original cream wrappers, dustsoiled and frayed at edges, sometime folded once vertically, inscribed by Faraday to Schonbein 'from his friend the author' on title page and addressed and signed by Faraday to Schonbein in Basle on rear wrapper, good
£1,500

Christian Friedrich Schönbein, the discoverer of ozone, taught briefly at a school in Epsom, and while in Britain made the acquaintance of several leading scientists, including Faraday; the two corresponded for many years. From 1836 Schönbein attributed the origins of the voltaic current to chemical action (see previous item). The present paper was stimulated by the so-called Seghill incident, when a workman at the mine placed his hand in the steam issuing from a boiler while his other hand was on the lever of the valve, a spark discharge occurred and the workman received a electrical shock. William G. Armstrong investigated, than applied to Faraday for help.

# The Faraday Effect

47. Faraday (Michael) Experimental Researches in Electricity. Nineteenth [-Twentieth, Twenty-first] series. On the magnetization of light and the illumination of magnetic lines of force [-On new magnetic actions, and on the magnetic condition of all matter, ibid. continued]. R. & J.E. Taylor, 1846, FIRST EDITION, offprint from the Philosophical Transactions, Part I for 1846, a few diagrams in text, tear at head of second leaf repaired, next 4 pp. slightly soiled, pp. [ii], 62, 4to, backstrip reinforced with paper, sometime folded once vertically, inscribed by the author on the title-page to Antoine-César Becquerel, preserved in a cloth folder £2,500

One of Faraday's most important papers, containing his discovery of diamagnetism and the 'Faraday effect', the basis of the science of magneto-optics, as well as his most important conceptual discovery, that of the (magnetic) field, a term first used in this context in the present paper. Faraday won the Royal Medal of the Royal Society in 1846 for this paper. This is a fine presentation copy linking Faraday with another major researcher into the nature of electricity and magnetism.



'The last, and in many ways the most brilliant, of Faraday's series of researches' (DSB).

48. Ferguson (James) An Introduction to Electricity. In six sections. I. Of Electricity in general. II. A Description of the Electrical Machine. III. A Description of the Apparatus (belonging to the Machine) for making Electrical Experiments. IV. How to know if the Machine be in good Order for performing the Experiment, and how to put it in order if it be not. V. How to make the Electrical Experiments, and to preserve Buildings from Damage by Lightning. VI. Medical Electricity. Illustrated with copper-plates. Printed for W. Strahan and T. Cadell, 1770, FIRST EDITION, 3 folding engraved plates by Bayly after Ferguson, uniformly very slightly browned, offset from plate onto last page of text, pp. [iv], 140, 8vo, contemporary calf, red lettering piece on spine, joints cracked but cords holding, spine darkened, worn at extremities, signature of Elihu Thomson on front paste-down, with bookplate of The Franklin Institute Library (Elihu Thomson Collection, Given by Mrs. Elihu Thomson), good (ESTC T53441; Bakken p. 57; Wheeler Gift 429b)

Initially Ferguson's lectures dealt mainly with astronomy and mechanics, and resulted in his hugely successful textbooks *Astronomy explained upon Sir Isaac Newton's Principles* (1756) and *Lectures on Select Subjects in Mechanics* (1760), but from 1768 onwards he included electricity in his lecture courses, and as this topic was not covered in either of these two books he produced this *Introduction*. The last 8 pages have 'A Catalogue of the Apparatus on which Mr. Ferguson reads his course of twelve Lectures, and details of how the courses may be subscribed to, in London and at various distances therefrom.' Scarce on the market.

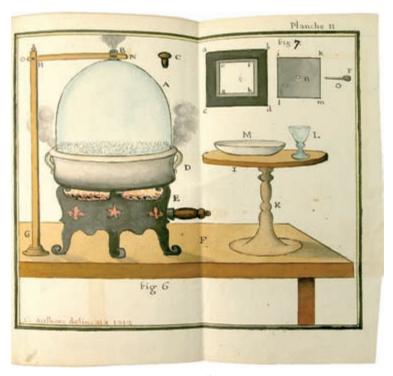
Born in Manchester in 1853, Elihu Thomson grew up in Massachusetts and would become one of the most prolific inventors in US history, eventually joining Thomas Edison to form the General Electric Company. In a career that spanned five decades, Thomson was granted 696 US patents for various types of inventions related to electricity, including arc-lights, generators, electric welding machines and X-ray tubes.

49. Ficino (Marsilio) Contro alla Peste. Insieme con Tommaso del Garbo, Mengo da Faenza, & altri autori, e ricette sopra la medesima materia. Florence: Giunta, 1576, woodcut device on title and initials elsewhere, one or two old marginal notes and underlining, just a touch of foxing and a few small stains in places, library withdrawn stamps to title (dated 1873) pp. [viii], 120, [16], 8vo, contemporary limp vellum,

backed in marbled paper, title inked to lower edge, a light stain to front, spine darkened and chipped, paper worn at one band and cracked at the other, showing two pinprick wormholes and the remains of two old paper labels, sound (CNCE 18953; Adams F415)

The second sixteenth-century edition (preceded by one in 1523; an earlier printed edition was c.1481) of Ficino's treatise on the plague, to which is added Tommaso del Garbo's earlier treatise and several letters by other authors, all on the same subject. The plague had broken out in Italy and Sicily in the 1570s, inspiring the reprinting of these texts and others which suggest remedies and preventatives. Ficino (1433-1499) was the first translator of Plato's complete works into Latin and is more generally known for his Neoplatonist philosophy, but composed this treatise, attributing the contagion to specific properties of bad air, during the outbreak of plague in 1478-9.

50. Flaugergues (Honoré) [Pair of Manuscript fair copies of two of his papers published in the Journal de Physique.] [Paris], 1809-12, Manuscripts in ink on paper, one with a folding Table, the other with an original coloured drawing (the latter loose), pp. 8 and 4, 4to, contemporary (not uniform) marbled paper wrappers (Houzeau & Lancaster II 1393)



Item 50

Attractive manuscript copies of *Memoire sur une Equation nouvelle du troisème satellite de Jupiter* (published in *Journal de Physique*, LXVII, 1809) and *Memoire sur un moyen de faire le vuide*, *sans employer la machine pneumatique* (published in *Journal de Physique*, LXXV, 1812). Flaugergues was an amateur astronomer, with his own observatory at Viviers in the south of France. He made many observations of Mars and Jupiter, and discovered the Great Comet of 1811. These manuscripts do not appear to have been made for presentation, and are likely to be the author's own fair copies.

51. [Fontenelle (M. de)] A Plurality of Worlds. Written in French by the author of the Dialogues of the Dead. Translated into English by Mr Glanvill. Printed for R. Bentley, 1688, FIRST EDITION of this translation, light toning, a little minor spotting, pp. [xii], 152, 8vo, eighteenth-century sprinkled calf, serviceably rebacked in a slightly lighter shade with most of old backstrip preserved, this with gilt decoration (rubbed), the old leather scratched and rubbed at extremities, corners lightly worn, hinges neatly relined, bookplate of E.N. da C. Andrade and a few pencil notes to endpapers, good (ESTC R26138; Wing F1416)

The second English translation of this important and popular dialogue on other worlds, first published in French in 1686. Its immediate popularity is attested to by the fact that a translation (by 'Sir W.D., knight') was published in Dublin in 1687, followed in the next year by this translation by Glanvill (the first printed in England) and two issues of a version by Aphra Behn. Glenvill's text saw its fifth edition in 1728, by which point there were several other translators also publishing versions.

Fontenelle's work was one of the first scientific publications aimed at a popular audience: it takes the form of a dialogue between a philosopher and a marquise, walking in a garden under a night sky while the philosopher explains the heliocentric model of the universe and the existence of other planets, also hypothesizing about extraterrestrial life. Written in French instead of Latin, it also explicitly addresses female readers. It did much to popularise the ideas of Copernicus and Descartes, and has been called the most influential work on the subject in its period.

This copy belonged to the physicist, writer, and broadcaster Edward Neville da Costa Andrade (1887-1971), for many years Quain Professor of Physics at the University of London.

#### A Nettmaker's copy

52. [Fortin (François) and Louis Liger] Delices de la Campagne ou les Ruses de la Chasse et de la Pesche ... Un Traité de la Volerie & des Oiseaux qui y servent. Avec les plus beaux Secrets de la Pêche. ... augmenté d'un Dictionaire, de tous les termes de Chasse, de Pêche & de Filets. Quatrième Edition ... augmenté d'un nouveau traité de la grande Chasse & de la connoissance des Chiens. [Two volumes]. Amsterdam: Michel Charles le Cene, 1732, additional engraved title as frontispiece to vol. i, shaved at fore-edge, titles printed in red and black, 90 engraved plates, including 8 folding, small tears to the folds of one or two plates, contemporary ownership inscriptions in both vols. of 'Samuel Tules, at Tottenham High Cross, 1732, Nettmaker', (that in vol. I crossed out) and later eighteenth-century signature of Philip Griffin of Warnford, Hants., on the pastedowns, pp. xvi, 343; vi, 271, 12mo,



Item 52

contemporary calf, sympathetically rebacked, gilt panelled spines, brown morocco lettering-pieces in the second compartments, minor repairs to the feet of the spines, good (Schwerdt I, 136) £850

First published in 1709 as *Amusemens de la Campagne* (attributed to Louis Liger), and later published as *Amusemens de la Chasse* in 1743, this scarce work is in five books: the first is taken from Fortin's *Les Ruses innocentes*, the other four from Liger's work. We have found one record for this edition on COPAC, and six on OCLC.

Many of the traps and other apparatus illustrated in the plates involve netting of one sort or another, and it is interesting to find the strictly contemporary ownership inscription of an English 'nettmaker' in this copy

## Brigid Brophy's annotated Freud, with a manuscript essay

53. Freud (Sigmund) [Collection of works in English annotated by Brigid Brophy:]
Civilization and its Discontents. Second impression. The Interpretation of Dreams.
Completely revised edition. Inhibitions, Symptoms and Anxiety. Second impression.
Group Psychology and the Analysis of the Ego. Fifth Impression. Collected Papers.
Volume I [-V]. Various later impressions. All The Hogarth Press and the Institute of Psycho-Analysis except the second, George Allen & Unwin Ltd., 1930-53, nine vols., portrait frontispiece in the first work, 2 pp. in vol. ii of Papers failed to print, 8vo, original cloth, 3 vols. with dust wrappers, spines darkened, that on vol. i of the

Papers frayed, all vols. with extensive notes on the front flyleaves, and occasionally elsewhere, by Brigid Brophy, text with underlinings and a few notes, 3 vols. signed by Brigid Brophy, with, loosely inserted in in vol. iv of the Papers an untitled manuscript essay on telepathy (or The Uncanny, as Freud has it), a quarto of 2 1/3 pp, good £950

Brigid Antonia Brophy, Lady Levy (1929-1995), 'a lifelong crusader for multitudinous causes ranging from writers' rights and animals' rights to sexual freedom, women's liberation, and vegetarianism, produced a varied and extensive body of work. Her best-known novels are *The King of a Rainy Country* (1956), *The Finishing Touch* (1963), and *In Transit* (1969). Admittedly influenced by Sigmund Freud's theories, Ronald Firbank's literary style, and G. B. Shaw's aesthetics, Brophy's writings express unconventional and controversial opinions about modern relationships, religious education in schools, sexual psychology, pornography, and gender issues' (*Contemporary Literary Criticism*, on-line).

Brophy was one of the liveliest literary voices of the 1960s. However in 1983 she was diagnosed as suffering from multiple sclerosis, and, as her output diminshed, so did her star. But another reason that her memory has faded somewhat is that she was ahead of her time. 'Her non-fiction is as ambitious as her fiction. *Black Ship to Hell* (1962) comprises nearly 500 footnoted pages of stylish, rigorous psychoanalysis: The theme of the book is man as a destructive and, more particularly, a self-destructive animal: a theme whose urgency is obvious at a time when he is threatening to commit suicide as a species' (Giles Gordon, Obituary in *The Independent*).

Brophy has noted passages of interest, writing out the topics with their page numbers on the flyleaves of all the volumes, testament not only to close reading but also to rereading. Whether she had any other volumes of Freud in her library we do not know, but certainly the most important ones are here. This set is a prime example of a writer 'at the coal face.'

54. Fuchs (Leonhard) De historia stirpium commentarii insignes, adjectis earundem vivis et ad naturae imitationem artificose expressis imaginibus. Lyons: B. Arnoullet, 1549, FIRST EDITION of this pocket version, woodcut printer's device on title, portrait of the author on the verso, and 510 woodcuts in the text engraved by Clement Bussy, occasional slight browning, but a fresh copy, pp. [xxxii, last 3 pp. blank], 852, [12], 8vo, contemporary Lyonese calf, blind ruled fillet panels on sides with gilt fleurons at the corners, gilt medallion at the centre, spine gilt with a small bird tool in compartments, hatched at top and bottom (Oxford style), joints and corners skilfully repaired, early 17th-century ownership insciption at head of title, book-label inside front cover of Pierre Lambert, very good (Adams F1102; Baudrier X, 120, Hunt 61, Mortimer 640) £4,500



An attractive copy. The small woodcuts (reduced from the 1542 folio versions) and the portrait were commissioned by Arnoullet for this edition (they were used later as well). The practical utility of a small illustrated herbal is evident, as opposed to the imposing folios, which could only be consulted in the study.

55. Gauss (Carl Friedrich) Beiträge zur Theorie der algebraische Gleichungen.

Göttingen: Heinrich Dieterich, 1849, FIRST EDITION, offprint issue, with one lithographed plate, some foxing (due to paper quality), pp. 34, 4to, new blue paper backstrip, good

£1,350

First edition of Gauss's fourth and final proof of the fundamental theorem of algebra, that every polynomial equation in one unknown has a root.

The fundamental theorem of algebra was first stated by Albert Girard in his *Invention nouvelle en l'algèbre* (1629), and proofs were attempted by many mathematicians including d'Alembert, Euler and Lagrange, but Gauss was the first to provide a proof that is close to modern standards of rigour. Gauss's first attempted proof was the subject of his 1799 doctoral thesis. Later commentators pointed out that the 1799 proof is not fully rigorous (although much superior to all earlier attempts), and in fact this was almost certainly realised by Gauss himself who produced three further proofs, in 1815, 1816 and 1849. The present proof is the first to make use of complex numbers explicitly, and to treat the most general case in which the coefficients of the polynomial can themselves be complex (earlier proofs had assumed that the coefficients are real numbers).

56. Geikie (Sir Archibald) [Wrapper title:] Arran. The Building up of the Island. [Glasgow: Arran Society of Glasgow, 1910], FIRST EDITION, author's offprint '(This article forms the Introduction to "The Book of Arran")' at foot of upper cover, with a full-page Table of the Geological Formations in Arran drawn by the author, pp. 30, [2, blank], 4to, original pale green printed wrappers, upper wrapper unevenly dust-soiled, lower wrapper very slightly rubbed, split at top of backstrip, inscribed on the upper cover 'To John Horne from Arch. Geikie', good (Edinburgh University only in COPAC and Worldcat)

A lyrical account of the geology of Arran. 'Nowhere within the bounds of Scotland, so famous for its ample chronicle of ancient volcanoes, can a corresponding area be cited with so full a record of subterranean activity as Arran possesses.' The recipient of this copy, John Horne worked under Geikie on the Geological Survey, and twice, when sent in to the field to corroborate or otherwise Geikie's theories, came out against his superior. When Geikie retired in 1901, Horne was appointed Assistant Director of the Survey, with responsibility for Scotland.

57. Genathius (Joannes Jacobus, editor) Decas I[-VII]. Disputationum Medicarum Select. [7 parts in 1 volume.] Basel: [J.J. Genathius], 1618-31, bound without Disp. V in Decas II (8 pp.), woodcut devices to section titles, two small wormholes in margin of first 50 leaves (once or twice touching a character), just a little minor staining and spotting, pp. [184], [184], [156], [160], [168], [192], [216], 4to, contemporary

vellum, yapp edges, vellum tabs at each section, all edges blue, bowed and a bit soiled, sound (VD17 23:632535Y) £800

A substantially complete collection of this rare series of dissertations from the medical faculty at Basel between 1601 and 1629, grouped in seven parts with 10-12 dissertations per part. The dissertations cover a wide range of topics, including scurvy, melancholy, kidney stones, arthritis, gout, epilepsy, female sterility, tumors, haemorrhoids, typhus (the 'Hungarian disease'), bloody sputum, and venereal disease. This copy seems to have been bound without one dissertation in part II, on jaundice, but is otherwise complete.

We are aware of only 3 institutions holding all 7 parts: the British Library, Herzog August Bibliothek, and University Library Basle. COPAC locates 3 other partial copies in the UK (4 parts in the Bodleian, 1 incomplete part in New College Oxford, 5 parts in Nat. Lib. Scot.); VD17 lists two other libraries, in Göttingen and Dresden, with 6 and 4 parts; Worldcat adds only the National Library of Medicine in Maryland, with 6 parts. We have been unable to trace any further listings in the Swiss union catalogues RERO or NEBIS.

58. Gilpin (Joshua) A monument of parental affection to a dear and only son.

Wellington [Shropshire]: F. Houlston and Son, 1808, FIRST EDITION, half-title, gift inscription to front endpaper, pp. xi, 177, 8vo, contemporary sprinkled calf, gilt panelled spine, black morocco lettering-piece, upper joint cracked but firm, armorial bookplate of Thomas Whitmore, very good

£300

A tender account by Joshua Gilpin of his talented and dear son, who lived until his final year at Oxford. His son's life was lived in the shadow of what appears to have been a variety of tuberculosis, and the work is an unusual account from a socio-medical point of view. Printed provincially, it was reprinted in London and ran to at least seven editions. COPAC lists only three copies of the first edition (Cardiff, Oxford, BL), with one (Cardiff) apparently defective.

'Germany's greatest man of letters... and the last true polymath to walk the earth'
59. Goethe (Johann Wolfgang von) Versuch die Metamorphose der Pflanzen zu
erklären. Gotha: Carl Wilhelm Ettinger, 1790, FIRST EDITION, FIRST ISSUE, the title
loosening, pp. [vi], 86, 8vo, original ochre-coloured speckled boards, backstrip
with original paper label and gilt lettering, backstrip and label a little rubbed, light
staining to upper cover, corners knocked, front pastedown with marks from the
erasure of an ownership inscription, ex-libris of Edgar Goldschmid, good (Norman
913; Pritzel 3452; Sparrow, Milestones of Science, p. 30)
£1,700

During his Italian journey, Goethe formulated a theory of plant metamorphosis in which the archetypal form of the plant is to be found in the leaf – he writes, 'from top to bottom a plant is all leaf, united so inseparably with the future bud that one cannot be imagined without the other'. In this work, Goethe essentially discovered the (serially) homologous nature of leaf organs in plants, from cotyledons, to photosynthetic leaves, to the petals of a flower. He published this theory of the principles of botany in *Versuch*, *die Metamorphose der Pflanzen zu erklären* (Essay in Elucidation of the Metamorphosis of Plants); an attempt to show that all plant forms are determined. Such distinct scientific focus on plant morphology was to have a profound influence on Darwin's work.

Although Richard Owen, the powerful British vertebrate anatomist (and staunch opponent of Charles Darwin), is generally credited with first articulating a definition of the word 'homology' (in 1843), it is clear that Goethe had already arrived at a sophisticated view of homology and transformation (within an idealist morphological perspective) more than fifty years earlier. This was not to be the only scientific field to which Goethe made a distinct contribution. His systematic study of the physiological effect of colour is the first of its kind, and his observations on the effect of opposed colours also led him to a symmetric arrangement of the colour wheel.

60. Goring (C. R.) & Andrew Pritchard. Micrographia: containing practical Essays on reflecting, solar, oxy-hydrogen gas Microscopes; Micrometers; Eye-pieces, &c. &c. Whittaker and Co., 1837, FIRST EDITION, folding engraved frontispiece, 2 engraved plates and one full-page illustration, pp. viii, 231, 8vo, slightly later dark blue half calf, the backstrip ruled with gilt fillets, red morocco lettering-piece, marbled boards, good £420

Pritchard (1804-1882) began his professional career as an optician but his attention was on microscopy. In 1824, while still an apprentice, at the instigation of Dr Goring he ground a single lens out of a diamond. He also fashioned simple lenses of sapphire, ruby, garnet, and spinel. Later he sold more old-fashioned microscopes, though his slide design – using a gum and isinglass mixture, with edges filled with red sealing wax, was innovative. 'His practical work on the microscope, however, was less important than his books on the applications of the instrument' (ODNB).

- 61. Goulard ([Thomas]) A treatise on the effects and various preparations of lead, particularly of the extract of Saturn, for different chirurgical disorders. Translated from the French ... Third edition with additions; and a Table. *P. Elmsly. 1772, folding table, faint smudged ownership signature on the front endpaper, a little staining to the edges at beginning and end,* pp. [viii], 232, 8vo, contemporary sheep, rebacked, backstrip with raised bands between blind rules, red leather lettering-piece, good (ESTC T18467; Wellcome III, 141)
- 62. Graham (Thomas J.) Modern Domestic Medicine: a popular Treatise, illustrating the Symptoms, Causes, Distinction and correct Treatment of the Diseases ... To which are added, a domestic Materia Medica; a copious Collection of approved Prescriptions, &c. ... The Seventh Edition, revised thoroughly, corrected and considerably enlarged. For the Author, by Simpkin and Marshall [etc.], 1837, pp. xii, 752, 8vo, contemporary half calf by S. Mepham of Dorchester, backstrip ruled in gilt and blind, black morocco lettering-piece, marbled boards, a little rubbed, book label of Edwd. Hine Upshall, good
  £100

On p. 78 we read: 'The cob-web of cellars, barns, and stables, is a valuable remedy for ague, and it also allays diseased irritability, and calms irritation, both of body and mind, often in a surprising manner ... Some American physicians who have taken it, say it produces a calm and delightful state of feeling, succeed by a disposition to sleep.'

### A rare work on Lucerne and other Grasses

63. **(Grasses.)** The improved Culture of three principal Grasses, Lucerne, Sainfoin, and Burnet: Wherein is described a new Method of cultivating Lucerne to much greater Profit than any hitherto practised in England or abroad; shewn by a Comparison of the several Methods. To which are added Observations on Clover. ([Half-title]: Also the Uses of it, for feeding Horses; for the Diary; and for fattening Black Cattle, Sheep and Deer.) *G. Robinson, 1775*, FIRST EDITION, half-title, diagram and table in the text, pp. [xvi], 320, 8vo, contemporary sprinkled calf, the backstrip with five raised bands, ruled in gilt, red morocco lettering-piece, a trifle rubbed, fine (ESTC N48222; Henrey 865; Perkins 859; not in Fussell)

A scarce book, this detailed account has interesting contemporary detail of agricultural methods, and much specific information about agricultural experiments in both England and France. The author has not been identified, but reveals that he knew Bartholomew Rocque, a market-gardener in Lincolnshire, who published his own work on the cultivation of lucerne in 1765. ESTC records six copies: BL, Cambridge, Southampton, and three US locations, Colonial Williamsburg, the Library Company of Philadelphia, and Louisiana State. COPAC adds the Wye Campus of Imperial College, and Worldcat finds three further USA copies, in Chicago, Johns Hopkins, and the National Agricultural Library.

64. Gua de Malves (Jean Paul de) Usages de l'analyse de Descartes, pour découvrir, sans le secours du calcul differentiel, les propriétés, ou affections principales des lignes géométriques de tous les ordres. Paris: Briasson, 1740, FIRST EDITION, four folding plates, pp. xxvi, 457, [3], 8vo, contemporary French calf, spine gilt with red lettering-piece, marbled endpapers, red edges, spine ends and corners repaired, good £1,100

De Gua's first treatise (1740) 'contributed to the rise of the theory of curves in the eighteenth century and partially inspired the subsequent works of Euler, Cramer, A.P. Dionis du Séjour and M.B. Goudin. The fame of this work led to de Gua's election to the Royal Academy of Sciences as adjoint geometer on 18 March 1741, replacing P.C. Le Monnier. The principal aim of this work, inspired by both Descartes's *Géométrie* and Newton's *Enumeratio linearum tertii ordinis*, was to develop a theory of algebraic plane curves of any degree based essentially on algebra. Nevertheless he drew on infinitesimal methods in order to simplify various calculations and recognized that their use is indispensable, particularly for everything involving the transcendental curves' (René Taton in DSB).



65. Hale (Thomas) A Compleat Body of Husbandry. Containing Rules for performing, in the most profitable Manner, the whole Business of the Farmer, and Country Gentleman, in cultivating, planting and stocking of Land; In judging ... Seeds, and of Manures ... in breeding and preserving Cattle ... To which is annexed the whole Management of the Orchard, the Brewhouse and the Dairy ... [Bound with] A Continuation of the Compleat Body of Husbandry *T. Osborne and J. Shipton [etc]*, 1756-1759, FIRST EDITION, 2 works in one vol., engraved allegorical frontispiece showing Ceres at her work, 12 engraved plates in the first work, one folding, one large engraved illustration, printed in two columns, one or two edges shaved, a

few upper margins touched by damp, small stain to title, one engraved plate in the 'Continuation', the last 3 leaves of the latter mounted on guards, pp. iv, ii, [viii], 3-719 [1]; [iv], 100, [6], folio, contemporary calf, the backstrip with six raised bands ruled in gilt, red morocco lettering-piece, corners knocked, good (Fussell p. 37; Perkins 737 and 738; ESTC T149761) £600

An extensive encyclopedic work on all aspects of cultivation and farming to equip the country gentleman. The plates include farming implements, plants, plants, buildings and even a dung pit. Most have several figures. This first edition has a greater number of plates than the subsequent editions.

The Continuation was separately published, and it is unusual to find them both together.

66. Hales (William) Analysis Aequationum. Dublin: Joseph Hill, 1784, FIRST EDITION, a little light soiling, withdrawn stamp of the University of London to title and last leaf, shelfmark(?) removed from title (leaving a small abraded area), pp. viii, 248, 4to, modern quarter green buckram, marbled boards, by Weeks & Co., backstrip sunned, black morocco lettering-piece, small gilt U of L stamp to front board, bookplate of Dr Sydney Ross, good (ESTC N16284) £600

William Hales (1747-1831), a fellow of Trinity College, Dublin, was a professor of oriental languages but wrote mostly on Newtonian physics, theology, chronology, and mathematics. The present work is his analysis of equations, which earned praise from Lagrange. This copy belonged to Dr Sydney Ross, emeritus professor of Colloid Science at RPI and researcher in the history of science.

67. Hamilton (Alexander) A Treatise on the Management of Female Complaints, and of Children in early Infancy. Edinburgh: Peter Hill, 1792, FIRST EDITION, ownership inscription to title of James Stitt (1795), pp. xx, 549, 8vo, contemporary quarter calf with vellum corners, rebacked, backstrip panelled with gilt rules, red morocco lettering-piece, boards a little rubbed, small modern booklabel to front pastedown, old small ink inscription of James Rowan to front board, good (ESTC T117281; Wellcome III, 202)

Alexander Hamilton (1739-1802) was Professor of Midwifery at the University of Edinburgh and a successful practitioner and writer on midwifery. He was the author of a number of treatises on the theory and practice of midwifery and on the treatment of the diseases of women and infants. In the same year an edition came out in New York, the first book on the subject printed in the United States. An Irish surgeon named James Stitt is recorded as marrying in 1796; he may have been the first owner of this copy.

68. Handley (James) Mechanical Essays on the Animal Oeconomy: wherein, Not only the Conduct of Nature, in Animal Secretion, but Sensation, and Human Generation, are distinctly consider'd and anatomically explain'd: as also The particular Manner of the Operation of a Medicine is accounted for, and many other curious and uncommon Subjects are treated of. Necessary for all that study Nature, and particularly those that make Physick or Surgery their Practice ... Printed for A.

Bettesworth, 1721, FIRST EDITION, a little spotting, light dampmark in gutter at end, old ownership inscription on title, pp. [xxviii], 158, 157-187, 186-201, 208-425, [15] (as called for), 8vo, contemporary calf, boards with double gilt fillet border, unlettered backstrip with five raised bands between double gilt fillets, somewhat rubbed and scratched, backstrip ends reinforced, a spot of wear to one board foreedge, later ownership inscription to front flyleaf, good (ESTC T62853) £500

An interesting work by the surgeon James Handley, of St Albans, author of the well-known *Colloquia chirurgica*; or, the whole art of surgery epitomiz'd and made easie, according to modern practice (first edition 1710, the fifth in 1743). Topics include blood, urine, reproduction, the brain, various drugs (opium, emetics, diuretics, etc.), diseases from catarrhs to gonorrhoea, and various foods, from bread and butter to tea and wine, and treatments including leeches and the dung of different animals, along with a refutation of the efficacy of the 'Royal Touch'. The author also debunks Gascoigne's Powder, and sundry other foolish notions.

# Unsurpassed plates, hand-coloured by the author

69. Harris (Moses) The Aurelian: or, Natural History of English Insects; namely, Moths and Butterflies. Together with the plants on which they feed ... and their standard names, as given and established by the ... Society of Aurelians. Drawn, engraved and coloured, from the natural Subjects themselves. For the Author, 1766, and, with great Additions, for J. Robson, 1778, English and French titles, and text in English and French in double-columns, English title with engraved vignette, frontispiece, hand-coloured engraved diagrammatic key-plate and 44 plates numbered I-XLIV, by and after Harris, Plate I inscribed by the author/artist 'Colour'd by me Mr. Harris Sept. 1778', indicating that the plates were coloured by the author throughout, occasional very light spotting and offsetting, several leaves and plates with tears in the lower margins, not affecting text or image, ff. [iii, twin titles and Table], pp. [iv-] xv, 90, folio, nineteenth-century half brown morocco, pinkish pebble-grained cloth sides, spine gilt and blind tooled on either side of the raised bands, lettered direct, top edges gilt, front inner hinge cracked at top and bottom, extremities rubbed, very slight warping of the boards, good (BM (NH) II, p.788; Lisney 232; Nissen ZBI 1835; ESTC N21994) £11,000

Second edition, second issue. A good, fresh, tall copy of this beautiful and famous book by 'one of the most outstanding authors of entomological literature during the eighteenth century' (Lisney). Harris drew from live specimens and his plates are amongst the most beautiful of their kind, showing dorsal and ventral views of all the subjects, together with various stages of development (egg, caterpillar, chrysalis), each with their preferred food. First published in 1766, *The Aurelian* went through many editions. This has led to a complex bibliography, and, as Lisney notes, it 'frequently occur[s] as made-up copies'. In this copy, Plate I is without the dedication, plate II is not mounted and appears on matching length paper, and the text and plates are on undated Whatman laid paper.

'Moses Harris did much to encourage entomology at a time when the original dynamism of the age of Ray and the first Aurelian Society was waning. He was probably the prime mover in founding the second Aurelian Society ... and in the unsurpassed plates of The Aurelian he left a timeless classic to future generations' (see Salmon, *The Aurelian Legacy* (2000) pp.115-17).



Item 69

70. Harris (Walter) De Morbis Acutis Infantum. Samuel Smith, 1689, FIRST EDITION, with final advertisement leaf, imprimatur leaf present but cut down, old front endpaper mostly clipped (neatly, leaving an old purchase note with price 0l.-6s.-5d.), a little soiling, esp. to final leaf, last two leaves with a minor tear in gutter, ownership inscription to title margin (trimmed: of John Tolnay?, Chirurg., 173-) and to initial blank of Richard Drinkwater, Jr., Surgeon, 1753 (prob. of Chichester), errata corrected in an old hand, pp. [xvi], 146, [2], 8vo, calf antique, boards

panelled in blind, backstrip with five raised bands, morocco lettering-piece in second compartment, the remainder with central floral blind tools, new endpapers, good (ESTC R17057; Wing H880; Wellcome III 213; Garrison-Morton 6321; Norman 994) £3,000

The most significant work, very scarce in first edition, by the London physician Walter Harris (1647-1732), who served as physician-in-ordinary to Charles II and William and Mary (attending the latter's death from smallpox). Harris was a fellow of New College, Oxford, but studied medicine in France after converting to Roman Catholicism. When he renounced that faith a few years later it was a great boon to his medical career in England, and he shortly afterward became a fellow of the Royal College of Physicians and received his first royal appointment in 1683. He published works on theology and Dutch gardens as well as on medicine.

This treatise, on acute diseases in infants, was both popular and influential, being translated into English at least twice (the first time by William Cockburn in 1693) and reprinted half a dozen times in the eighteenth century. It was also translated into French and German, and remained the standard paediatric monograph for the next century. 'Harris addressed the difficulties of diagnosing and treating young patients; he also estimated the effect of heredity on disease in children and the importance of correct diet in infancy. He was particularly concerned about the noxious effects of childhood acidosis, attributing the aetiology of various digestive troubles to intestinal acid' (ODNB).

## The Universal Family Cook

71. Henderson (William Augustus) The Housekeeper's Instructor; or, Universal Family Cook ... Containing Proper Directions for Dressing all Kinds of Butcher's Meat ... The Whole Art of Confectionary, Pickling, Preserving, &c ... Proper Rules For Brewing Malt Liquor ... The Complete Art of Carving ... Together with directions for marketing, and the management of the kitchen and fruit-garden ... The Fifth Edition. Printed and Sold by W. and J. Stratford, [1795], engraved frontispiece (showing a kitchen interior with a lady presenting her servant with this very book), and 11 engraved plates, 2 folding, piece torn from one of the folding plates with the loss of part of the imprint and the title, frontispiece and title slightly foxed, MS recipe on rear flyleaf for 'Southamton [sic] Drops', pp. 456, [24,



Index, Directions to the Binder (not strictly followed here) and list of Subscribers], 8vo, contemporary sheep, worn, rebacked, book-plate of Barbara Child, sound (ESTC T127430) £700

First published probably in 1790, the *Universal Family Cook* (as it is usually referred to) went through a great many editions, only some of them dated. From the fifth edition onwards there is an edition statement, but there does not seem to be any edition between the first and the fifth. The fifth was published in parts, and an advertisement for this issuance, in the single copy recorded in ESTC, is bound in a copy of the *Critical Review* of 1795. All these edition statements are probably just a marketing ploy. The bibliography

is further complicated by the fact that there are two paginations, one as above and another of only 448 pages (e.g. Cagle 739, also the fifth edition!), and these vary randomly between the editions.

The work is quite as 'ample' as is claimed on the title-page, of which only something like a third is transcribed above. This issue with 'bills of fare for every month in the year' in the title in capitals and the imprint address is 'Holborn-Hill.'

72. Henry (William Charles) A Biographical Account of the late Dr. Henry. Manchester: F. Looney, 1837, FIRST EDITION, inscribed on the front flyleaf 'Dr. Faraday with the Author's respects, 'pp. 45, small 4to, uncut in contemporary cloth, spine letered in gilt, rebacked, rear endpapers new, trace of a book-plate inside the front cover, inner hinge strengthened with a strip of paper, on the text block side forming a stub to which the flyleaf has been attached, ink stamp of Glasgow University Chemical Library on title verso and lower blank margin of final page, good £400

William Henry (1774-1836) was a prominent scientist in Manchester at the end of the eighteenth century and in the early years of the nineteenth: this biography is by his son William Charles. He worked at an exciting time when the foundations of modern chemistry were being laid by Priestley, Lavoisier, Gay-Lussac, Davy and Dalton. If he did not stand in the first rank of the scientists of his age, he was close behind them. His experiments with hydrogen chloride were sufficient to explain its chemical constitution but it was Davy in 1810 who took the prize. Henry's work on gases might easily have led him to formulate the law that when gases react they do so in simple proportions by volume but it was Gay-Lussac who grasped this truth ... Henry's work is still commemorated in Henry's Law and his textbook *The Elements of Experimental Chemistry* (London, 1827) influenced a generation of chemists in the first part of the nineteenth century.

Although Faraday was an FRS, and FRSE, he never received a Doctorate: but as he was not infreqently addressed as 'Sir Michael' (see Frank James in ODNB), it is not surprising to find him here addressed as Dr.

73. Hippocrates. De humoribus purgandis liber et de diaeta acutorum libri tres cum commentariis integris Ludovici Dureti ... Accessit constitutio prima libri secundi Epidemion cum ejusdem auctoris interpretatione. P. Girardetus ... emendavit, in ordinem disribuit [sic], ac primum in lucem protulit; iterum recensuit, emendavit ... Justus Godofredus Günz. Leipzig: [Breitkopf] for Heirs of Lankisch, 1745, title printed in red and black, text in various sizes of Greek and Roman and occasional blackletter (German) type, woodcut head- and tail-pieces, old repair to short tear in lower margin of last (errata) leaf, pp. [lii], 444, [16], 8vo, contemporary half calf, drab paper sides, attractive sponge marbled edges, a trifle worn, very good (Bruni Celli 1904; Wellcome III p. 270)

First edition of Günz's recension of these Hippocratic texts, adding his own glosses to those of his illustrious predecessors, the whole preceded by a lengthy historical and bibliographical Dedication. Günz was himself a noted book collector as well as a distinguished surgeon. The text is an impressive example of typography, juggling Greek texts of just a couple of words to several pages, commentary, and footnotes sometimes very extended.



Item 74

# Complicated molecules, including Penicillin and Vitamin B12 Hodgkin (Dorothy Mary Crowfoot) Collection of 8 Offprints, 3 of them inscribed

74. (see below). [Various places and publishers,] 1949-64, FIRST EDITIONS, offprints from various journals, very good £1,750

In 1964, having been proposed at least twice previously, Crowfoot was awarded the Nobel prize for chemistry, only the third woman to be so distinguished after Marie Curie and her daughter Irène Joliot-Curie, and the fifth woman to win any science Nobel.

List of offprints: most of the papers have multiple authors, but just the titles are given here, and all have collations as called for and are in the original wrappers. All but two have ink stamped numbers on the front, and in addition an alphanumeric reference in biro. From the collection of Jack Dunitz.

I. 'X-Ray Crystallography and Sertol Structure,' from Vitamins and Hormones, II, 1944; first page loose though not apparently torn out.

II. 'The crystal structure of cholesterol iodide,' PRS, 184A, 1945. 'With Carlisle she solved the complete three-dimensional structure of cholesterol iodide, including all the bond lengths and angles. This was the first crystallographic study she had pursued to its conclusion, and the first anywhere of such a complex organic molecule' (ODNB).

III. 'Structure of Calciferol,' reprinted from Nature, 162, October 16, 1948.

IV. 'X-Ray crystallographic studies of compounds of biochemical interest,' reprinted from *Annual Review of Biochemistry*, 1948.

V. 'The X-ray crystallographic investigation of the structure of penicillin,' from *The Chemistry of Penicillin*, ed. H. T. Clarke, J. R. Johnson, and R. Robinson, 1949. 'Separate offprints of individual chapters are not available from the publishers.' Inscribed 'For Jack [Dunitz] with Greetings, Barbara [Rogers-Low] (one of the co-authors), '49.'

'In collaboration with Charles Bunn and Anne Turner-Jones at ICI's Northwich laboratories, who analysed the sodium salt using the 'fly's eye' method of modelling diffraction patterns, they solved the penicillin structure by 1945. With the help of the scientific computing service run by L. J. Comrie, they calculated the complete three-dimensional structure on a Hollerith punched card calculator, one of the earliest examples of crystallographic computing. News of the success gradually leaked out into the crystallographic community: what had begun as wartime secrecy continued after VE-day as commercial secrecy to protect the interests of the US firms who had undertaken the mass production of the drug, and the penicillin structure was not formally published until 1949' (ODNB).

VI. 'Structure of Vitamin B12,' reprinted from Nature, 178, July 14, 1956.

VII. 'The structure of vitamin B12. I. An outline of the crystallographic investigation of vitamin B12,' reprinted without change of pagination from the PRS, A, 242, inscribed 'with best wishes, Dorothy.'

'In 1948 Lester Smith of Glaxo gave her some dark red crystals of the anti-pernicious anaemia factor, vitamin B12. Soon afterwards the Glaxo chemists told her that the factor contained cobalt, which was heavy enough to show up on the Patterson maps that were Dorothy's preferred approach to structure analysis and could therefore help to solve the problem of phase determination. With a series of assistants, principally her student Jenny Pickworth (later Jenny Glusker), she embarked on a solution of the structure. At the same time Alexander Todd and his colleagues in Cambridge were working on a chemical analysis of the vitamin, whose formula was unknown. From Todd's laboratory Dorothy obtained a crystal of a cobalt-containing fragment of B12, the hexacarboxylic acid, that made it possible to elucidate the inner core of this complex molecule' (ODNB).

VIII. 'The X-Ray analysis of complicated molecules.' Reprint from *Les Prix Nobel en 1964*, Stockholm, pp. 22, diagrams in text, original printed card wrappers.

#### The Himalayas explored

75. Hooker (Joseph Dalton) Himalayan Journals; or, Notes of a Naturalist in Bengal, the Sikkim and Nepal Himalayas, the Khasia Mountains, &c. In two volumes. John Murray, 1854, FIRST EDITION, 12 coloured and tinted lithographed plates, one folding and skilfully repaired at the fold, 80 engraved illustrations, tear to the list of illustrations in vol.ii neatly repaired, occasional light foxing, pp. xxvii, 408; x, 487, 8vo, original maroon cloth, the backstrips blind stamped and lettered in gilt (sunned as usual), the sides with outer blind borders and central gilt scene on upper covers, corners knocked, good (Abbey Travel 502)

On 11 November 1847 Hooker left England for his three year long Himalayan expedition; he would be the first European to collect plants in the Himalayas. He received free passage on HMS Sidon, to the Nile and then travelled overland to Suez where he boarded a ship to India. He arrived in Calcutta on 12 January 1848, then travelled by elephant to Mirzapur, up the Ganges by boat to Siliguri and overland to Darjeeling, arriving on 16 April 1848. He explored Sikkim, and also surveyed parts of eastern Nepal. The accuracy of his record of the passes into Tibet was commended by Younghusband's expedition fifty years later. His observations on the geology and meteorology of Sikkim remain fundamental, as does his explanation of the terracing of mountain valleys by the formation of glacial lakes. His overriding passion for botanical research (inherited from his father) led to the collection of seven thousand species in India and Nepal. It is that, and his close friendship with Darwin, with whom he had a lifelong correspondence, for which he will perhaps be best remembered. He began the craze for rhododendrons, adding twenty-five new species to those known, and was successful in introducing the splendid rhododendrons of Sikkim into cultivation.

## 'The first international flight'

76. Jeffries (John) A Narrative of the Two Aerial Voyages of Doctor Jeffries with Mons. Blanchard: with meteorological observations and remarks ... Presented to the Royal Society, April 14, 1785; and read before them, January, 1786. Printed for the Author; and sold by I. Robson, 1786, FIRST EDITION, stipple engraved portrait frontispiece by Caroline Watson after F. Russell, and one engraved plate, parts of text in French, stab holes (from original issuance in wrappers) in inner margins, not affecting text, pp. 60, 4to, contemporary tree calf, roll-tooled borders on sides, spine gilt in compartments, red lettering-piece, fine (ESTC T10668; Garrison-Morton 2137.2) £4,000



'The first flight by a physician, the first crossing of the English Channel by balloon, and the first international flight' (G-M), a slightly quaint way of ordering the list of important 'firsts' accomplished on these voyages. Using an array of instruments, Jeffries took measurements of temperature, air pressure and humidity, with details given here. The frontispiece depicts Jeffries at the moment when, approaching the coast of France, and beneath the plane of the French cliffs, he found the barometer falling, indicating a lucky ascent.

77. Keill (James) The anatomy of the humane body abridg'd: or, a short and full view of all the parts of the body. Together with their several uses, drawn from their compositions and structures. Printed for William Keblewite, 1703, a little bit of light staining in the margins, pp. [xii], 335, [1], 12mo, contemporary Cambridge-style panelled calf, attractive (but slightly defective) red lettering-piece on spine, extremities worn, joints cracked but cords firm, old pen scribble on title-page, ownership inscription at top of fly leaf: 'E libris Jacobi Skipper Coll. Cor. Xti [i.e.

Corpus Christi College], 1706', and and later armorial book-plate inside front cover of the Shadwell Court Library, good (ESTC N1262) £300

A crisp copy of the second edition (first 1698) which has important additions: in this edition 'Keill revised the text based on his iatro-mechanical reading and his anatomical experience. He introduced in this work his concept of secretion, based on the velocity of the blood, which he envisaged as a congeries of particles. In different parts of the body the differing speed of the blood's flow would cause its constituent particles to cohere into larger particles of differing sizes, which would then pass through appropriately-sized orifices into the correct gland' (ODNB).

78. **Kitchiner (William)** The Economy of the Eyes: precepts of the improvement and preservation of the sight. *Printed for Hurst, Robinson, & Co., 1824,* FIRST EDITION, engraved folding frontispiece and one other plate (small dampstain to margins), a few minor spots elsewhere, pp. viii, 246, [2], 8vo, entirely untrimmed in original blue paper boards, sometime skilfully rebacked to style with grey paper, preserving original printed backstrip label, corners a touch worn, paper slightly soiled, very good £200

William Kitchiner (1778-1827) wrote popular books on a variety of subjects, but most substantially on cookery, music, and optics. This book deals primarily with different kinds of glasses, including spectacles for short-sightedness, opera glasses, and reading glasses, though there is also a section on his invented 'pancreatic eye-tube', a continuously-focusing telescope. Advertised at the end is a 'second volume' of this work, though that part (not included here), was published separately in 1825, deals entirely with astronomical telescopes, and could more accurately be considered a follow-on from his 1815 *Practical Observations on Telescopes* than an extension of this work on sight.

79. La Beaume (Michael) Observations on the Properties of the Air-Pump Vapour Bath, in the cure of Gout, Rheumatism, Palsy, &c. with occasional remarks on the efficacy of Galvanism, in disorders of the Stomach, Liver, and Bowels, with some new and remarkable cases. Second edition greatly enlarged. Printed by F. Warr, 1819, PRESENTATION COPY, verso of front flyleaf inscribed 'Lord Selsey from the author', half-title discarded, just a touch of faint browning, pp. 10, [2], xii, [13]-275, 12mo, contemporary straight-grained blue morocco, boards with a wide frame of blind fillets inside a triple gilt fillet, backstrip with four wide raised bands, red morocco lettering-piece, the other compartments filled with elaborate gilt tools, marbled edges and endpapers, the joints and corners slightly rubbed, very good (Wellcome III p. 423)

An attractively bound presentation copy of the 'medical galvanist' Michael La Beaume's enlarged account of two somewhat 'alternative' medical treatments: the air-pump vapourbath, which combined vacuum cupping with a steam bath, and Galvanism, in which the affected part was submerged in a water-bath imbued with a mild electrical current. La Beaume records the efficacy of these methods for a wide variety of afflictions, and was sufficiently successful at either treatment or self-promotion (or both) that in 1831 he was appointed Medical Galvinist and Electrician in Ordinary to the King. The Lord Selsey to whom the book was presented was Henry John Peachey, 3rd Baron Selsey (1787-1838), a Captain in the Royal Navy.

80. Laplace (Pierre-Simon) Oeuvres de Laplace. Paris: Imprimerie Royale, 1843-47, FIRST COLLECTED EDITION, 7 vols. bound in 4, 1 folding plate, halftitles, pp. [vi], xv, 420; [iv], xvi, 440; [viii], xix, 381; [iv], xxxix, 552; [vi], v, 540, [2]; [iv], vii, 479; [iv], cxcv, 691, 4to, contemporary calf, two lettering-pieces on each spine, covers ruled in gilt, marbled endpapers, bright yellow edges, joints repaired, rear joint of first and second volume starting, extremities rubbed, good £2,800

The works reprinted here, *Traité de mécanique céleste* (Vols. 1-5), *Exposition du système du monde* (Vol. 6), *Théorie analytique des probabilités* and *Essai philosophique sur les probabilités* (Vol. 7) represent Laplace's epoch-making work on mathematics, probability, and celestial mechanics. This edition was



published at the instigation of Laplace's widow and was financed by the government of King Louis Philippe.

The foundation of modern theoretical astronomy, the *Traité de mécanique céleste* has been called 'the eighteenth-century Almagest' and 'a sequel to Newton's *Principia*' (Horblit 63). Its non-technical summary, *Exposition du système du monde*, is one of the most successful popularizations of science ever composed. The *Essai Philosophique sur les Probabilités* is the popular introduction to Laplace's masterpiece on mathematical probability theory, the *Théorie analytique des Probabilités*. 'The *Essai* has certainly had a longer life and almost certainly a larger number of readers than any of Laplace's other writings. The reason for its continuing – indeed, its growing – success has clearly been the importance that probability, statistics, and stochastic analysis have increasingly assumed in science, social science, and philosophy of science' (DSB).

81. Le Grand (Antoine) Dissertatio de carentia sensus & cognitionis in brutis. J. Martyn, 1675, FIRST EDITION, (published in Lyons in the same year, later at Nuremberg), complete with the initial blank, pp. [xii], 206, [10], 12mo, contemporary panelled calf, head of spine and corners worn, very good (ESTC R30497)

£350

An exposition of the Cartesian side of the Man-Machine debate. 'Le Grand, whose books were recommended for study at Oxford and Cambridge, was an important link in the transmission of Cartesian ideas and their popularization in England. He is also interesting as showing that a Roman Catholic priest could occupy an influential position in English intellectual life even at a time when persecution was by no means over. His life and work link the two worlds of Catholic recusancy and the new philosophy of the later seventeenth century' (ODNB).

82. Lister (Joseph) On the Coagulation of the Blood. The Croonian Lecture delivered before the Royal Society of London, 11th June 1863. From the Proceedings of the Royal Society. Taylor & Francis, 1863, FIRST EDITION, 6 illustrations in the text, pp. [ii], 31, 8vo, stitched as issued, traces of a pink wrapper at spine, vertical crease where folded for posting, embossed stamp of Yorkshire College and cancelled ink stamp of Leeds University Library on title page, the embossed stamp also on two other leaves, inscribed 'With the author's respects' in Lister's hand. £1,000

Author's presentation copy of the rare offprint issue. Joseph Lister, regarded as the founder of the antiseptic system of surgery, was Professor of Surgery at Glasgow, Edinburgh, and at King's College, London. Lister's discovery of antiseptics was developed from his studies on the coagulation of the blood. In his Croonian Lecture to the Royal Society of London he demonstrated that by carrying out the strictest precautions he could keep blood free from putrefaction indefinitely. This supported his theory that bacteria were the cause of wound suppuration.

### Richard Rawlinson's copy

Lombardo (Giovanni Francesco) Synopsis 83. [in Greek] eorum, quae de balneis, aliisque miraculis Puteolanis scripta sunt. Adjectis balneis Aenariarum, necnon locis obscurioribus non inutilibus scholiis. Opus ab auctore denuo recognitum, & locupletatum. Venice: [Girolamo Scoto] impensis Anelli Sanuiti : venundantur Neapoli apud Antonium Baccolum, 1566, Second edition, with Scoto's device on the title, a number of attractive woodcut initials, title slightly browned and dampstained and occasional browning or spotting elsewhere, pp. [viii], 128 (i. e. 120), [15], 4to, eighteenth-century mottled calf, single gilt



fillet around sides, spine gilt in compartments, red lettering pieces, joints cracked, armorial book-plate inside front cover of Richard Rawlinson, good (CNCE 30537; Durling 2841; Bruni celli 2667) £1,250

First published in Naples in 1559, this is a literary handbook to the thermal springs of southern Italy, and evidently useful since it was reprinted in Frankfurt in 1600, and in Leiden in 1723, by Van der Aa. It includes the *Balneandorum canones* of Franciscus Aretinus (i. e. Francesco Accolti), the *Aenariarum Balnea* of Joannes Elysius (i.e. Giovanni Battista Elisio) and, added to this edition, Latin verse renderings by Lombardi of Galen's *Quos, quibus, et quando purgare oporteat*, Hippocrates' *Jusjurandum* (The Oath), and the *Regimen sanitatis Salernitanum*.' There are five indexes, including one of the ailments that can be treated by bathing.

Richard Rawlinson (1690-1755), topographer and bishop of the nonjuring Church of England, began in 1720 a tour of the Continent, visiting the Netherlands, France, Germany, Italy, Sicily, and Malta; he matriculated at Padua University in 1722 and spent many months resident in Rome. He kept a diary of his tour, which survives among his

manuscripts in the Bodleian Library (MS Rawlinson D. 1179-87). 'Rawlinson took as his episcopal motto "I collect and I preserve", words which accurately reflect his consuming passion, the love of collecting inspired by his conviction that materials must be acquired and preserved for future generations. Before he went abroad in 1719 his collections were small, but in the course of his travels he acquired not only books and manuscripts but also coins, medals, seals, and miscellaneous curiosities.' (ODNB). See also the article on Rawlinson by B.J. Enright in *The Book Collector*, vol. 39, 1990, pp. 27-54.

84. Lucretius. De Rerum Natura libri vi. [Florence: Philippo Giunti, 1512], four leaves bound out of order (g4-5 and h4-5 swapped), first and last three leaves foxed, the first and last dusty and spotted as well, a few spots elsewhere, small paper repair to corner and ownership stamp of Ernest Kopke to first leaf, ff. [viii], CXXV, [13], 8vo, modern plain limp vellum, leather ties, good (Gordon 5; CNCE 28723; Adams L1649)

The fifth textual edition of Lucretius, and the first after the incunable period. The editor was Pietro Candido, who, according to W.E. Leonard, based his text on the 1500 first Aldine but collated Florentine manuscripts himself, as well as accepting many conjectures of Marullus. Candido eulogises Michael Tarchionata Marullus (d. 1500) in the Preface to this edition, and it is said that an annotated copy of Lucretius was found on Marullus's body after his death. The frequency with which Marullus conjectured was disparaged by Scaliger and Vettori, who argued for the supremacy of (any) manuscript readings, and later studies have suggested that Marullus's notes were simply stylistic exercises rather than intended emendations; nevertheless, a number of the corrections introduced here were successful. As a result the text was the best yet seen and was not bettered until Lambinus's work in the 1560s.

85. Lucretius. [De Rerum Natura.] [Venice: In aedibus Aldi, et Andreae soceri, 1515], blank leaf \*8 discarded, the leaves very gently washed, ff. 99 and 101 numbered 98 and 107 respectively (as in 'some copies', according to Gordon), ff. [vii], 125, [3], 8vo, early nineteenth-century neoclassical dark blue long-grained morocco, the base of the backstrip with gilt stamp of P. Bozerian le jeune, the boards with an outside frame of double gilt fillets, between them a chain of linking gilt rings, backstrip with five small raised bands between thick gilt fillets, second and third compartments gilt-lettered direct, the rest with central flower tools, marbled endpapers, turnins decorated with a gilt Greek key roll, a.e.g., binder's ticket of Derome le jeune sometime affixed to front pastedown, a small line of insect damage at base of front joint, the backstrip a touch sunned, very good (Gordon 6; CNCE 37499; Adams L1651; Dibdin II 198)

The sixth textual edition of Lucretius, edited by Andrea Navagero, and the second to be printed by the Aldine Press. It improves substantially the text of the 1500 first Aldine, though in terms of its greater textual significance it was not a large step beyond the 1512 Giunta. 'The second Aldine edition ... is greatly preferable in a critical point of view to its precursor' (Dibdin).

The tasteful and attractive binding is by the younger Bozerian, the finest French binder of the early nineteenth century; it has his characteristic gilt-work and his invariable gilt

stamp at the foot of the spine. The front pastedown also has the binder's ticket of the younger Derome, the finest French binder of the eighteenth century; this may have been preserved from an earlier binding or may have simply been attached by an owner for his own reasons.

86. Lucretius. Of the Nature of Things, in six books. Illustrated with proper and useful notes. Adorned with copper-plates, curiously engraved by Guernier, and others. In two volumes. Printed for Daniel Browne, 1743, FIRST EDITION of this translation, folding engraved frontispiece and 6 folding plates, title-pages printed in red and black, text in facing pages of Latin and English, some toning and spotting, a closed and neatly repaired tear to title in vol. i, ownership inscription of J.H. Thompson, St John's Coll., Oxford, 1775, to initial blanks, pp. xxii, [ii], 287, [9]; [ii], 331, [5], 8vo, modern polished dark brown goatskin, backstrip with five raised bands, slightly clumsy mauve lettering-pieces in second compartments, front hinge of vol. i cracking, good (ESTC T49793; Gordon 502B; Moss II 289)

The Oxford History of Literary Translation in English (1660-1790) calls this anonymous version of the De Rerum Natura 'the first translation of the poem into English prose' as well as 'the first to take as its sole criterion of success utter scientific accuracy'. However, against the latter point, the preface in fact claims to treat Lucretius solely as a Latin stylist and apologises for the excessively un-Christian nature of the content, referring to 'that ridiculous Doctrine of the Epicurean Philosophers, concerning their Atoms, or minute indivisible Corpuscles ... An Opinion so absurd, that only to mention it is to confute it.'

87. Manilius (Marcus) Astronomicon ex recensione et cum notis Richardi Bentleii. Henry Woodfall for Paul and Isaac Vaillant, 1739, FIRST BENTLEY EDITION, engraved (by Vertue) portrait frontispiece and a folding engraved plate of the marble globe in the Palazzo Farnese in Rome, engraved arms at head of dedication, plates browned, first page of text (opposite folding plate) soiled and with paper strip at top edge, the latter repeated on three other leaves, pp. xvi, 307, [5], 4to, late eighteenth-century tree calf, gilt roll tooled borders on sides, rebacked and recornered in light brown morocco, good (ESTC T165913; Houzeau & Lancaster 1037)

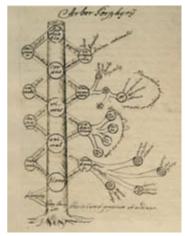
First edition of Bentley's edition of Manilius, his last published work although it had been one of the first classical editions he attempted. In the preface to his *Phalaris* (1699) Bentley records that he had 'had prepared a Manilius for the press, which had been published already, had not the dearness of paper and the want of good types, and some other occasions, hindered.' It was some forty years later that he would entrust the manuscript to his nephew to be printed, and the result displays all his usual brilliance and recklessness, while being 'in elegance of type and paper ... superior to any of Bentley's other books' (Monk, ii 397).

Housman praised this edition highly: 'his Manilius is a greater work than either the Horace or the Phalaris ... Had Bentley never edited Manilius, Nicolaus Heinsius would be the foremost critic of Latin poetry ... Great as was Scaliger's achievement it is yet surpassed and far surpassed by Bentley's ... it is significant that Scaliger accomplished most in the easiest parts of the poem and Bentley in the hardest' (pref. to *Manilius* vol. i, 1903).

Philosophy for Augustinian Hermits

88. (Manuscript.) Philosophia Magni Aurelia Augustini ab Aegidio Columna Romano interpretata a Patre Nicolao Gavardi in Romana sapienta Magistro dilucidata ... praelecta vero a Fratre Feliciano Ullmann Eremita Augustiniano. [Bohemia], 1746, manuscript in ink on paper in a neat cursive hand, with five diagrams in the text, ff. 270, 4to, contemporary mottled calf, spine richly gilt, red edges, a little worn but still very good £1,500

Written by Felicianus Ullmann, a monk in the order of Augustinian Hermits, this manuscript is an adaptation of Nicolo Gavardi's course of philosopy based on the writings of Aegidius of Colonna (c.1245-1316), 'Doctor fundatissimus'. A pupil of Thomas Aquinas, he became Prior General of the



Augustinian Order, whose monks were required to study his writings. In the seventeenth century Nicolo Gavardi (1640-1715) wrote a course of philosophy, including the basics of astronomy and physics, based on the work of Aegidius, and this was used, as exemplified here, by the Augustinian Hermits. This copy is dedicated to the Bohemian nobleman Vinzenz Ferrerius von Waldstein-Wartenberg. Three of the diagrams illustrate the planetary systems of Ptolemy, Tycho, and Copernicus, and another is a Porphyrian Tree. The text is prefaced by a history of the Waldstein family.

89. (Manuscript.) [Receipt Book, Culinary, Medical and Household. *England, c.1820-45,] manuscript in ink in a pocket account book, columns ruled in red,* pp. [46] plus blanks, 8vo, *original limp roan, good* £300

An attractive Receipt Book written by a woman of fairly humble status (certainly none of the sources are titled ladies) and probably of an evangelical turn – one receipt is from the *Cottager's Monthly Visitor*. There are 34 medical receipts, including nipple salve, 14 of cookery, including two for mead, mushroom ketchup and damson cheese, 6 domestic and 5 veterinary. The text is a little more discursive than is usually the case, and was written over a period of time in a regular copper-plate, the last receipt in a shaky hand dated June 1845.

90. Marshall (William) The rural Economy of the Midland Counties; including the Management of Livestock in Leicestershire and its Environs: together with Minutes on Agriculture and Planting in the District of the Midland Station. [Two volumes in one]. Dublin: J. Moore, 1793, First Irish Edition, pp. [viii], 280; [viii] 287, [1], 8, 8vo, contemporary tree calf, backstrip ruled in gilt, red morocco lettering-piece, headcap weak, corners knocked, nick to lower joint, good (ESTC T207325; Fussell II, p. 118; cf. Perkins 1151)

The fourth of six ambitious works in which Marshall single-handedly attempted an agricultural survey of the whole of England. It was in these volumes that Marshall first

proposed the establishment of a Board of Agriculture, a plan that was carried out the year this Dublin edition was printed. The Dublin edition of this title is scarce.

91. Maxwell (James Clerk) On Action at a Distance. Royal Institution of Great Britain, Weekly Evening Meeting, February 21, 1873. [1873], FIRST EDITION, an offprint, pp. 11, 8vo, sewn as issued, self-wrappers, very good £750

One of Maxwell's rare forays into the philosophy of physics. 'In "On action at a distance", Maxwell observed that some forces in nature seem to act at a distance from separate centers, for example, gravity, while other forces seem to act through an intervening medium, for example, the expanding circles produced when a stone is tossed into a pond. He also observed that the two kinds of forces each served in programs in which physicists attempted to explain away the other kind of force. Maxwell joined the partisans of contiguous action because it seemed to him more 'philosophical,' more scientific: 'Why then should we not admit that the familiar mode of communicating motion by pushing and pulling with our hands is the type and exemplification of all action between bodies, even in cases in which we can observe nothing between the bodies which appears to take part in the action?' (J. Turner, Maxwell on the Logic of Dynamical Explanation, Philosophy of Science 23 (1956), p. 45).

'The English Method of Practice is equal, if not superior to any in Europe'

92. Mihles (Samuel) The Elements of Surgery. In which are contained all the essential and necessary Principles of the Art ... Adapted to the Use of the Camp and Navy, as well as of the Domestic Surgeon ... The Second Edition, altered and considerably augmented with several of the latest Improvements in Practice and Operations by Alexander Reid. For Robert Horsfield, 1764, 18 folding engraved plates showing surgical equipment, bandages and leg amputation, with contemporary ownership inscription inside the front cover by 'T. Baker Junr. 1768', listing another medical work, and with his neat ink stamp at the foot of the title, and one manuscript annotation in the same hand on p. 135, some foxing, pp. [xiii], 368, [8], (index), 4, 8vo, contemporary sprinkled calf, neatly rebacked in style, the backstrip panelled with gilt fillets, maroon morocco lettering-piece, the sides with single gilt fillet borders, good (ESTC N9144; Wellcome IV, 133)

Mihles' text was first published in 1746; Reid's edition is a great advance: his alterations and augmentations are enumerated in his preface. The work is in question and answer form, as being best suited to students. At the end is an early, four-page proposal relating to Smallpox: 'Proposals for a Subscription to support a plan for inoculating persons in private apartments, at a moderate expense' put forward by Reid, who was Assistant Surgeon to Chelsea Hospital. This proposal is endorsed by leading medical men, including William Hunter, Pringle, Ranby (to whom Reid dedicates this edition), Samuel Sharp (to whom Reid declares an especial debt, quoting him at some length), &c.

93. Millington (John) An Epitome of the Elementary Principles of Natural and Experimental Philosophy. Part the first [All Published]. Comprehending the general properties of matter, mechanics, pneumatics, acoustics, hydrostatics, hydraulics, and a copious account of the invention, progress, and present state of the steam

engine. Printed for and sold by the author; 1823, FIRST EDITION, hand-coloured lithographed frontispiece, 13 folding lithographed plates, scant foxing of final leaves, pp. vii, 358, 8vo, half tan calf by Carrs & Coy, Glasgow, backstrip divided by gilt low bands into six compartments, morocco lettering-piece in second, remainder with centrally placed gilt thistle tool and tulip cornerpieces, linen texture cloth sides with gilt stamped motif of Glasgow High School on upper board, marbled edges and endpapers, Glasgow High School bookplate, good £250

By the time John Millington (1779-1868) published the present work in 1823, he had already jointly edited the *Quarterly Journal of Science*, written papers on street illumination and hydraulic rams, obtained a patent for a ship's propeller, and established the Hammersmith Iron Works. Millington had proposed a second volume, but when he emigrated to the United States in 1829, the project was shelved. Instead, the engineer worked on his eight-volume *Elements of Civil Engineering* (published 1839) which helped establish him as a key figure in the history of American engineering.

### Biblical weights and measures

94. Montanus (Benedictus Arias) Thubal-cain, sive, de mesuris sacris. Liber voluminibus distincus. De Cubito. De Satho. De Siclo. Antwerp: Christopher Plantin, 1572, Plantin's large woodcut device on the title, scattered rustmarks on the second leaf, two single wormholes through upper blank corners, rectangular engraving of seals etc. on the last leaf signed 'Philipp. Gal.', pp. 23 [i.e. 19], folio, modern marbled boards, cream backstrip, good (Adams M1663; cf. Darlow & Moule 1422) £750

Benedictus Arias Montanus (1527-98), or Benito Arias Montano, was general editor of the Plantin Polyglot Bible of 1569-72, and one of the most learned oriental scholars of his time. After studying at Alcala, he joined the Benedictine order and in 1562 accompanied the Bishop of Segovia to the Council of Trent. From his retirement in Aracena he was summoned by the King to edit the Polyglot Bible, and, as a result, produced the work above. It is a study of biblical weights and measures extracted from the Antwerp Polyglot, once more printed by the famous Antwerp printer, Plantin.

95. Montmahou (Etienne S. de) Manuel médico-légal des Poisons, précédé de considérations sur l'Empoisonnement; des moyens de le constater; du résultat d'expériences faites sur l'acétate de morphine et les autres alcalis végétaux. Suivi d'une Méthode de traiter les Morsures des Animaux ... Paris: chez Compère Jeune, 1824, 20 hand-coloured engraved plates, the majority of poisonous plants but including a rabid dog, snake, and 5 of mushrooms, half-title with ownership signature, a little dampstaining towards the end, endpapers slightly browned, pp. xv, 376, 16mo, contemporary half calf, flat backstrip with gilt fillets and black morocco lettering-piece, sound

A useful manual on poisons including properties and treatments.

96. More (Henry) Epistola ... ad V.C. quæ apologiam complectitur pro Cartesio, quæque introductionis loco esse poterit ad universam philosophiam Cartesianam. *J. Flesher,* 1665, FIRST SEPARATE EDITION, woodcut diagram in text, perforated stamp to title

(John Crerar Library) and other marks of this provenance, some damp staining, pp. [ii], 45, 8vo, modern calf-backed marbled boards, sound (ESTC R32118) £950

Although entitled 'an introduction to the whole of Cartesian philosophy', and ostensibly a defence of Descartes against accusations of atheism, the work marks the beginning of More's opposition to mechanistic materialism which later led to his attack on Boyle's hydrostatics.

Born at Grantham, the site of Newton's schooldays, More knew Newton well at Cambridge. It has long been suspected that the young Newton was much influenced by More and his friends ... Koyré has argued that More gave 'to the new science' ... some of the most important elements of its metaphysical foundations. Two such ideas are echoed in much of Newton's thought. One was his claim, against the Cartesians, of the existence of an infinite void space. More also objected to the mechanical world of the Cartesians in which bodies moved only under the impact of other bodies' (Gjertsen, Newton Handbook, 369-70). It was Newton's belief in an infinite void which led him to the concept of action at a distance.

The work was originally published as an appendix to More's *Epistolae quatuor ad Renatum Des Cartes* in *A collection of several philosophical writings* (1662). 'V.C.' has traditionally been identified as the physician, controversial writer and poet William Coward (1657-1725), but other scholars believe that the work is more likely addressed to a Continental correspondent.

# R.E. Lloyd's copy

97. Morgan (Thomas Hunt) The Physical Basis of Heredity. Philadelphia and London: J.B. Lippincot Company, [1919], FIRST EDITION, 117 illustrations of which 9 are photographic plates, the rest in the text, pp. 305, 8vo, original plum cloth, a trifle worn at extremities, R.E. Lloyd's copy with his signature dated 1921 inside front cover, surrounded by annotations which are continued on the two flyleaves, one page of text with notes, very good £150

An important work by the Nobel Prize winning geneticist and embryologist. The notes by Richard Ernest Lloyd, author of *What is Adaptation?* and other works, are rather dismissive.

## The first book on a mechanical calculating machine in English

98. Morland (Sir Samuel) The description and use of two arithmetick instruments together with a short treatise, explaining and demonstrating the ordinary operations of arithmetick, as likewise a perpetual almanack and several useful tables. *Printed, and are to be sold by Moses Pitt, 1673*, FIRST EDITION, with 6 engraved plates labelled A-G and 1-6 printed on verso of A2-7 and 4 folding engraved plates labelled A-D pasted to the blank versos of A8 and B1-3, and with a folding table bound between G2 and G3, occasional browning and spotting, old repaired tear on f. 4 of first B signature affecting a few letters but not the sense, pp. [1, portrait], [1, title page], [1, additional title page, in different type setting, A new and most useful instrument for addition and subtraction of pounds, shillings, pence, and farthings ... invented ... 1666 by S. Morland, and ... made publick, 1672], 37 (leaves A2-8, B1-3 and C6



Item 98

not paged on recto, C2 not paged on verso), [1], 39-45, [1], 47, 50, [2], 49-78, [14], 5, [27], 16, small 8vo, [Collation: portrait, A-F8 (-F8), G8 (-G8), A-B8, \*8, folding table], modern period-style sheep, covers and spine ruled in gilt and with red label on spine (by Bernard Middleton), Michel Chasles's copy, bound retaining original front wrapper of Chasles's binding with 'S. Morland 1673' written on the recto in Chasles's hand and bearing his bookplate on the verso with the inscription 'acheté a la vente Chasles Samedi 9 Juillet 1881', (Wing M27777; ESTC R30529; Macclesfield 1451 (with F8 but lacking the first four leaves of the second A signature); Origins of Cyberspace 9 (lacking F8); BL (two copies, one lacking F8, the other lacking the portrait); Taylor 358)

The first book on a mechanical calculating machine in English, preceded only by the 18-page pamphlet in which Pascal described the machine he constructed around 1642 (only two copies known). This book may thus be regarded as the first obtainable work in computer literature.

This book is bibliographically complex. All copies we have seen, or seen described, lack G8 (usually described as a cancel). Most also lack F8, blank except for what appears to be a numerical calculation on the verso; this is also a cancel: in the copy of the book offered in Jeremy Norman's Catalogue 23, F8 was present and slit. There are also two issues: the first (represented by BL 1607/5037) has the 6 plates of the adding machine printed on slips of paper pasted on the versos of leaves A2-7 of the first A signature; the other,

represented by the present copy, has these plates printed directly onto the blank versos of A2-7. A further difference is that in the first issue the second A signature, containing 'An explanation of the perpetual almanack,' contains 11 leaves and in the second issue only 8, but both issues have the same text on 15 printed pages.

(See Dickinson, Sir Samuel Morland, Diplomat and Inventor, 1625-1695, 1970; Catalogue de la Bibliothèque scientifique, historique et littéraire de feu M. Michel Chasles, 1881).

# Betony - the cure for 47 diseases: and the earliest Herbarium

99. Musa (Antonio) De herba vetonica liber I. L. Apulei De medicaminibus herbarum liber I. Per Gabrielem Humelbergium ... recogniti & emendati, adiu[n]cto commentariolo eiusdem. [Zurich: C. Froschouer, 1537], woodcut printer's device on title, one large and numerous small attractive woodcut initials, blank strip of 35mm excised from foot of title and renewed, last four leaves a little wormed in the top margins, the holes filled in, pp. [viii], 303, [27, Index], small 4to, eighteenth-century German mottled calf, spine gilt in compartments, recased and with late nineteenth-century marbled endleaves, repairs to head of spine, a little rubbed, notes in a late seventeenth-century hand in two places referring to later works on the relevant topic, good (Adams B2679, erroneously catalogued under Brasavola; Durling 3319; Hunt 40; Wellcome 4491)

'First edition of Hummelberger's editing of these two classics. Some authorities [e.g. Durling] believe that the *De Herba Vetonica* [that is, Betony], though generally ascribed to Musa, was in reality written at a much later date. 'The Herbarium of Apuleius Barbarus has an important place in the history of botany and medicine because of its age, and its wide distribution in manuscript form from about the 6th or 7th century ... important because in the course of its career it served as a gathering point for the interpolation of additional knowledge' (*Hunt Botanical Catalogue*).

# 'Let others try the Experiment, and judge.'

100. Newton (Sir Isaac) A Particular Answer of Mr Isaac Newton to Mr Linus his Letter printed in Numb. 121, about an Experiment relating to the New Doctrine of Light and Colours. March 25. 1676. The Contents. The preface to this Eleventh Year. [...] [John Martyn], March 25, 1676, FIRST EDITION, contained in Philosophical Transactions, Numb.123, with 2 woodcut figures, light toning, first and last leaves lightly spotted, pp. 551-574 within the entire number (pp. 551-74), 4to, disbound, contained in a modern cloth-backed card folder, good (Gray 231 #17; Babson 169; Wallis 231(15))

Newton stepped onto the scientific stage with the publication of his theory of light and colour in issue 80 of the Royal Society's *Philosophical Transactions* in 1672, shortly after his election as a member of the Society. Though Newton's theory was correct, the publication attracted significant critical attention from Hooke and Huygens, among others. The fuss was sufficient to cause the reclusive scientist to ask to be withdrawn from the Society's rolls, though in the end this was not granted.

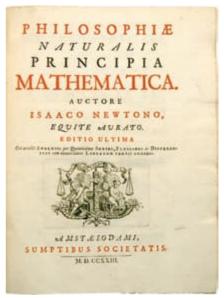
After a few years had passed and Hooke and the rest of the Royal Society had come around to his theory, Newton re-emerged, only to face further criticism from Father

Linus, an English Jesuit priest in Liège. While visiting the Royal Society in 1675, Newton saw a letter from Linus which was later published in *PT* 121; in it Linus claims that the experiments Newton had done did not work as he described.

His first full response to Linus's criticism was published here: a single sentence had appeared in PT 110, and an only slightly longer response offering to perform the experiment himself for the Society in PT 121, in which issue Linus's letter was itself published. Newton's growing irritation is clear, and he begins with the simple assertion that readers should try the experiment for themselves. He then goes on to address the other points raised one-by-one, citing his letters on the subject in previous issues of PT, and providing more details about the arrangement of the prism experiment. This was not sufficient for Linus and his students, however, and Newton was forced to reassert himself through nearly half a dozen letters before his frustration reached the tipping point and he refused to receive any further communication from Liège.

Most of Newton's contributions to *PT* were not published elsewhere until very recently; after this issue, nearly 300 years elapsed before his letter saw print again, in Cohen & Schofield's *Isaac Newton's Papers & Letters on Natural Philosophy*, 1958. The issue, here present in its entirety, also contains the editor's preface, extracts from letters by Cassini on lunar eclipses, and reviews of books, including Wallis's edition of Archimedes' *Arenarius* and Sydenham's *Observationes medicae*.

101. Newton (Sir Isaac) Philosophiae naturalis principia mathematica. Editio ultima. Cui accessit Analysis per quantitatum series, fluxiones ac differentias cum enumeratione linearum tertii ordinis. Amsterdam: Sumptibus Societatis, 1723, title printed in red and black and with engraved vignette, and three engraved plates, two folding, pp. [xxviii], 484, [7], [xii], 107, 4to, contemporary calf, spine richly gilt in copmartments with a central tool featuring a pair of doves, red letteringpiece, marbled endpapers, a little rubbed, bookplate 'Ex Bibliotheca Domini de Raymond comitis' on front paste-down, ownership inscription on verso of flyleaf masked by paper slips, very good (Gray 12; Wallis 12) £11,000



Second Amsterdam reprint of the second edition of the *Principia*, which

had appeared in London in 1713 and was reprinted at Amsterdam the following year. Edited by Roger Cotes, the second edition includes a substantial number of the number of changes including the propositions on the resistance of fluids, the lunar theory, the precession of the equinoxes, and the theory of comets. Cotes's Preface contains a strong attack against Cartesian physics in general and the vortex theory of planetary motion in particular.

The present edition is the first to contain the important 'Analysis per quantitatum series, fluxiones, ac differentias,' originally published by William Jones in 1711. The 'Analysis' is Newton's first independent treatise on higher mathematics, and contains his first account of one of his three great contributions to science, the invention of calculus. It contains 'De analysi per aequationes numero terminorum infinitas' (written in 1669); two treatises first published in the Opticks (1704) but written in 1693 and 1695; 'Methodus differentialis' (written in 1676 and expanded in 1710); and a letter from Newton to Collins, written November 8th, 1676.

102. Newton (Sir Isaac) Philosophiae naturalis principia mathematica. Editio tertia aucta & emendata. William and John Innys, 1726, engraved frontispiece portrait, engraved illustration by John Senex on p. 506, and woodcut diagrams in text, halftitle very slightly soiled, otherwise clean and fresh, pp. [xxxii], 530, [8, Index and Privilege], 4to, contemporary blind-ruled speckled calf, neatly rebacked, spine gilt. red lettering-piece, marbled paste-downs, very good (Babson 13; Gray 9; Wallis 9; ESTC T98375) £15,000

> The third edition contains the definitive text. the basis for all subsequent editions. It was edited by Henry Pemberton and by Newton himself, in the form that Newton himself approved. This edition contains a new preface by Newton, together with extensive alterations (the most notable being to the scholium on fluxions) and additions such



as a new section on the motion of the moon's nodes. It is the first to contain the engraved portrait of Newton by Vertue after Vanderbank. This copy is one of 1,000 printed on ordinary (but still good) paper; there were a further 200 large paper copies and 50 largest paper copies on thick paper.

103. Newton (Sir Isaac) Opuscula mathematica, philosophica et philologia. Collegit partímque Latinè vertit ac recensuit Joh. Castillioneus Jurisconsultus. [Three volumes]. Lausanne & Geneva: Marc-Michel Bousquet, 1744, titles printed in red and black and with engraved title vignettes of two putti surrounding a medallion portrait of Newton, 64 engraved plates, 2 folding tables, arithmetical exercises and tables in the text, decorative head- and tailpieces, pp. xxxviii, 420; viii, 423, (1 blank); vi, 566, [2], 4to, near-contemporary marbled boards, the backstrips ruled in gilt with red labels and gilt lettering, slightly rubbed, corners bumped, good (Babson 9; Gray pp. 2-4; Wallis 2)

First collected edition of the mathematical, philosophical and philological treatises by Isaac Newton (1642-1727), one of the greatest scientists, if not the greatest, who ever lived (ODNB). Comprising separate works or essays which are arranged according to subjects,

the first volume contains Newton's mathematical essays, illustrated with 28 folding engraved plates. The philosophical treatises to which the second volume is devoted mainly consist of Newton's *Optical Lectures*, which were originally delivered in Latin at Cambridge in 1669, 1670, and 1771, and first published at London in 1729. They are richly illustrated with 28 folding engraved plates, and teach on all aspects of the falling and breaking of light, perspective and colours. These lectures laid the basis for modern science and for the science of art or perspective. The third volume then contains Newton's philological works, mainly historical essays, including a chronicle of ancient history, illustrated with 4 folding engraved plans of ancient holy places. Initially the collected works were planned for eight volumes, but the present three volumes of Newton's *Opuscula* are complete in themselves and mostly found separate. These three volumes [were]... collected and edited by Giovanni Francesco Salvemini, called Castillionaeus, who supplied a Preface and life of Newton. They are a fine piece of bookmaking' (Babson).

104. Newton (Sir Isaac) Philosophiae naturalis principia mathematica. Perpetuis
Commetariis illustrata, communi studio PP. Thomae Le Seur & Francisci Jacquier
... Editio altera longe accuratior & emendatior. Tomus primus [-tertius]. Cologne:
for C. and A. Philibert, 1760, 3 vols. bound in 2, vols. i and ii together, title of first
vol. printed in red and black, numerous diagrams in the text, browned in places, pp.
xxxii, 548; [viii], 422; [viii], xxviii, 703, 4to, contemporary calf, rubbed and worn,
rebacked rather plainly, cracks in joints, William J. Conybeare's copy, given to him
by his father upon the Trinity College Cambridge Greek Testament prize in 1834
(lengthy inscription on flyleaf), and given by him in turn to his son in 1894, sound
(Babson 31; Wallis 14)

Second so-called 'Jesuits' edition' (Le Seur and Jacquier were in fact Minims), much esteemed for its commentary. It contains Newton's Dedication to the Royal Society, the prefaces to the first, second, and third editions, and Roger Cote's preface. The *Principia* text is that of the third edition (1726). Also included are works by Bernoulli, MacLaurin, and Euler explaining tidal motion in relation to the theory of gravity.

William John Conybeare (1815-1857), the son of the geologist William Daniel Conybeare, was a clergyman, reviewer and novelist.

105. Newton (Sir Isaac) Mathematical Principles of Natural Philosophy. Book the First [all published]. Translated into English, and illustrated with a Commentary, by Robert Thorp. The second edition. Printed by A. Strahan for T. Cadell Jun. and W. Davies, 1802, 22 folding engraved plates, some dampstaining, mainly marginal throughout, usually pale but a little more pronounced in places, pp. [iv], [xv-] lviii, [ii], 360, the last leaf a cancel, 4to, nineteenth-century half calf and marbled boards, flat spine gilt tooled on either side of the raised bands, skilfully rebacked and recornered, new labels, stamp of Melchet Court, Romsey on flyleaf with initial A circled by a crown in the centre, a few mathematical notes in the margins, good (Wallis 29)

Thorp's translation had appeared in 1777, the sheets here reissued with a new title-page and omitting the Dedication and the list of subscribers, hence the erratic pagination of the preliminaries. The cancel leaf at the end alters the name of the printer (A. as opposed to W. Strahan). Though based on Motte's translation, I.B. Cohen, in his reprint of the

Thorp translation (1969) calls it notably improved and amended, and further, 'for anyone wishing to follow Newton's reasoning and to comprehend this great treatise on its own terms, there is no better work in English. [Both Thorp editions] are extremely rare.'

Thorp was was educated at Durham School and Peterhouse, Cambridge, graduating BA in 1758 as senior wrangler, MA in 1761, and DD in 1792, and was elected fellow in 1761, and went on to fill various ecclesiastical posts: on the title-page here he is Archdeacon of Northumberland.

106. Nicholson (William) An Introduction to Natural Philosophy. Illustrated with copper plates. [Two volumes.] *J. Johnson, 1782*, FIRST EDITION, *25 folding engraved plates showing a wide variety of experiments, equipment and scientific information, half-titles, offsetting*, pp. xx, 383, [12]; xi, (1), 441, [14], 8vo, contemporary tree calf, the backstrips panelled in gilt, red and black morocco lettering-pieces, the joints and corners of vol. i neatly repaired, good (ESTC T59466)

William Nicholson (1753-1815) was a mathematics teacher and author. This was his first work under his own name in which he extended the traditional natural philosophy curriculum into the fields of chemistry and the practical arts. The book became popular as an introductory text for students, reaching a fifth edition in 1805.

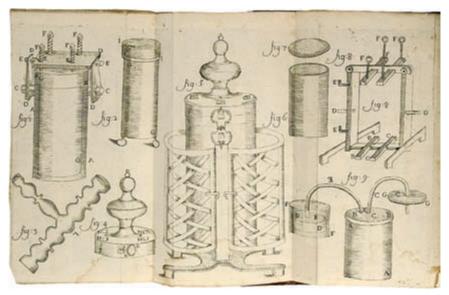
In 1784, at Wedgwood's suggestion, Nicholson was appointed secretary of the General Chamber of Manufacturers of Great Britain. In November 1784 he became one of the secretaries of the Coffee House Philosophical Society. In this group Nicholson associated with some of the leading members of the London scientific community, including J. H. de Magellan (who proposed him for membership), Wedgwood, Richard Kirwan, Tiberius Cavallo, and Adair Crawford. The provincial honorary members included Joseph Priestley, James Watt, and James Keir from the Birmingham Lunar Society. Many of the discussions touched upon chemistry, particularly that of the new gases, or 'airs', recently discovered by Priestley and others.

Nicholson's most significant accomplishment, performed with the surgeon Anthony Carlisle in May 1800, was the use of current from a voltaic cell to decompose water into its constituent gases, hydrogen and oxygen (ODNB).

107. Paget (Sir James) Lectures on Surgical Pathology, Delivered at the Royal College of Surgeons of England. *Philadelphia: Lindsay & Blakiston, 1854*, FIRST AMERICAN EDITION, (first, London, 1853), some foxing, pp. xv, 699, [4, advertisements], large 8vo, original sheep, some wear and abrasions, backstrip darkened, short split in lower joint, good £150

'Appointed Arris and Gale lecturer at the Royal College of Surgeons from 1847 to 1852, Paget carried out research in the Hunterian Museum of the college and then delivered a series of lectures in pathology. He published these as *Lectures on Surgical Pathology* (2 vols., 1853), and the next generation credited Paget with reviving, thereby, the neglected study of pathology' (ODNB).

Not in Wellcome, nor is any American edition. The condition of this copy, though leaving something to be desired, is above average for a typical American textbooks of the time.



Item 108

# The Air-Pump and the Pressure Cooker

108. Papin (Denis) A Continuation of the New Digester of Bones: It's [sic] improvements and new uses it hath been applyed to, both for sea and land. Together with some Improvements and new Uses of the Air-Pump, tryed both in England and in Italy. Printed by Joseph Streater, 1687, FIRST EDITION, advertisement leaf discarded, two folding plates (one cropped at bottom), some spotting and soiling, intermittent dampmarking in lower margin, some light browning, pp. [viii], 123, [1], 4to, [bound before:]

Pain (Denis) A New Digester or Engine for Softning Bones, containing the description of its make and use in these particulars: viz. cookery, voyages at sea, confectionary, making of drinks, chymistry, and dying. Printed by J.M. for Henry Bonwicke. 1681, FIRST EDITION, one folding plate (short splits at two folds), spotted and somewhat browned, some headlines cropped, final blank discarded, margin of last leaf stained, pp. [viii], 54, 4to, original calf, front board showing old scratches and scrapes, rebacked, bookplate of the Institute of Naval Architects, sound (ESTC R24444, R17820; Wing P309, P308)

Papin's famous Digester, what we now call the pressure cooker, was a by-product of his experiments with the air-pump, which commenced with Huygens in Paris, continued with Boyle in London, and again in Venice with Ambrosio Sarotti. Papin's first investigations were published in *Nouvelles expéience du vuide* (Paris 1674), and his collaboration with Boyle in the latter's second continuation of *Spring and Weight of Air* (1680). About two thirds of the present *Continuation* are taken up with new experiments with the air-pump, and an account of the experiments in Venice: these last do not appear to have published elsewhere, and of the book as a whole a French translation of 1688 is its only other appearance. Papin, referring to his work of 1674, says: 'as these little Works

are subject to be lost being not usual to reprint them;' which is good testament to the rarity of that particular volume. The present *Continuation* is also scarce, the only copies having appeared at auction in the last 30 years being the Honeyman and Macclesfield examples.

109. Paris (John Ayrton) A Treatise on Diet: with a view to establish ... a system of rules, for the prevention and cure of the diseases incident to a disordered state of the digestive functions. Second edition. Printed for Thomas & George Underwood, 1827, a few leaves with a touch of soiling, pp. viii, 405, 2 [ads.], 8vo, contemporary half black roan with marbled boards, backstrip divided by a gilt roll between double gilt fillets, second compartment gilt-lettered direct, the rest with central gilt decorative lozenge tools, a touch of wear to corners and board edges, paper a bit scuffed, bookplate of Charles Henry Christopher Moller, very good £150

The second edition of Paris's comprehensive study of nutrition and dietetics, which followed shortly after the first of 1826. It is some hundred pages longer, though this is mostly due to a new larger and more attractive typeface. The work was well-received – the *Monthly Review* said of the first edition that 'we are happy to see a sensible and popular essay on the subject, at last put forth by a scientific man' – and saw a number of further editions.

# Measures are the rule of justice, which ought never to vary ...

110. Paucton (M. [Alexis-Jean-Pierre]) Métrologie ou traité des mesures poids et monnoies des ansciens Peuples & des Modernes. Paris: Chez la Veuve Desaint, 1780, FIRSTEDITION half-title, title-page publisher device, woodcut head and tailpieces, numerous tables and charts on letterpress, near-contemporary marginalia on pp. 837/38, pp. xv, [1] (contents), 949, [1] (errata), 6 (see note), 4to, modern quarter tan calf, backstrip with five raised bands between double blind rules, red morocco lettering-piece in second (bracketed by double gilt rules), remainder empty but gilt dated at foot, brown linen sides, marbled edges, very good (Kress B305; Goldsmiths' 11963; Ebert 15993)

An exhaustive, comprehensive work divided into thirteen chapters and described, by Gibbon, as 'useful and laborious.' Paucton was ably assisted in his endeavours by de la Lande and Tillet, and produced a study that was to be cited as definitive by scientists, economists, and politicians the world over. In his diary, John Quincy Adams commented that 'Paucton and the Metrologie primitive still engross all my leisure. I have been for years uncertain of the exact comparison between the length of the French and, English foot; which is yet essential to ascertain that of all the new French weights, measures, and coins.'

Includes, on the final 6 pages, legal documents concerning the publication of this work, and the agreement between Paucton and the Veuve de Desaint.

### Printed by a Blackwell

111. Peacock (Thomas) The Practical Measurer: containing the uses of logarithms, Gunter's scale, the carpenter's rule, and the sliding rule: the best and most approved modes of drawing geometrical figures: the doctrine of plane trigonometry, and its

application to heights and distances: the mensuration of superficies, solids, and the artificers' work: and the methods of surveying, planning, and dividing land. The whole illustrated with a great variety of examples and figures, adapted to the capacities of young scholars, and suited to real business. The Third edition, very much enlarged, altered, and improved. Newcastle: Printed at the Courant Office by J. Blackwell and Co., 1832, With 11 folding lithographed plates by W.E. and H. Mitchell of Newcastle, pp. [iv], 258, 8vo, contemporary half calf over marbled boards, slightly worn, but a very nice, fresh copy, book-label inside front cover of the Rev. Joseph Edleston, a graduate of Trinity College, Cambridge, very good £275

First published in 1789 and reissued without change in 1810, the text is here quite considerably altered, and the number of examples increased, as the author is at pains to point out in the Preface. The earlier editions are recorded in multiple copies in ESTC and COPAC, but this edition at Newcastle only.

The Rev. Edleston was vicar of Gainsford, County Durham: he was still alive in 1893, as he appears in a photograph on the website thehistoryofgainsford.com, resplendent in a top hat and a rather wild beard.

112. Piccolomini (Alessandro) La prima parte dele theoriche o vero speculationi dei pianeti. Venice: Giovanni Varisco & Compagni, 1558, FIRST EDITION, woodcut printer's device on title and recto of last leaf, woodcut initials, 38 half-page woodcut diagrams in the text, ff. [10], 62, [2], small 4to, old vellum over boards, lettering discernable on spine, probably impressed through a label now missing, good (Adams P1119; Riccardi I (2) 272-73; CNCE 40234)

A treatise on cosmography and astronomy, by the Sienese prelate and man of letters, Alessandro Piccolomini, later Archbishop of Patras. Dedicated to Cosimo de Medici, it was intended as a complement to Piccolomini's work on geography and cartography, *Della Grandezza della Terra e dell'Acqua*, also published in 1558.

113. Piso (Nicolaus) De cognoscendis et cvrandis praecipve internis humani corpis morbis libri tres ... Accessit & de Febribus liber vnus. Cum indice rerum et verborum copiosiss. Frankfurt: Andreas Wechel, 1580, FIRST EDITION, title with large woodcut printer's device and engraved portrait of the author on the verso, woodcut head- and tail-peces and large initials to each book, printer's device on the last leaf, a little browned and with the odd spot or stain here and there, segment at fore-edge of leaf Ciii sometime torn out and carefully replaced, pp. [xvi], 477, [12], folio, modern mottled calf rather tightly sewn, the backstrip panelled and ruled in gilt with five raised bands, red morocco lettering-piece, florid ownership inscription c. 1700 on title of Fran. Max. Mertlich, his monogram repeated at several points in the preliminaries, one marginal note in this hand, later inscription at head of title of James C. Burnett, M.B., at Vienna, 1869, good (Adams P1310; Durling 2298; Hirsch III, 67; VD16 L 1278)

The most important work of Nicolas le Pois (1527-90). In republishing the work in 1736, Boerhaave recomended it as in truth an entire library of medicine, containing everything that was good from all authors up to the middle of the sixteenth century. The 1585 reprint by Wechel's heirs is commoner.

114. Pitcairn[e] (Archibald) Elementa medicinae physico-mathematica, libris duobus ... William Innys, 1717, FIRST EDITION, some faint water-staining confined to the lower portion of leaves, pp. [xlii], 285, [19], 8vo, contemporary speckled calf, single gilt fillet around sides, good (Wellcome IV p. 394; ESTC T84387) £1,200

Several times reprinted and translated, the text is the substance of Pitcairn's lectures at Leiden, which had a considerable influence both in Britain and on the Continent. Inspired by Harvey and Borelli, Pitcairn was a devoted adherent of the iatromechanical school of medicine. Amongst his pupils were Richard Mead and Herman Boerhaave.

When he died in 1713 Pitcairn left 'numerous debts, far outnumbering his assets, which amounted to his library. His book collection was well known and it sold in London for £430, destined for the court of Peter the Great in Russia' (ODNB).

# **Delights for Ladies**

115. [Plat (Sir Hugh)?] A Closet for Ladies and Gentlewomen, or, The Art of Preserving, Conserving, and Candying. With the manner how to make divers kindes of Syrups, and all kinds of Banqueting-stuff: also divers Soveraign-Medicines and Salves. Corrected, Amended and Enlarged, by adding a very useful Table thereunto. By R.W., 1654, manuscript notes of Sarah Booth, Lyme, dated 1814, on the recto of the first title, the verso of the last leaf and the final blank, first blank discarded, A11 with foremargin cropped close touching ruled border, a little lightstaining and minor soiling, some edges brittle and with small chips, one or two corner tips restored, pp. [xxii], 84, 12mo,

[bound with]:

[Plat (Sir Hugh)] Delights for Ladies, to adorn their Persons, Closets and Distillatories: with Beauties, Banquets, Perfumes and Waters, [s.p.], 1654, pp. [190], later calf, nibbled at joints, later maroon morocco lettering-piece, good (Wing C4370, ESTC R214916; Wing P2382, ESTC R214917; Oxford p.13; Bitting p. 373) £3,500

These small, early, cookery books are scarce in the early editions, use made them so. The book collector Juel-Jensen, who compiled a handlist of Plat's printed works (*Book Collector*, 1959), said of his *Delightes for Ladies* that although it was an Elizabethan best-seller, it was 'elusive' (*Book Collector*, 1966, p. 155). He managed to collect, with finely honed skills, eleven editions in the post-war years, including the very scarce 1600 first printing.

The second work is divided into four parts: The Art of Preserving, Secrets in Distillation, Cookery and Huswifery, and Sweety Oweders, Oyntments, Beauties &c.

116. Plot (Robert) The Natural History of Oxford-shire, Being an essay toward the natural history of England. Oxford: Printed at the Theater, [1677], FIRST EDITION, SIR THOMAS MOLYNEUX'S COPY, issue without date on title-page, imprimatur leaf not present, folding map and 16 plates, engraving on title-page, the undated title page with the date 1676 added in ink at the foot in a contemporary hand, signed at the head of the text by Sir Thomas Molyneux, the map with a small tear at the mount and a little wear to the impression, pp. [x], 358, [12], folio, contemporary sprinkled calf,

rebacked and neatly repaired, with original backstrip relaid, raised bands, gilt rosettes at centre, the central panel with Sir Thomas Molyneux's cypher in gilt on a morocco label, sides with double blind fillet border, slightly scuffed, speckled edges, good (Clary 1431; Cordeaux and Merry Oxfordshire 4; Madan 3130; Wing P2585; ESTC R473650) £1,500

Sir Thomas Molyneux's tall clean copy of this significant history of Oxfordshire, without the initial imprimatur leaf giving the title and date, presumably discarded by the binder. The fragmentary Press accounts show that 750 copies were printed. 'Plot was the first Keeper of the Ashmolean Museum, professor of chemistry, and Secretary of the Royal Society. He belonged to the new scientific school, and in his survey of Oxfordshire, part of a projected but unfulfilled survey of England, he departed from the "antiquarian" tradition of Camden and Leland' (Clary).



Molyneux, physician and natural philosopher, was born in Dublin, and visited England to broaden his studies. He had an successful career which brought him into contact with many of the famous of the day, having correspondence with John Locke and others. From his contributions to the Dublin Philosophical Society it is clear that his expertise ranged far beyond medical interests. He became Regius Professor of Physic in Dublin University in 1711 and wrote the first scientific account of the Irish elk.

#### Revolutionized celestial mechanics

117. Poincaré (Henri) Les méthodes nouvelles de la mécanique céleste. Paris: Gauthier-Villars, 1892-93-99, FIRST EDITION, half-titles browned (offset from acidic flyleaves), pp. [iv], 385; viii, 479; [iv], 414, 8vo, contemporary half blue cloth and marbled boards (boards of vol. iii not uniform, and the whole vol. of slightly larger dimensions), original front printed wrappers mounted on upper boards, good £1,500

Poincaré's epoch-making treatise on the 'three-body problem' (the problem of determining the motion of three bodies under their mutual gravitational attraction). Poincaré's work revolutionized celestial mechanics and introduced the idea of chaos in dynamical systems. Poincaré was 'the mathematician who after Newton did the most remarkable work in celestial mechanics ... Poincaré inaugurated the rigorous treatment of celestial mechanics, in opposition to the semi-empirical computations that had been prevalent before him' (DSB).

'On the occasion of presenting the medal of the Royal Astronomical Society to Poincaré in 1900, George Darwin, in describing *Les Méthodes Nouvelles de la Mécanique Céleste*, said, "It is probable that for half a century to come it will be the mine from which humbler investigators will excavate their materials". Darwin was, however, somewhat conservative in his outlook. Had he omitted the word "half" his prediction would still have been

fulfilled. Since its publication almost a hundred years ago, Poincaré's *Méthodes Nouvelles* has continued to attract and delight mathematicians, providing a rich and varied source for researchers in celestial mechanics and dynamical systems' (Barrow-Green, 'Poincaré and the Three-Body Problem,' AMS, 1997, pp. 151-2).

118. Raffald (Elizabeth) The Experienced Housekeeper, for the use and ease of ladies, housekeepers, cooks &c. written purely from practice: dedicated to the Hon. Lady Elizabeth Warburton, whom the author lately served as housekeeper ... The Tenth Edition. Printed for R. Baldwin, 1786, engraved portrait frontispiece, offset onto title, 3 folding plates, one of a new stove and two of table settings, one or two pen annotations on p. 70, facsimile signature of Raffald on p.1, advertisements, scattered foxmarks, pp. [iv], iii, [1], 384, [16], 8vo, contemporary sheep, rebacked, backstrip with five low raised bands with gilt rules, gilt lettered, corners repaired, a little rubbed, corners worn, new endpapers, sound (ESTC T82673; cf. Cagle 944) £450

This is, perhaps, the most popular cookery book before Mrs. Beeton.

119. Ramazzini (Bernardino) De Morbis Artificum ... Diatriba ... Nunc accedit supplementum ejusdem argumenti, ac Dissertatio de Sacrarum Virginium Valetudine tuenda. Padua: Per Jo. Baptistam Conzattum, 1713, decorative initials, pp. [xvi], 453, [26], 8vo, nineteenth-century dark blue Italian boards, backstrip with green label and gilt lettering, extremities a little rubbed, good (Garrison-Morton 2121)

This, the first comprehensive and systematic treatise on occupational diseases, first appeared in 1700, Modena. 'The revised edition of 1713 was the definitive one, containing many corrections to the first and a supplement of twelve new chapters' (PMM 170).

## All without the help of algebra

120. Rudd (Thomas) Practicall Geometry, in two parts: the first, shewing how to perform the foure species of arithmeticke (viz: addition, substraction [sic], multiplication, and division) together with reduction, and the rule of proportion in figures.

The second, containing a hundred geometricall questions, with their solutions & demonstrations, some of them being performed arithmetically, and others geometrically, yet all without the help of algebra. A worke very necessary for all men, but principally for surveyors of land, engineers, military architects, and all other students in the mathematicks. Imprinted ...by [[ohn] G[rismond] for Robert Boydell, 1650, FIRST EDITION, woodcut diagrams in text, cropping affecting some headlines, catchwords, extreme letters in some diagrams, and page numbers, signature of William Jones on title (cropped), blind Macclesfield armorial stamp on first three leaves, pp. [8], 56; [4], 139, small 4to, old calf boards, rebacked, new endleaves, red edges, good (ESTC R217827)

A rare work devoted to techniques of calculation for practical men. Although the algebraic notation, which would be used to solve such problems today, had been introduced by Descartes more than a decade earlier, it was still unfamiliar to the

architects, engineers and surveyors to whom the work is addressed. The methods used involve the manipulation of geometrical shapes such as triangles, rectangles and circles. Geometrical constructions were used, in effect, as a kind of mechanical calculator, circumventing the need to manipulate numerical quantities directly. Rudd was in the royal service as an engineer for fortifications.

William Jones (1675-1749), tutor to the Earl of Macclesfield, lived at Shirburn Castle and left his large collection of scientific books and manuscripts to the Macclesfield family (the present work was formerly in a tract volume which included a rare Galileianum and another work: the tract volumes in that library, which were bound in the eighteenth century, were typically cropped). Jones is known as the inventor of the symbol '\u03c4' in his *Synopsis palmariorum matheseos* (1706) and was also the editor and publisher of Newton's *Analysis per quantitatum series* (1711).

There was another issue of the book in the same year with a different printer and a minor variation in the title.

121. Santorio (Santorio) De statica medicina et de responsione ad staticomasticem, ars ... aphorismorum sectionibus octo comprehensa. The Hague: A. Vlacq, 1657, with full-page woodcut on p. [xx], some headlines shaved, pp. [xx], 135, [3, blank], 12mo, contemporary English sheep, from the Macclesfield Library, with the usual blind-stamps and bookplates, good (Krivatsy 10238)

A very satisfactory copy of an early edition of a medical classic. *De statica medicina* 'dazzled its contemporaries' (DSB). It had immediate, widespread and long-lasting influence, was translated into the major European languages, and has been in print more or less continuously ever since. The book's reputation suffered in the nineteenth century, but was the subject of important studies in the twentieth. The latest edition was published in 2001. 'Through most of the 17th and 18th centuries Santorio's name was linked with that of Harvey as the greatest figure in physiology and experimental medicine because of his introduction of precision instruments for quantitative studies' (G-M).

Besides the scientific importance of the book, there is considerable human interest in the extraordinary manner in which Santorio achieved the results recorded here. He spent 30 years living in the elaborate weighing machine which he constructed for the purpose, performing all the bodily functions, including venery, by which body weight could be influenced.

122. Santorio (Santorio) De medicina statica aphorismi. Commentaria, notasque addidit A.C. Lorry. Paris: P.G. Cavelier, 1770, FIRST EDITION of Lorry's recension, commentary and notes, with one engraved plate, clean tear in A4 without loss, pp. [iv], xxxvi, 395, 12mo, original French mottled calf, spine gilt, red lettering piece, corners slightly worn, very good (Garrison-Morton 573 for the first edition, 1614, a famous rarity)

'Santorio's great achievement was the introduction of quantitative experimentation into biological science. Undoubtedly inspired by Galileo, Santorio opened the way to a mathematical and experimental analysis of physiological and pathological phenomena' (DSB).

123. Sicard (Roch-Ambroise) Cours d'instruction d'un sourd-muet de naissance, et qui peut etre a l'education de ceux qui entendent et qui parlent ... Seconde edition. Paris: Le Clere ... and London, Charles Prosper 1803, 6 folding plates (with 8 diagrams), pp. lvi, 488, 8vo, original mid-brown marbled sheep, smooth backstrip divided into compartments by diamond and oval rolls, black leather lettering-piece, single ornament in centre of remainder; sides rubbed, considerable wear to leather on upper side, ownership inscription on upper pastedown, inscription inside front cover 'Charlotte Bedingfeld, given me at Ghent, 1820', sound £300

A landmark in the history of teaching the deaf and dumb. The Bedingfield (or Bedingfeld) family, Catholic gentry from Suffolk, earn a collective entry in ODNB: in the eighteenth century various female members were active in education on the Continent, a tradition apparently continued into the nineteenth.

## The Westminster Hospital

124. (Sick and Needy.) A Charitable Proposal for Relieving the Sick and Needy, and other Distressed Persons. [No printer], 1720, Third edition, a poor copy, large wax stain affecting most of the text, all leaves laminated, slight loss to title, signatures cropped, pp. 13, [2], 12mo, nineteenth-century calf, roll tooled borders in blind on sides, rebacked, worn, text followed by 8 pages of manuscript (see below), ducal book plate inside front cover, and small book plate of Henry Power opposite, a large one of his on rear fly leaf, the front fly leaf with the inscription: 'Henry Power, Feby 27th 1894, Sometime asst. surgeon to the Westminster Hospital', sound (ESTC T193161, three copies: the editions of 1716 and 1719 are recorded in a single copy apiece) £500

The poor condition of this little volume is compensated for somewhat by the rarity of it, and more by the manuscript additions at the end. These are a copy of the first report of the Governors of the hospital with a list of those who had been admitted, their ailments, and the outcome of their treatment, in the first year of the hospital's operation. The report is stated to have been framed and glazed and hung up in the Boardroom in 1800. At the front is the following inscription: 'This is one of the original small tracts by the circulation of which the Westminster Hospital was first brought into public notice & the benefits of its plan has since given rise to all the other subscription Hospitals for administering Medical and Surgical aid throughout the British Empire.' This is signed with the initials AC, further identified in pencil as Anthony Carlisle, which would be entirely appropriate:

'Carlisle was a competent surgeon who wrote several papers on surgical topics and introduced a few minor improvements to surgical technique. He had a reputation of occasional casualness with his duties at Westminster Hospital, and was investigated (but exonerated) for three cases of neglect in 1838. He managed to escape the worst of Thomas Wakley's assault in The Lancet (founded in 1823) on the nepotism and incompetence of London hospital surgeons ... He did, however, continue to give lectures on surgery at his hospital, and advocated the systematic collection and publication of hospital statistics. He was actively involved in the rebuilding of the Westminster and published a series of lectures on cholera and other epidemic diseases' (ODNB).

125. Simson (Robert) Apollonii Pergaei locorum planorum libri II restituti. *Glasgow: Foulis, 1749,* FIRST EDITION, *a little foxing*, pp. xviii, 233, [1, errata], 4to, *nineteenth-*

century polished calf, by Carss of Glasgow, single gilt fillet around sides, spine gilt with red lettering-piece, arms of Glasgow University stamped in gilt on both sides, marbled endpapers and edges, a prize binding with presentation bookplate dated 1835 on front pastedown, part of lettering-piece lost, calf partly faded, a little worn at extremities, good (ESTC T147862)

Simson's restitution of Apollonius' lost work on plane loci, founded on the lemmas given in the seventh book of Pappus' Collection. Partial restitutions had been attempted previously by Fermat and Schooten, although Fermat was interested less in a faithful restoration of Apollonius' lost work than in gaining an understanding of his analytical techniques, and Schooten was primarily concerned to demonstrate the power of the new Cartesian methods in solving one of Apollonius' problems.

Robert Simson (1687-1786) was appointed Professor of Mathematics at Glasgow in 1711, and held the post until his retirement in 1761. He devoted his life to the restoration of the 'lost works' of the Greek geometers: in addition to the present work, he gave restitutions of Apollonius' *Determinate Section* and Euclid's *Porisms* (1776). He also prepared an edition of Euclid's *Elements* in 1756 which remained standard until the beginning of the twentieth century.

### The foundation of modern physical diagnosis

126. Skoda (Joseph) Abhandlung über Perkussion und Auskultation. Vienna: J.G. Ritter von Mösle's Wittwe & Braumüller, 1839, FIRST EDITION, a good clean copy, pp. [ii], xviii, 271, [1], 8vo, original black morocco backed marbled boards, a trifle worn, indistinctly blind stamped ownership mark on flyleaf, traces of a label inside front cover, very good (Garrison-Morton 2676; Norman 1953) £1,200

'Probably the greatest master in the science and art of physical diagnosis was Joseph Skoda.... He was the greatest of all the famous clinicians of the new Viennese school of medicine which rose to prominence near the half century mark. Skoda was an intelligent observer and an inspiring teacher who developed an amazing ability to solve obscure diagnostic problems by the adroit use of inspection, palpation, percussion and auscultation.... Skoda's outstanding work *Abhandlung über Percussion und Auskultation* was published in 1839. In this work he reaffirmed Auenbrugger's observations and carried them to a greater degree of refinement and significance. He emphasized the belief that each disease displayed a specific set of signs and insisted that the sounds of percussion depended on the underlying physical conditions and that all observation must be reconciled with the laws of acoustics. Skoda described a tympanitic sound heard on percussing the thorax above the level of a massive pleural effusion or above a pneumonic consolidation, which still today is known as Skoda's sign' (Willius & Dry, *History of the Heart*, pp. 128 and 321).

#### With Directions for Marketing

127. Smith (E, possibly Eliza) The Compleat Housewife: or Accomplish'd Gentlewoman's Companion. Being A Collection of upwards of Six Hundred of the most approved Receipts in Cookery ... To which is added, A Collection of above Three Hundred Family Receipts of Medicines ... . With Directions for Marketing. The fifteenth edition, with additions. *Printed for R. Ware, S. Birt, T. Longman [and Content of the Cooker of the* 

6 others], 1753, with 6 folding engraved plates, first 2 plates missing approximately a third at the top, 3 others with tears at folds, a few spots or stains, [xvi], 396, xii, 8vo, original calf, double gilt fillets on sides, spine gilt ruled on either side of the 5 raised bands, worn at extremities, joints cracked but cords holding, without front free endpaper, armorial book-plate of N.F.R. McGowran inside front cover, sound (ESTC T31011)

A new edition of *The Compleat Housewife* was almost an annual event since its first appearance in 1727. The author (it is far from certain that her first name was Eliza) died in 1732, and the present publishers took over with the 14th edition in 1750: in that edition the Directions for Marketing (i.e. how to select produce in the markets) was first added. Some later editions had a frontispiece, but one is not called for in the present edition.

128. Step (Edward) Favourite Flowers of Garden & Greenhouse. [Edited by W. Watson, the plates selected and arranged by D. Bois] Frederick Warne, [1896], AS ISSUED IN THE ORIGINAL 13 PARTS, 316 fine chromolithographed plates, with printed captions detailing species and size, pp. 691 (continuous pagination), 8vo, original green printed wrappers, each with a inset chromolithographed plate to the front cover, a few edges a little frayed, the backstrip of vol. vii split, one or two other small tears, the parts loosely inserted into the original decorated cloth covers, backstrips gilt, very good (Nissen BBI 1887)

Beautifully illustrated, this work sets out 'to present reliable portraits of the representative or type plants of the principal genera that find favour in horticulture'. Step's text was revised by the Assistant Curator of Kew, W. Watson. Each genus is described and its name explained, the prevailing characteristics are noticed and its horticultural history sketched. In most cases a vertical section of the different parts of the flower, and drawings of the seeds and young seedlings of the species are given for identification and to distinguish them from weeds 'that threaten to destroy them in the seed beds' (Preface).

129. **Stevenson (John)** On the morbid sensibility of the Eye, commonly called Weakness of Sight. [Second edition]. *Samuel Highley, 1811, manuscript remedy for the eye 'a Receipt of Dr. Adams' on the rear free endpaper,* pp. [iv], 108, 8vo, contemporary half calf, rebacked, backstrip gilt-lettered vertically, corners rubbed, bookplate of T. H. Bickerton, sound

Stevenson studied ophthalmic surgery for some time under John Cunningham Saunders and was eventually appointed oculist and aurist to William IV. This was his first work.

130. Stevin (Simon) Les Oeuvres Mathematiques. Le tout reveu [sic], corrigé, & augmenté par Albert Girard. Leiden: Bonaventure & Abraham Elsevier, 1634, Six parts (or two vols.) in one vol., title-page printed in red and black and with large printer's device, numerous woodcut diagrams and illustrations in text, somewhat foxed and browned, heavily in places, pp.[viii], 222, [2], 678, folio, contemporary speckled calf, covers with gilt borders, spine elaborately gilt with red lettering-piece, red



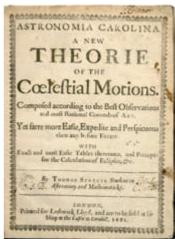
Item 130

speckled edges, rebacked, spine gilt, inscription on title page of P. C. Georges, engineer, stating that the book was given to him in 1800 by the French physician, physiologist, and encyclopaedist Paul Joseph Barthez (1734-1806), (Vagnetti EIIIb4; Bierens de Haan 4584; Willems, 413; Biblioteca Mechanica, pp. 303-304; see also: Dijksterhuis, Simon Stevin)

The first part, pp. 1-222, contains the three text books on arithmetic, which under the title L'Arithmetique de Simon Stevin had first been published by Girard, corrected and enlarged, in 1625. The second part, pp. 1-340, called Cosmographie, consists of three treatises, the first in the French translation of Jean Tuning, published at Leyden in 1605-1608, but here corrected and enlarged by Girard, and the two others, on geography and astronomy, here in the first French translation by Girard, also corrected and enlarged by him. The third part, pp. 341-432, is on practical geometry, and is divided into 6 sub-divisions. The first four, dealing with size, measurement, conjugations of size and proportion, come from *Memoires mathematiques* (1608), but the other two on measuring are here in the first French translation by Girard. The fourth part, pp. 433-520 on weight, statics, balance and hydrostatics is the first French translation, by Girard, of the Vierde Stuck der wisconstighe ghedachtenissen vande weeghconst from 1605-1608. The fifth part, pp. 521-572, treats optics and perspective, and are partly taken and enlarged from the Memoires, and partly newly translated and enlarged by Girard from Stevin's Wisconstige Gedachtenisse. The sixth and last part, pp. 573-678, contains Stevin's treatises on military surveying, his new invention of fortification with the use of locks, both published together in French at Rotterdam and Leyden in 1618, and the French translation of Stercktenbouwing (Fortification), published at Leiden in 1594 and Amsterdam in 1624.

The first printed text in English to discuss Kepler's first and third laws of planetary motion

131. Streete (Thomas) Astronomia Carolina. A new theorie of the coelestial motions. Composed according to the best observations and most rational grounds of art. Yet farre more easie, expedite and perspicuous then any before extant. With exact and most easie tables thereunto, and precepts for the calculation of eclipses, &c. Printed for Lodowick Lloyd, 1661, FIRST EDITION, with woodcut diagrams in the text, title with a few small ink stains and edges a little weak with top outer corner repaired, third leaf a little browned on recto, a few leaves a little spotted, last leaf strengthened at foot and a little frayed at fore-edge, pp. 119, [1], 113 (lacking final blank), small 4to, new blind-ruled sheep (by Bernard Middleton), contemporary ownership



inscription at head of title, Skynner, and an inscription of similar vintage lower down, Wm Blakey, O.S.B.C.A., annotation in the former's hand on p. 80, good (Wing S5953; ESTC R479386 (Clark Library only in USA of this issue); Taylor, Mathematical Practitioners of Tudor & Stuart England 269) £5,000

A rare and important book, 'the first printed text in English to discuss Kepler's first and third laws of planetary motion (alongside Streete's own version of Kepler's second law)' (ODNB). Streete was a heliocentrist, and this 'work of computational astronomy, with extensive tables of planetary positions and motions ... became a standard textbook used well into the eighteenth century. It was consulted, as were Streete's ephemeredes, by Newton [who posessed a copy of the second edition, 1710], Flamsteed and Halley, while Ashmole – and undoubtedly others – also used it to cast horoscopes' (ibid.).

Not much is known about Streete's life. Born in Cork, he was a friend of Halley (who edited the second edition of the present work), Hooke, Huygens and other leading scientists of the time. According to Vincent Wing (*Astronomia Brittanica*, p. 312), Streete, Nicholas Mercator and Huygens (who was then in London) observed the transit of Mercury on 3rd May 1661 at Long Acre. Streete's tables of the moon's motions contained in *Astronomia Carolina* were considered to be the best thus far published. He was one of six men chosen to resurvey London after the Great Fire.

ESTC identifies two issues, one as here with 'farre' in the title, and another with 'far.' In connection with the present issue ESTC also calls for an initial blank, but this is probably in error, since the first gathering A (signed A2 on the second leaf) takes us to page 8.

132. **Taylor (Brook)** Linear Perspective: or, a new method of representing justly all manner of objects as they appear to the eye in all situations. A Work necessary for Painters, Architects, &c. to Judge of, and Regulate Designs by. *Printed for R. Knaplock, 1715, FIRST EDITION, with 18 engraved plates of geometrical diagrams, plates just shaved at fore-edge, water stain to upper outer quarter throughout,* 

pp. [iv], 42, [2, advertisements], [1, errata] (cut down and mounted on rear free endpaper), 8vo, *half blue cloth over marbled boards (c. 1950), sound (ESTC T133789)*£950

Not a particularly attractive copy, but a scarce book. 'Like all Taylor's writing, his book on linear perspective was so concise that Bernoulli characterized it as "abstruse to all and unintelligible to artists for whom it was more especially written" ... Its effect, nevertheless, was very substantial, since it passed through four editions, three translations, and twelve authors who prepared twenty-two editions of extended expositions based on Taylor's concepts. He developed his theory of perspective in a formal and rigorous fashion in a sequence of theorems and proofs. The most outstanding and original of his ideas in this field were his definition and use of vanishing points and vanishing lines for all lines and planes ... Taylor also made free use of the idea of associating infinitely distant points of intersection with parallel lines' (DSB), thereby anticipating projective geometry.

133. Thomas (Richard) Report on a Survey of the Mining District of Cornwall, from Chasewater to Camborne. Printed for John Cary, 1819, FIRST EDITION, 2 folding hand-coloured aquatint cross-sections, the geological view in the second state dated 1824, a touch of spotting and dustsoiling, small library blindstamp to base of title, the folding cross-sections mounted and with a few neat repairs (in the second map occasionally just touching image), pp. 77, [3], 4to, modern navy-blue half long-grained morocco, marbled boards, backstrip with two gilt-hatched raised bands, central long compartment gilt-lettered direct, the others with a small central circular tool, oval blind stamp of Redruth Free Public Library at foot of title, good £1,200

The civil engineer Richard Thomas (1779-1858) produced this report in 1819, along with the included cross-section map, which was very popular and saw several editions on its own (this example being from the second impression). The first map locates the mines between Chasewater and Camborne and gives their depths, while the second shows the cross-courses and inclinations of the lodes. Cornwall is the most important metal mining county in the UK, and has the longest history of continuous production; this report and its maps are an invaluable record of its state in the early nineteenth century, an important time in the development of scientific geology.

Among the three pages of advertisements, one is devoted to Cary's globes, (6 varieties, each available from 21 to 3 inch diameter), and another offers Smith's *Geological Map* in six different formats, including in sheets, with *Memoir*. Also announced is *A New Geological Atlas of England and Wales*, and other geological tables, sections and views.

## Aberdonian algebra

134. [Trail (William)] Elements of Algebra. For the use of students in universities. Third edition. To which is added an appendix. Edinburgh: Printed for W. Creech and C. Elliot, and sold by Mess. Robinsons ...C. Elliot and T. Kay {London}, 1789, with some woodcut diagrams in the text, somewhat untidy mathematical calculations and scribblings in pencil on paste-downs and flyleaves, Russian bookseller's stamp inside rear cover and a few marks in biro, pp. [viii], 261, [3, blank], 50 plus blank, 8vo, contemporary sheep, compartments gilt ruled on spine, red lettering-piece, worn and scuffed but basically sound (ESTC T108050)

In 1766 'Trail was one of six candidates whose competence in the various branches of mathematics was assessed from 13 until 28 August by a group of examiners that included Thomas Reid, who was a graduate of Marischal and an accomplished mathematician. Although Trail faced stiff competition from Robert Hamilton and John Playfair (who later went on to teach mathematics at Marischal College and the University of Edinburgh respectively), on 28 August he was judged to be the best qualified for the vacant chair of mathematics at Marischal College, Aberdeen' (ODNB). This Syllabus, as the author styles it in the Advertisment, was prepared for the course he taught there.

The Appendix (6 parts) is new in this edition. There were four editions: the first, Aberdeen, 1776, is recorded in ESTC in 4 UK copies only; the second, Edinburgh 1779, in 3 UK and 3 USA copies; the present edition in 6 UK locations and 2 in the USA. The work is anonymous, but the author's name is on the (original) spine label.

135. Trevigar (Luke) Sectionum conicarum elementa methodo facilllima [sic] demonstrata. In usum juventutis academicæ. Cambridge: University Press, 1731, FIRST EDITION, 11 folding engraved plates, a little browned in places, pp. [xv], 171, [1], 4to, contemporary plain calf, red lettering-piece, worn, contemporary ownership inscription on title of Tho. Johnson, Magd[alene College], sound (ESTC T139314)

A textbook for young scholars, based on the works of L'Hôpital and Newton. The original owner of the book is not in the list of Subscribers, but he took pains to correct one title in the list, as well as making a few marks in the text. The Subscribers List is overwhelmingly of Cambridge men, a few from Oxford, and, amongst the unattached, de Moivre, Molyneaux, and Edmund Culpepper, the scientific instrument maker.

#### Can machines think? The Turing Test

136. Turing (Alan Mathison) Computing Machinery and Intelligence. Edinburgh: Published for the Mind Association by Thomas Nelson & Sons, Ltd., 1950, FIRST EDITION, contained in Mind, A Quarterly Review, the year's four issues for 1950, pp. 433-60 (the beginning of Vol LIX, No. 236), 8-page Index for the year loosely inserted, 8vo, original wrappers, edges of wrappers slightly frayed, stamp of University of Birmingham Extra-mural Library on upper covers, good (Origins of Cyberspace 936)
£1,500

'The most lucid and far-reaching expression of [Turing's] philosophy [is] the paper "Computing machinery and intelligence." This, besides summarizing his view that the operation of the brain could be captured by a Turing machine and hence by a computer, also absorbed his first-hand experience with machinery. The wit and drama of the 'Turing test' has proved a lasting stimulus to later thinkers, and a classic contribution to the philosophy and practice of artificial intelligence' (Andrew Hodges in ODNB).

137. Vesalius (Andreas) Opera Omnia Anatomica & Chirurgica. Cura Hermanni Boerhaave...& Bernhardi Siegfried Albini. [Two volumes.] *Leiden: Apud Joannem Du Vivie, et Joan. & Herm. Verbeek, 1725, additional engraved title, engraved portrait, and 82 other plates, including one engraved chart (listed as a singleton* 

in STCN collation), the duplicate of plate 76a (found in some copies) not included here, some browning in places, a little spotting, a few plates with small handling tears at folds (some neatly reinforced), the outer edge of engraved title trimmed to just shy of the image, pp. [xlii], 572; [8], 577-616, 616\*, [1], [617]-684, [2], 685-1156, [52], folio, contemporary blind-panelled Dutch vellum, backstrips with six raised bands, second and third compartments lettered in ink, the covering vellum split at front joint of vol. i (but the joint strong), overall just a bit soiled, remains of a few wax seals to pastedowns, small modern booklabels of Zlatko Ivan Pozeg, very good (Cushing VI.D-8; Norman 2143) £7,500



The first collected edition of the works of Andreas Vesalius, prepared and produced by the Dutch physician and botanist Herman Boerhaave and his pupil Bernhard Siegfried Albinus. Such was the importance of Vesalius's pioneering work on anatomy, the *De humani corporis fabrica* (first published 1543), that in Boerhaave's student days it was still in use as a textbook, though no collected edition of Vesalius's work had ever appeared. Vesalius's position as the founder of modern anatomy is without dispute - his work was instrumental in overturning the Galenic model of the human body, which had been accepted for more than a millenium, and he based his findings on actual dissection and observation of human bodies, bringing a new era of scientific rigour to anatomy and medicine.

For this magisterial edition an attempt was made to gather all of Vesalius's work – though it omits a 1539 letter on bloodletting and includes at least one spurious work – and the first volume contains a biography by Boerhaave and the *Fabrica* while the second has its abridged cousin the *Epitome* plus several lesser works. The anatomical nomenclature was updated for use by modern students, and the woodcut illustrations, perhaps the most influential part of the original works and said to be from the school of Titian, were redrawn by Jan Wandelaar and engraved in copper. Choulant opines that this edition 'is distinguished by its beauty and careful preparation'.

138. Vettori [or Vittori] (Benedetto) Empirica ... necnon Camilli Thomaii Raue[n] natis morboru[m] humani corporis curandorum rationalis methodus, ac Trotulae antiquissimi authoris Compendium, de passionibus mulerium curandis. His accesserunt morborum in his contentorum indices duo, per ordinem alphabeticum digesti. Lyons: Simphorien Beraud, 1572, variant imprint of this edition, woodcut device on title, a little browned in a few places, a pair of leaves at either end guarded, pp. 760, [8, the last two leaves being blank], 16mo, contemporary panelled calf, gilt fleurons at the corners and in the centre of the covers, gilt and gauffered edges, rubbed, rebacked and re-cornered in brown leatherette preserving old (but not original) label, three ownership inscriptions on title, the earliest at the foot, Georg

Brigau(?), in the middle, W. Gabriel Fischer, 1669, Prague, and towards the top, Dr Rich. Meisner, Breslau, Medicin Klinik (late nineteenth-century), sound (Adams V663; Durling 4659; this edition not in OCLC – although in NLM – while COPAC locates three copies only, Oxford, Cambridge, and Manchester)

All catalogues consulted give Bartholomaeus Honoratus as the printer; however the collation is identical in this copy. The *Empirica* of Vettori, professor of medicine at Padua, treats of the cures for numerous diseases, and was reprinted several times after its initial appearance in Paris in 1550. Among the cures is one for melancholy, which caught the attention of Robert Burton. The chief interest of the edition however is the inclusion of the 11th-century Salernitan text on midwifery and the diseases of women by Trotula (Chaucer's Dame Trot).

#### A new instrument

139. Volta (Alessandro) Of the method of rendering very sensible the weakest natural or artificial electricity. Read at the Royal Society, March 14, 1782. [English translation by Tiberius Cavallo]. Printed by J. Nichols, 1782, FIRST EDITION in English, offprint issue, the English text following the Italian, outer pages dust soiled, cut down somewhat (220 x 175 mm) but not encroaching on the text at all, pp. [i], 71, 4to, green cloth, c. 1900, University of Glasgow Chemistry Department bookplate inside front cover, stamped 'Withdrawn,' good (ESTC T133079, Huntington and Yale only in the US)

'Volta embodied the quantities capacity and tension, and the implicit relation that he had established between them ( $Q\equiv CT$ ), in a new instrument, a condensator for rendering sensible atmospheric electricity otherwise too weak for detection. This famous device is nothing but an electrophore with a poor conductor like polished marble of oiled wood as its cake ... Others soon incorporated this insight into ingenious multipliers of weak charges, such as the well-known "doubler" invented by William Nicholson' (DSB).

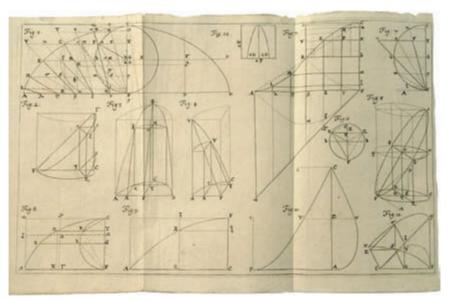
140. [Wallace (Robert)] A Dissertation on the Numbers of Mankind in Antient and Modern Times: in which the superior Populousness of Antiquity is maintained. Edinburgh: Printed for G. Hamilton and J. Balfour, 1753, FIRST EDITION, a little light page-toning, pp. iv, 331, [1], 8vo, contemporary sprinkled sheep, boards with a double gilt fillet border, a bit rubbed, rebacked, backstrip with five blindmilled raised bands between double gilt fillets, black lettering-piece in second compartment, very good (ESTC T145322; Goldsmiths' 8782; Kress 5318.) £1,100

Robert Wallace (1697-1771), a Presbytarian minister, took to more scholarly pursuits as he found himself ideologically isolated from developments in church politics. His researches into historical population growth led to this book, which he showed while in progress to his fellow Philosophical Society member David Hume. Hume's disagreeing response to Wallace's ideas appeared in his Political Discourses, in 1752, with thanks to Wallace's inspiration; the essay is reprinted as an appendix here in Wallace's work, which saw print a year later. Wallace's ideas would be an important influence on Malthus, and a second edition of this book was produced in 1806 after Malthus rekindled interest in it.

Wallace, perhaps presciently, argues that the population of the modern world is not reaching its potential, largely because of developments in industry and cultural tastes for luxury. Farming-based societies have simple needs and people marry young and produce large numbers of children, while in modern industrial societies the economy and tastes shift towards luxuries, marriage is delayed, and the average number of children decreases.

141. Wallis (John) Tractatus duo, prior, de cycloide ... posterior, ... de cissoide ... Oxford: Lichfield, 1659, FIRST EDITION, with three folding engraved plates, a few leaves a bit frayed at the edges, one plate split at the fold (not affecting printed area), pp. [12], 123, small 4to, Cambridge-style panelled calf (by Bernard Middleton), good (ESTC R24598; Wing W612; Madan 2461)

First edition of this rare work in which Newton's most important English precursor, John Wallis, Savilian Professor 1649-1703, gives his analysis of two curves, the cycloid and the cissoid, which were objects of intense study in the decades leading up to the discovery of calculus. The work was prompted by a challenge issued by Pascal in 1658 to the leading mathematicians of Europe to solve a number of problems concerning the cycloid, which he had already solved using his perfected method of indivisibles. The contest aroused great interest: Huygens and Sluse held back after some initial success, while Fabri, Lalouvere and Wallis entered for the prize but their attempts were regarded by Pascal as insufficiently general. Wallis responded to this snub with the present work. Pascal's own solutions to the cycloid problems were published in the same year in his Lettres de A. Dettonville.



Item 141

# Liverpool and llamas

142. Walton (William) A Memoir addressed to Proprietors of Mountain and other Waste Lands, and Agriculturists of the United Kingdom, on the Naturalization of the Alpaca. Recommended by the Natural History Society of Liverpool as a new breeding stock not likely to interfere with sheep pasturage, and as being calculated to supply the manufacturer with another raw material, of our own growth, applicable by its fine quality and glossiness to the purposes of silk; and thus not in the least intermeddling



with either the growers of British sheep's wool, or worsted spinners and woollen manufacturers. (Enlarged from a Paper in the Polytechnic Journal for April, 1841). Printed [by C. Reynell, London] for the Natural History Society of Liverpool, 1841, FIRST EDITION, with a wood-engraved frontispiece, a little foxing, mostly on the endpapers which are also dust-soiled, minor damp-staining at the lower inner corners, pp. 44, 8vo, original ripple-grain cloth, single gilt fillet around sides, 'Alpaca' stamped in gilt at the centre of the upper cover, unevenly faded, and worn at extremities, inscription beneath author's name on title, giving the author's address and stating that it has been sent at the request of William Danson of Liverpool (who is mentioned in the text: see below), sound (Kress C.5690)

Walton (1783-1857) was the son of the Spanish consul at Liverpool, and was thoroughly engaged with matters Spanish and South American. In 1811 he published *An Historical and Descriptive Account of the Peruvian Sheep* (i.e the vicuña). Though brief, the present follow-up is a thorough account of the history of the Alpaca (or Llama, or Andes Sheep), its use in the highlands of Peru, the value of the fleece as a commercial article, and the present state of their numbers in Great Britain. Early travellers, contemporary naturalists, and the Ettrick Shepherd are all adduced. Just as Walton does not consider them a rival to sheep, he says their wool is so distinct as to provide opportunities, rather than competition, to manufacturers. At the end there is a catalogue of Alpacas then in Great Britain, to the number of 79, plus six just arrived in Liverpool last week: the owners are a mixture of noblemen, zoological gardens, and 'travelling caravans.' The frontispiece is a faithful representation of the one owned by Lady Liverpool, and there is a touching account of her devotion to it. The fleece is of course the main economic value of the animal, but in considering other uses for the beast's flesh and skin, in the latter category Walton suggests bookbinding.

William Danson was a Liverpudlian Alpaca enthusiast, and at each mention of him in the text there is a cross in pencil. Scarce.

### The Boulliau-Ward controversy

143. Ward (Seth) De cometis ... Cui subjuncta est inquisitio in Ismaelis Bullialdi astronomiae philolaicae fundamenta. Oxford: Lichfield, 1653, FIRST EDITION of both texts (independent in titles and pagination but not in signatures), with woodcut

diagrams in text, title soiled, light damp-stain to upper margin of a few leaves, pp. [viii], 44, [12], 47, small 4to, modern sheep, spine gilt with black lettering-piece, blue edges (suggesting this was once part of a German Sammelband), very good (ESTC R35283; Madan 2239) £2,000

Ward (1617-89) is best 'remembered in the history of astronomy for his formulation of an alternative to Kepler's law of areas. Kepler's law of elliptical motion began to find general acceptance with the publication of Bouillau's *Astronomia Philolaica* in 1645. In place of the area law, however, Bouillau postulated a complicated motion described by reference to a cone. Ward, in 1653 [in the second part here], showed that Bouillau's scheme amounted to assuming uniform angular motion with respect to the empty focus of the ellipse ... [This] presented a very attractive alternative to the intractable Kepler equation. During the following generation, it and various modifications of it were widely used in planetary computations' (DSB).

In *De Cometis*, Ward suggested that comets moved on closed, elliptical orbits about the sun and he further argued that because comets were 'eternal' they would reappear in the skies at periodic intervals. In contrast Kepler had argued in his *De cometis libelli tres* (1619) that comets were ephemeral objects formed spontaneously out of 'fatty' impurities in the aether that travelled in straight lines.

Ward, the first person at Oxford to teach the Copernican system, was a member of the Oxford Philosophical Society, a fore-runner of the Royal Society of which he was a founding member.

## Waring's Problem

144. Waring (Edward) Meditationes Algebraicae ... Editio Tertia. Cambridge: J. Archdeacon, 1782, Second edition (see below), uncut, a little dusty in places and some light foxing, pp. [i], xliv, 389, [2, Corrigenda], [12, Addenda], [8], [4, Addenda et Corrigenda], with additional folded leaves inserted at pp. 31, 119, 123 & 213, 4to, late nineteenth-century vellum, yapp edges, spine lettered in ink, slightly warped, bookplate of Thomas Edward Dicey and later notes as to provenance (see below), good (ESTC T113616)

Waring's first mathematical work, *Miscellanea Analytica*, was made available as a single chapter in 1759 in support of his application for the Lucasian chair. The complete work appeared in 1762 and covered the theory of equations and algebraic curves. In 1770 an expanded version of the algebraic part appeared as *Meditationes Algebraicae*, hence the present work being styled the 'third edition'; the geometric part appeared separately two years later as *Proprietates Algebraicarum Curvarum*.

There is a now famous problem, known as Waring's Problem, which stems from a statement in *Meditationes Algebraicae* that was made without proof, certainly not an act that endears one to mathematicians. The short version is: "... each positive integer is the sum of four squares; nine cubes, 19 fourth powers, and so on ..." Although Waring made the statement in 1760, it was not until 1909 that David Hilbert proved that for every integer 'n' there is an integer 'm' such that every integer is a sum of m nth powers.

'The importance of Waring's formulas and conjectures, beyond the mathematician's view, is that there are applications in computer algorithms involving parallel processing that

help speed up the performance of calculations. This naturally translates into efficient use of resources to solve problems that affect our daily lives' (lucasian.org).

Provenance: bookplate of Thomas Edward Dicey (1789-1858) on front paste-down. Dicey matriculated at Trinity College, Cambridge in 1808, and was Senior Wrangler in 1811. He was an important railway entrepreneur, acting as Chairman of Midland Counties Railway (later the Midland Railway) from 1837. An inscription at the foot of the title page states 'This was received by the late Thomas Edward Dicey on getting the Smith's Prize at Cambridge in 1811,' and that the book was given to Dicey's son Henry John Stephen in December 1878. Later bookplate and withdrawal stamp of Glasgow University Library on front paste-down with their ink stamp on title verso and lower blank margin of final leaf.

145. Waring (Edward) Meditationes analyticae. Cambridge: J. Archdeacon, 1785, one folding engraved plate of diagrams, pp. [iv], xlii, 722, [3, corrigenda], [2], 4to, nineteenth-century calf prize binding, spine and covers ruled and decorated in gilt, arms of Cambridge University stamped in gilt on covers, rebacked with most of cracked original spine laid on, marbled endpapers and matching edges, armorial bookplate inside front cover, good (ESTC T113617) £800

Second edition of the second of Waring's major treatises on mathematics, a handsome copy.

'Waring's mathematical style is highly analytical. In fact he criticized those British mathematicians who adhered too strictly



to geometry. It is indicative that he was one of the subscribers of John Landen's *Residual Analysis* (1764), one of the works in which the tradition of the Newtonian fluxional calculus was more severely criticized. In the preface of *Meditationes analyticae* Waring showed a good knowledge of continental mathematicians such as Clairaut, d'Alembert, and Euler. He lamented the fact that in Great Britain mathematics was cultivated with less interest than on the Continent, and clearly desired to be considered as highly as the great names in continental mathematics – there is no doubt that he was reading their work at a level never reached by any other eighteenth-century British mathematician. Most notably, at the end of chapter three of *Meditationes analyticae* Waring presents some partial fluxional equations (partial differential equations in Leibnizian terminology); such equations are a mathematical instrument of great importance in the study of continuous bodies which was almost completely neglected in Britain before Waring's researches' (ODNB).

The rather splendid armorial book-plate is that of Henry Godfrey Godfrey Fausset Osborne.

146. Wells (Edward) The Young Gentleman's Arithmetick, and Geometry; Containing such Elements of the said Arts or Sciences, as are most useful and easy to be known. Printed for James Knapton, 1713, FIRST EDITION, 2 parts in one vol., each with its own title-page in addition to the general title-page but continuously paginated, with 14 folding engraved plates bound at the end and folding out beyond the pages of the book as per the instructions engraved on the first (2 plates numbered 13), a little spotted or soiled in places, plates trimmed close at foot and one with a small piece missing from outer margin, pp. [xxiv], 292, [4], 8vo, contemporary panelled calf, rebacked and recornered a little crudely, contemporary ownership inscription on fly leaf of Gervas Barker, calligraphic inscription on rear flyleaf of W.H. North dated June 12, 1806, two pages of poetical quotations and calculations in this hand on flyleaves at the front, sound (ESTC T140928)

Wells published copiously from 1698 until his death, and his output can be divided into five main categories: two religious and three educational ... he published a series of mathematical works, including the *Elementa arithmeticae* (1698), which was followed by a series of interconnected works: the *Young Gentleman's Astronomy, Chronology and Dialling* (1712), *Young Gentleman's Arithmetick and Geometry* (1713), *Young Gentleman's Course of Mathematicks* (1714), and *Young Gentleman's Trigonometry, Mechanicks and Opticks* (1714)' (ODNB). *Arithmetick and Geometry*, which had a second edition on its own in 1723, was also included in *The Young Gentleman's Course of Mathematicks*, 3 vols., 1714.

# Identification of the volcanic origin of the Basalts

147. Whitehurst (John) An Inquiry into the original State and Formation of the Earth; deduced from facts and the Laws of Nature; To which is added an Appendix, containing some general Observations on the Strata in Derbyshire. *Printed for the Author, by J. Cooper, 1778*, FIRST EDITION, half-title, 6 engraved plates on 4 leaves, 2 folding, by Whitehurst, subscribers' list, pp. [xvi], iv, 199, 4to, modern half calf, five raised bands, maroon leather lettering-piece in second compartment, orange cloth sides, untrimmed, very good (ESTC T153454)

Whitehurst, maker of clocks and scientific instruments, supplied Matthew Boulton with instruments. Travelling round the country gave Whitehurst opportunities to pursue his favourite field of study and to collect geological information, which bore fruit in the above: 'The importance of this work lies in the 'Appendix on the strata in Derbyshire' [where] he identifies the volcanic origin of the basalts and also hints at the orderly sequence of strata, one of the great geological generalizations' (ODNB). The book led to his election to the Royal Society in the following year.

148. Wiseman (Richard) Severall Chirurgicall Treatises. Printed by E. Flesher and J, Macock, for R. Royston ... and B. Took, 1676, FIRST EDITION, half-title with the ownership signature of 'A Rowlands Surgeon Nanty Glo. 1816,' the fore-edge a little frayed and dampstained and repaired at verso, one or two other edges dampstained, pp. [xvi], 498, 79, [14], folio, modern calf, backstrip with five raised bands, red morocco lettering-piece, good (Garrison-Morton 5573; ESTC R12081; Wing W3107)

£1,000

Considered to be the father of modern surgery, and considerably in advance of his time, Wiseman was the the best known and most skilful surgeon of his era. His *Chirurgicall Treatises* contains eight treatises on: tumours, ulcers, diseases of the anus, scrofula, wounds, gun-shot wounds, fractures, and venereal disease. 'Wiseman ranks in surgery as high as Sydenham does in medicine. He made many valuable contributions to the subject; he was the first to describe tuberculosis of the joints ... and he gave a good account of gunshot wounds. Wiseman became surgeon to Charles II in 1672' (G-M).

149. Wolff (Christian) A Treatise of Algebra; with the application of it to a variety of problems in arithmetic, to geometry, trigonometry, and conic sections. With the several Methods of solving and constructing Equations of the higher kind. By Christian Wolfius, Chief Professor of Mathematics and Philosophy in the College of Magdeburg in Germany, and F.R.S. To which is prefix'd, what he refers to in his three preliminary treatises. Translated from the Latin [by John Hanna]. Printed for A. Bettersworth and C. Hitch, 1739, FIRST EDITION IN ENGLISH (first published in German in two vols., Halle, 1713-15), with eight folding engraved plates, one or two spots or stains but a crisp copy, pp. xii, 340, 8vo, contemporary unlettered polished calf, double gilt ruled borders on sides, gilt rules on either side of the raised bands on backstrip, a trifle worn, short crack at top of upper joint, two signatures inside front cover, the earlier being that of Chas. Berkeley, the other of Saml. Rippiner, Builder, Oundle, May 1850, very good (ESTC T64234)

Wolff (1679-1754), better known as a philosopher, is 'regarded as the central historical figure who links the philosophical systems of Leibniz and Kant' (*Stanford Encyclopedia of Philosophy*). His English translator footnotes the reference in the author's preface to Leibnitz's 'new kind of Analysis' – 'The Author means Fluxions, the first invention of which is now universally ascrib'd to the great Sir Isaac Newton.' The translation is dedicated to William Jones. Following the end of the text is an advertisement for W. Nicholls's Boarding School in Brook Street, where, no doubt, this work was used.

On the evidence of this volume, the nineteenth-century builder Samuel Rippiner was not only well-educated but also knew how to look after his books.

### A revolution in navigational science

150. Wright (Edward) Certain Errors in Navigation detected and corrected. With many Additions that were not in the former Editions. *Printed by Joseph Moxon*, 1657, Third edition, without the folding maps, but with the four folding woodcut diagrams tipped in, three engraved illustrations, numerous woodcut diagrams, and tables, in the text, a pink wash applied to the title, two of the engravings and two of the woodcuts; some water-staining at either end and mould marks towards the back, a little marginal worming, title weak in the margins, pp. [i (engraved title within a panel border comprising a world map on Mercator's projection at foot and navigational instruments above, verso blank: lacking initial blank), 184, 197-224 (text continuous despite gap), 110, [2 (advertisements, verso blank)], 20, small 4to, resewn and recased in contemporary sheep, scuffed, surface of spine cracked, new label, ownership inscription on flyleaf of Richard Stratton, dated 1694, sound (ESTC R16243; Wing W3689; Sabin 105574; see PMM 106 (first edition))

Third edition (first 1599) of this extremely important navigational text. All of the early editions are rare. This edition is a reprint of the second, 1610, which had the following additions: *The division of the whole art of navigation* (caption title), a translation of *Compendio de la arte de navegar* by Rodrigo de Zamorano, and *The haven-finding art* (caption title), a translation of *De havenvinding* by Simon Stevin [see item No. 130 for the French translation of this work, contained in Stevin's *Oeuvres Mathematiques*, 1634].

Wright 'brought about a revolution in navigational science, which for the first time he based firmly on mathematical principles ... a contribution of the greatest value. His fame rests chiefly on his tables for the construction of maps using Mercator's projection. On the old charts the degrees of of latitude and longitude were shown as of equal length, a distortion which made the plotting of a



course at sea extremely difficult. Mercator had first published a chart on which a straight course plotted on a globe could be drawn as a straight line on the map or chart by lengthening the degrees of latitude in greater proportion than the degrees of longitude, but he had not made it practically applicable. Wright devised and published a set of tables by which Mercator's projection could be put to navigational use; the method still used today. Wright also formulated instructions for the use of the compass and the cross-staff, made improvements in navigational instruments and gave tables of magnetic declination' (PMM).

Thus the scientific and historical importance of the work resides in the text and the tables, rather than the maps, valuable as they are. The absence of the maps in this copy is to be regretted, but the effect on the price is dramatic: the Streeter copy sold recently for \$264,000 (one of only three copies, one without the maps, to have appeared at auction since 1975: no copy in the Macclesfield Library). The world map, at some 20 x 30 inches is far too large for the book, while the chart of the Azores, being 'large enough to be used' (DSB), was no doubt sometimes removed for this very purpose.

151. Yeoman (Thomas) The report of Thomas Yeoman, Engineer, concerning the drainage of the north level of the fens, and the outfal of the Wisbeach River. [No place or publisher,] [1769,] SOLE EDITION, large folding-plan, a little light browning, pp. 12, small 4to, stab sewn into original stiffened grey-blue wrappers, minimal dustsoiling, 'Mr. Yeoman' in contemporary hand on upper wrapper, very good (ESTC T126188)

Yeoman was an important figure in the development of civil engineering, serving as the first president of the Society of Civil Engineers and building the Limehouse Cut between the Thames and the Lee (the oldest canal in London). The plan is titled 'A chain and scale of levels along Wisbeach River and channel from Peterborough Bridge down to the Eye at sea. Taken in 1767 by William Elstobb.'

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Item 53



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