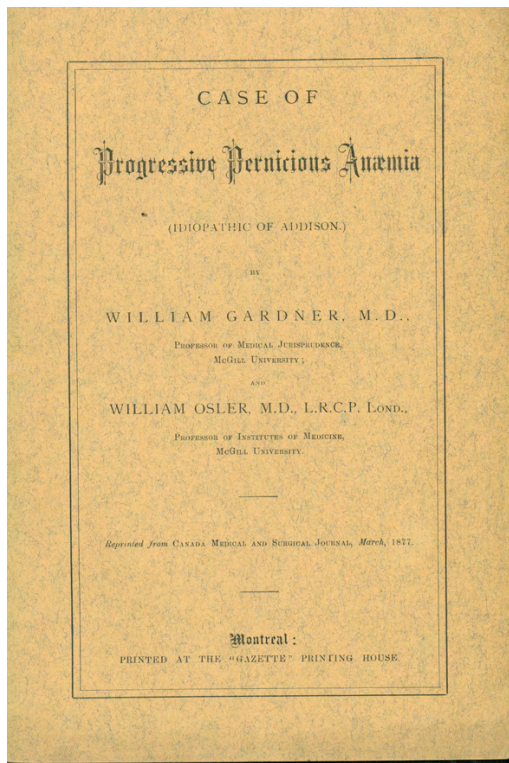
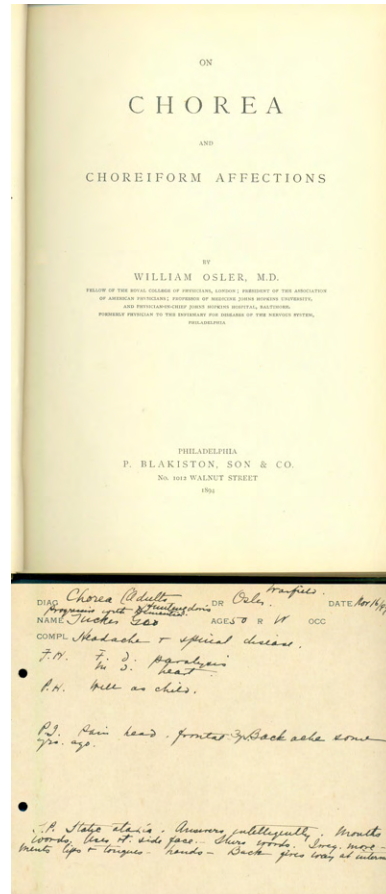


First Edition in Book Form of the first English periodical devoted to rare books, published by Thomas Osborne, one England's first rare book and manuscript dealers. It was originally issued in six monthly parts between January and June 1737. The anonymous author, William Oldys, devoted his life to antiquarian and bibliographic pursuits, compiling valuable notes on Langbaine's *Dramatick Poets* (1691), writing an important "Life" of Sir Walter Raleigh (published in the 1736 edition of Raleigh's *History of the World*), and amassing a library of historical and political works. In 1731 Oldys sold his library to Edward Harley (1689-1741), second Earl of Oxford and a noted bibliophile. From 1738 to 1741 Oldys served as the Earl's librarian, but had to give up the post upon his patron's death. In 1742 Thomas Osborne, one of England's first rare book and manuscript dealers, purchased the immense library of the Earl of Oxford, and hired Oldys and Samuel Johnson to prepare a descriptive catalogue of the Harleian collection prior to its sale. The resulting *Catalogus bibliothecae Harleianae* was issued in five volumes between 1743 and 1745. Osborne and Oldys also worked together on *The Harleian Miscellany*, an annotated reprint of selected tracts and pamphlets from the Harleian library edited by Oldys and Johnson and published by Osborne. *Dictionary of National Biography*. 40447



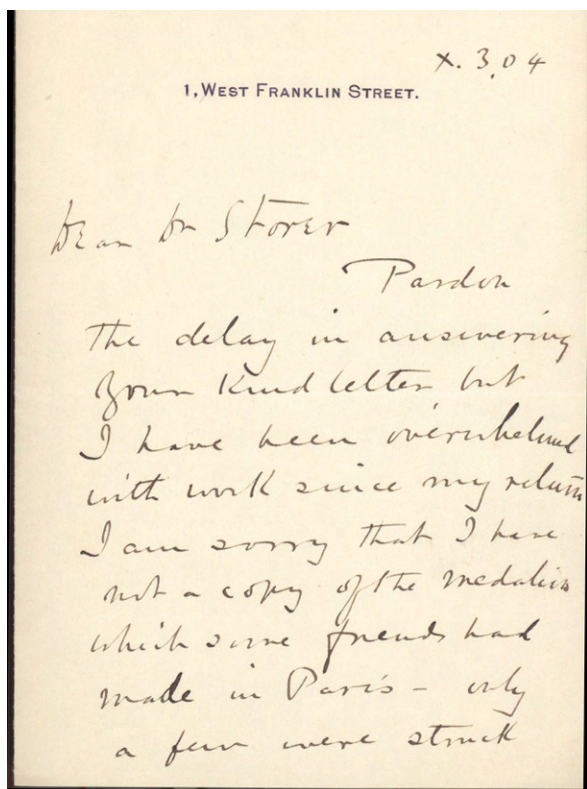
108. **Osler, William (1849-1919) & William Gardner.** Case of progressive pernicious anaemia (idiopathic of Addison). Offprint from *Canada Medical and Surgical Journal* (March 1877). [2], 20pp. 219 x 147 mm. Original printed wrappers, creased vertically. Very good. \$1500

First Edition, Very Rare Offprint Issue. "First complete account of pernicious anemia" (Garrison-Morton 3125.2). Osler, who has been called "the first American hematologist," made significant contributions to our understanding of the blood and blood disorders. He was one of the first to describe macrocytes, erythroid hyperplasia, gastric mucosal thinning, and neurologic abnormalities in pernicious anemia. Golden & Roland 93. 10717



109. **Osler, William (1849-1919).** On chorea and choreiform affections. 8vo. x, 125 [1]pp. Philadelphia: P. Blakiston, 1894. 232 x 152 mm. Original cloth, slightly worn at extremities. Light browning, otherwise fine. Laid in is a printed medical record card for a patient suffering from chorea, completed in manuscript in an unknown hand, with Osler's name listed as the attending doctor. \$1750

First Edition, American issue. Osler's summary work on chorea, his second neurological monograph. Osler helped establish the association between heart disease and chorea. "His work on chorea is still considered an excellent clinical epidemiological study and his introductory historical comments are still worth reading" (Roach & Ashwal, "Sir William Osler," *Founders of Child Neurology* [1990], p. 328). Golden & Roland 635. 36268



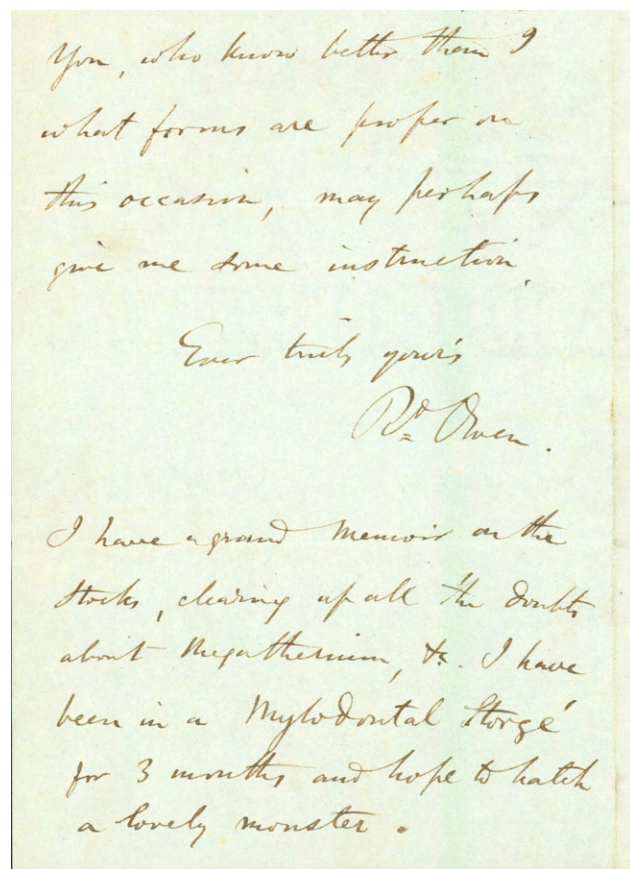
110. **Osler, William (1849-1919)**. A.L.s. to [Horatio] Storer (1830-1922), dated X.3.04 [i.e., October 3, 1904], on stationery engraved with Osler's 1, West Franklin Street address. [Baltimore], 1904. 2 pp., on sheet folded to 161 x 116 mm. Creased where folded, but very good. \$2250

Letter to Storer, the medical numismatist and author of *Medicina in nummis* (G-M 6633). "Pardon the delay in answering your kind letter, but I have been overwhelmed with work since my return. I am sorry that I have not a copy of the medalion [sic] which some friends had make in Paris—only a few were struck off. Perhaps next year I may be able to get you one." The "medalion" Osler referred to was certainly the famous Vernon Plaque, commissioned by Henry Barton Jacobs in 1903 from Frédéric C. V. de Vernon, France's premier medalist. See Cushing, *Life of Osler*, p. 611. DAMB (Kelly & Burrage) re Storer. 30419

"Hope to Hatch a Lovely Monster"

111. **Owen, Richard (1804-92)**. Autograph letter signed to Joseph Pentland (1793-1873). [London,] College of Surgeons, Nov. 9, 1842. 3-1/2pp. 182 x 113 mm. Fine. \$2250

Letter with excellent scientific content from Richard Owen, the foremost British comparative anatomist and pale-



ontologist of his era, and founder of London's Natural History Museum. Owen's letter discusses his award of a civil list pension of £200 per year from the British government, an event that marked "a major step up the social ladder for Owen" (Rupke, *Richard Owen*, p. 52). Owen received his first notification of the honor in a letter dated 1 November 1842 from British Prime Minister Robert Peel. He responded to Peel's letter the same day, but was still waiting for official confirmation at the time he wrote the present letter to Pentland:

As I never see a newspaper your congratulations startled me: but both Mrs. Owen & myself esteem the kindness which prompted them. I have, it is true, been honor'd by a gracious letter of 3 pages & a half from the Premier, proposing with my consent to name me for the Civil List, &c., but beyond that nothing official has yet reached me: & I only trust, for the honor of physiology, that it is intended to give it the same reward as Chemistry has received in the person of Faraday & astronomy in that of Airy.

In the last phrase Owen was echoing his friend and fellow paleontologist William Buckland, who in January 1842 had sent a letter to Peel recommending Owen for a civil list pension and comparing his national reputation as a scientist to those of Michael Faraday, John Dalton and astronomer George Biddle Airy.

In a postscript Owen touched on his important researches on the giant extinct ground sloths of South America:

I have a grand memoir on the sloths, clearing up all the doubts about Megatherium, &c. I have been in a Mylodontal [...] for 3 months, and hope to hatch a lovely monster.

The “grand memoir” refers to Owen’s *Description of the Skeleton of an Extinct Giant Sloth* (1842), an anatomical study of the mylodon skeleton donated to the College of Surgeons in 1841 by Woodbine Parish, Britain’s *chargé d’affaires* at Buenos Aires. In his paper Owen used “a detailed description of form . . . to infer function, eating habits and habitat” (Rupke, p. 129), defending Cuvier’s and Buckland’s correct claim that the mylodon was indeed a herbivorous sloth and not an insect-eating armadillo-like creature, as some had argued.

Owen’s correspondent, Joseph Pentland, was a geographer and naturalist who had studied with Cuvier. Pentland helped to survey a large portion of the Bolivian Andes in 1826 and 1827, and served as British Consul-General in Bolivia from 1836-39. 40453.

112. **Owen, Richard (1804-92).** Lithograph portrait with facsimile signature, by Thomas Herbert Maguire (1821-95), lithographed by M. & H. Hanhart. [Ipswich: G. Ransome,] 1850 (dated in the plate). 610 x 440 mm.; image (without signature) measures 242 x 292 mm. A few faint spots in the margins, but very good. \$2500

First Edition. The largest and best portrait of paleontologist and zoologist Richard Owen, superintendent of the Natural History department of the British Museum, and one of Darwin’s foremost adversaries. The portrait formed part of a series titled *Portraits of Honorary Members of the Ipswich Museum*, published in 1852. *Rare.* 40423

Owen on the Natural History Museum—Presentation Copy

113. **Owen, Richard (1804-92).** On the extent and aims of a national museum of natural history. 8vo. [4], 126pp. 2 folding plates. London: Saunders, Otley & Co., 1862. 222 x 142 mm. Original plum cloth, a little worn, inner hinges cracking. Light toning, but very good. **Presentation copy, inscribed by Owen on the verso of the front free endpaper: “The Marquis of Ripon, K.G. with the Author’s respects.”** \$1500

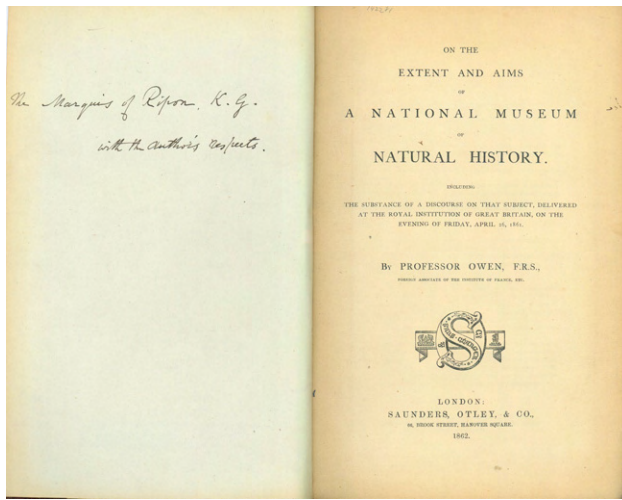
First Edition. Owen was the prime mover behind the construction of the Natural History Museum, a project that occupied him for over two decades. After his appointment as superintendent of the Natural History department of the



British Museum in 1856, dissatisfied with the cramped and disorganized confines of the existing British Museum (located in Bloomsbury), Owen began lobbying for a “separate but unified national museum of natural history . . . to represent the three kingdoms of nature” (Rupke, p. 34), to be housed in a building spacious enough to display even the largest specimens of both living and fossil species. The project did not really get off the ground until October 1861, when Owen

manipulated future Prime Minister Gladstone into the opinion that the current exhibition facilities for the Natural History Department of the British Museum were inadequate for their task. Owen cultivated Gladstone’s support in order to bring the issue before Parliament once the Trustees of the British Museum fell into agreement with his extravagant plans for building not just more display space, but an entirely new building to house the natural history collection (Johnson-Roehr, “The Natural History Museum—London” [internet reference]).

After much heated debate, Owen’s plan was approved and the South Kensington museum, designed by Albert Waterhouse, began construction in 1873. The building was completed by late 1879, and the museum opened its doors to the public in 1881. The social and cultural impact of Owen’s Natural History Museum cannot be overestimated: Bill Bryson, in his *Short History of Nearly Everything* (2003), has



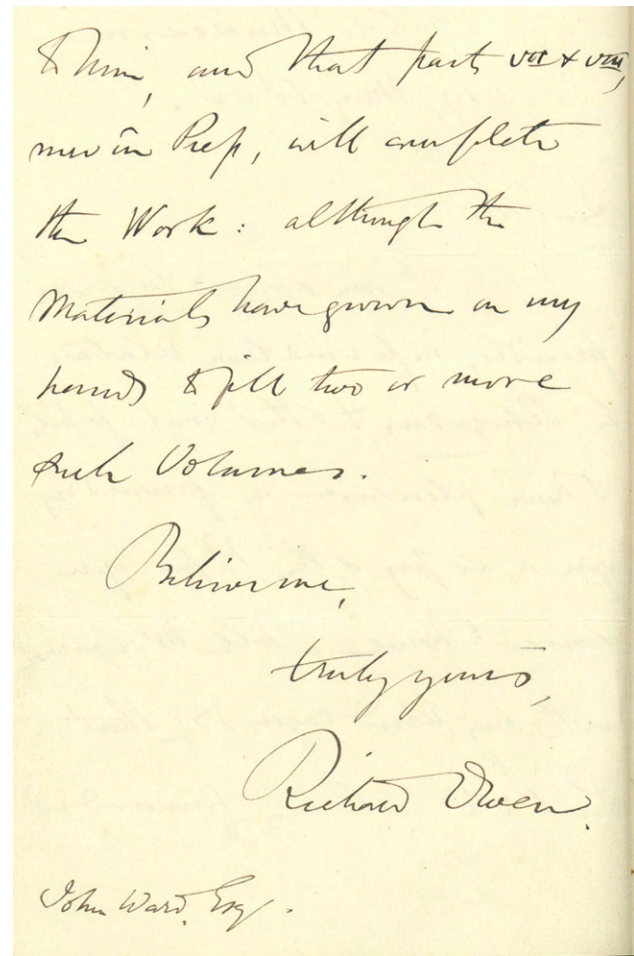
stated that “by making the Natural History Museum an institution for everyone, Owen transformed our expectations of what museums are for” (p. 81).

Owen’s *On the Extent and Aims of a National Museum of Natural History*, containing the text of his lecture delivered before the Royal Institution in April 1861, was part of his long campaign to obtain political backing for the South Kensington Museum. Owen presented this copy of the work to the George Frederick Samuel Robinson, first Marquess of Ripon, a prominent Liberal politician who held several influential posts during Gladstone’s two terms as Prime Minister. The presentation was made in 1869 or afterwards, since Robinson was not made Knight of the Garter (K.G.) until that year. 40263

Presentation Copy, with Autograph Letter Signed

114. **Owen, Richard (1804-92).** On the dental characters of genera and species, chiefly of fishes, from the low main seam and shales of coal, Northumberland. Offprint from *Trans. Odontol. Soc. G. B.* 8vo. 72pp. 15 chromolith. plates. London: Wyman & Sons, 1867. 211 x 137 mm. 19th cent. cloth, a little shaken, minor wear at spinal extremities, handwritten paper spine label (a little chipped). **Presentation copy, with 2-page A.L.s. from Owen to the recipient John Ward, dated 19 May 1868,** tipped in at the front; Ward’s signature (dated May 1868) and note “Presented by Professor Owen” on the title. Sheet of notes in pencil in an unidentified hand laid in. \$2250

First Separate Edition of Owen’s brief monograph on fossil teeth, originally intended for inclusion in a second edition of Owen’s *Odontography*, which, however, was never published. The work is illustrated with 15 colored plates showing cross-sections and microscopic views; Owen had



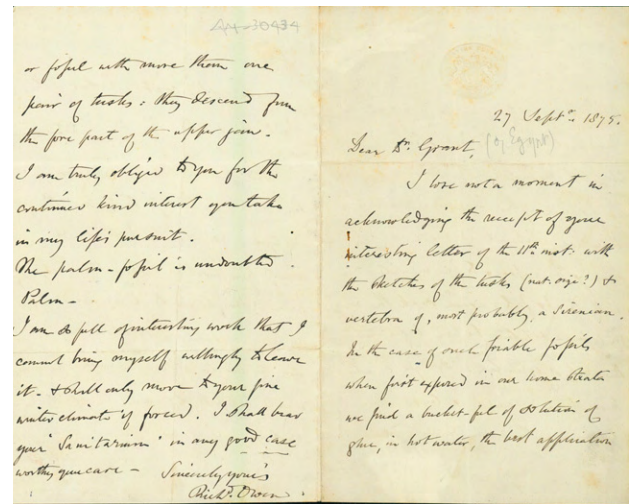
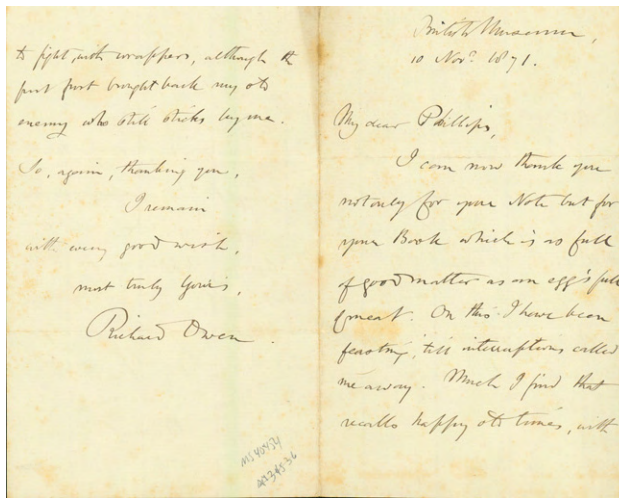
been among the first to take advantage of recent improvements in microscopy to study the structure of fossil teeth.

Owen presented this copy to John Ward, a collector of fossils who contributed specimens to the British Museum; see *The History of the Collections Contained in the Natural History Departments of the British Museum* (1904), p. 235. Owen’s letter to Ward reads as follows:

I am obliged by your friendly information relative to *Rhizodus* & other coal-fossils, & have pleasure in forwarding you a copy of the Paper you desire to have. Tell Mr. Garner with my kind regards, that “Part VI” will be forwarded to him, and that parts VII & VIII, now in Press, will complete the Work: although the Materials have grown on my hands to fill two or more such volumes. Believe me, truly yours, Richard Owen.

[postscript] I could not, just at present, devote time to describe your Fossils—I may tell you when I am at leisure to take them in hand.

“Rhizodus” refers to an extinct group of predatory lobe-finned fishes. We have not been able to identify the publication Owen mentions. B.M. (Nat. Hist.), p. 1491. Owen, *Life*, II, p. 369. Rukpe, *Richard Owen*, pp. 113-15. 40211



115. **Owen, Richard (1804-92).** Autograph letter signed to John Phillips (1800-1874). [London], British Museum, 10 Nov. 1871. 4pp. 180 x 113 mm. Light spotting, but very good. \$1500

To Owen's old friend John Phillips, reader in geology at Oxford University, who had sent Owen a copy of his *Geology of Oxford and the Valley of the Thames* (1871).

I can now thank you not only for your Note but for your Book which is so full of good matter as an egg's full of meat. On this I have been feasting, till interruptions called me away. Much I find that recalls happy old times, with dear old Buckland, when we were groping our way. If I live to finish, & you to see, the Vol. on Australian fossils I promise you an early copy: I think it is likely to be the first opportunity I may have of returning you anything in kind . . .

Owen refers here to geologist and paleontologist William Buckland (1784-1856), author of *Reliquiae diluvianae* (1823) and of the first full account of a fossil dinosaur (1824). Buckland's support had been crucial to the advancement of Owen's career in the 1830s and 1840s. The "Vol. on Australian fossils" refers to Owen's *Researches on the Fossil Remains of the Extinct Mammals of Australia*, which he was then in the midst of writing; the work was published in 1877-78.

John Phillips, the recipient of this letter, was the nephew and pupil of geologist William Smith (1769-1839), whose "Delineation of the Strata of England and Wales with part of Scotland" (1815) was the first large-scale geological map of any country. 40454

Owen's Method of Fossil Extraction

116. **Owen, Richard (1804-92).** Autograph letter signed to Dr. [James Andrew Sandilands?] Grant

(1840-96). N.p. [London], 27 Sept. 1875. 4pp., on stationery embossed with the seal of the British Museum. One or two faint spots, otherwise fine. \$1500

Owen here advises his correspondent on the best method of excavating fossil remains:

I lose not a moment in acknowledging the receipt of your interesting letter of the 11th inst. with the sketches of the tusks (orig. size?) & vertebra of, most probably, a Sirenian [member of the manatee or dugong family]. In the case of such friable fossils when first explored in our home strata we find a bucket-ful of solution of glue, in hot water, the best application poured over the tusks or bones, in situ, before attempting the extraction. I think it likely that it would add also to the consistence of the limestone matrix. Then we work out as much of the matrix as appears to be in contact with the fossil, again soak the mass in glue-solution, before beginning the work of extraction.

The next portion of the letter contains Owen's instructions to Grant for shipping the fossil remains to the British Museum and billing the Museum for his costs. Owen then returns to the subject of the fossil itself:

All of the shells associated with the tusks would help to determine the age of the matrix. I know of no Sirenian recent or fossil with more than one pair of teeth: they descend from the fore part of the upper jaw. I am truly obliged to you for the continued kind interest you take in my life's pursuit.

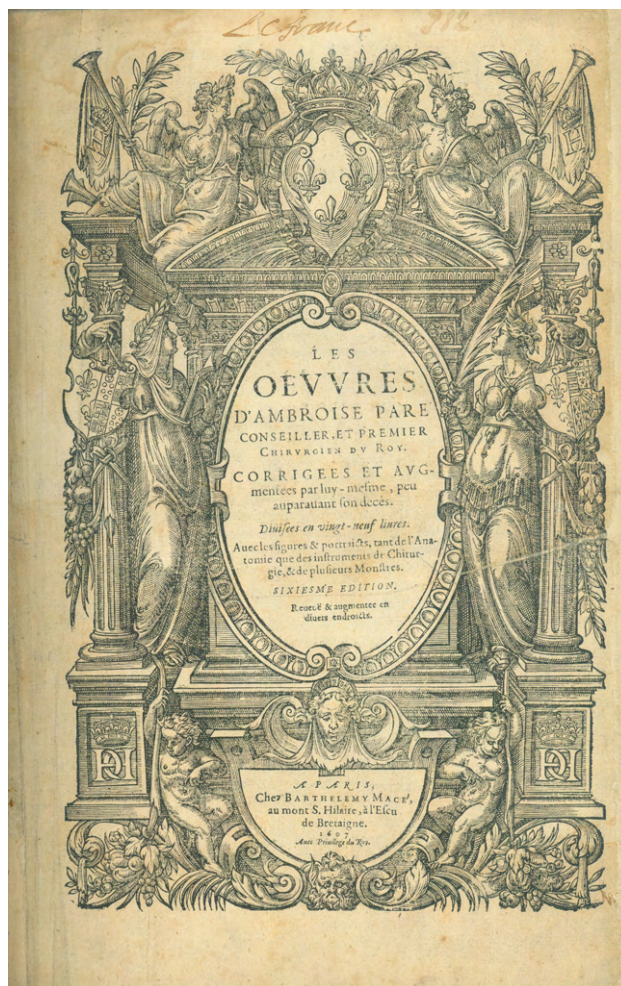
Owen's correspondent, identified in a later pencil note as being "of Egypt," was most likely Dr. James A. S. Grant, a Scottish physician who settled in Egypt in the 1860s. Grant assisted in the 1872 survey of the Great Pyramid, and took part in a number of archeological excavations. His large collection of Egyptian antiquities is now at the Marischal Museum at the University of Aberdeen. 40455



Best Illustrated Early American Surgery—Very Fine Copy

117. **Pancoast, Joseph (1805-82).** A treatise on operative surgery. . . . 4to. Adverts., 380pp., prospectus for Moreau's *Midwifery* with specimen plate, adverts. 80 lith. plates, including frontispiece. Philadelphia: Carey & Hart, 1844. 312 x 254 mm. Original cloth, rebaked preserving original spine. Occasional lightly browning but an excellent copy of a work often found foxed or stained. 19th cent. bookplate and discard note of the N. Y. Acad. Med. \$3250

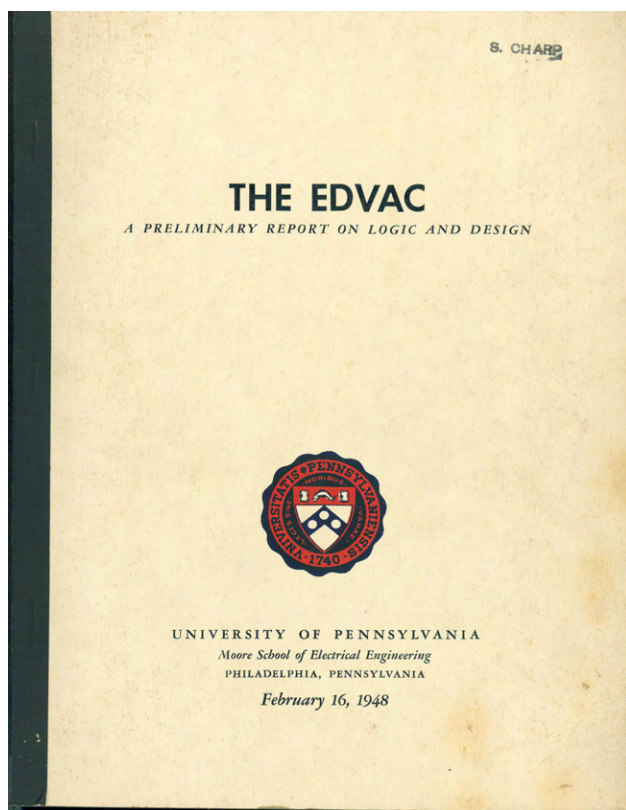
First Edition of the finest copy we have handled of this classic work. Pancoast's *Operative Surgery* is the most spectacularly illustrated American surgical treatise of the 19th century, with 80 plates comprising 486 separate illustrations. The work includes one of the most important and extensive sections on plastic surgery published in America during the period. Professor of anatomy and surgery at Jefferson Medical College, Pancoast developed a number of new operations, including the first successful plastic operation for exstrophy of the bladder (G-M 4170), the "plow and groove" suture for rhinoplasty, and the neurosurgical procedure of sectioning the second and third branches of the fifth pair of nerves as they emerge from the base of the brain (G-M 4855). His *Treatise* also includes one of the earliest accounts of a free skin graft, used in this case in the reconstruction of an earlobe. Garrison-Morton 5598. Kelly & Burrage. Rutkow GS22. Waller 7083. Zeis 610, 1875. 40091



Paré's Method for Induced Labor

118. **Paré, Ambroise (1510-90).** Les oeuvres. . . . Folio. [26] 1228 [118]pp. Woodcut title and text woodcuts; *lacking the engraved portrait of Paré by Horbeck, as do many copies.* Paris: Barthelemy Macé, 1607. 325 x 212 mm. 20th cent. calf in period style, rubbed, corners worn. Title and second leaf expertly remargined, light browning, occasional foxing. Very good copy apart from the missing portrait. \$4750

Sixth edition, Macé imprint, of the collected works of Paré. See G-M 59 and 5565. The sixth edition uses the text of the fifth edition, considered the most complete; however, it incorporates for the first time an addition to Book 28, namely, the passage recommending induced labor in certain cases. This was added after Guillemeau, Paré's son-in-law, related having learned the method from Paré; Guillemeau used it to deliver his wife (Paré's daughter), thereby saving her life. Doe 34. 32018



The EDVAC

119. **Patterson, George W. et al.** *The EDVAC: A preliminary report on logic and design.* [1], iii, 100 (i.e. 102)ff. 2 diagrams inserted in text; 3 large folding plans in pocket at rear: “Figure 3: EDVAC control panel assembly,” “Figure 4: EDVAC add-subtract block diagram,” and “Figure 5: Standard symbols for block diagrams.” Philadelphia: University of Pennsylvania, Moore School of Electrical Engineering, February 16, 1948. 277 x 216 mm. Original stiff wrappers, cloth spine, one corner creased, minor spotting. Folding plans date-stamped April 8 and April 9, 1948; Figure 3 stamped “Restricted” and “Preliminary”; Figures 4 and 5 stamped “Preliminary.” Ownership stamp and signature of S[olomon] Charp. \$7500

First Edition, published in a very small edition, probably 100 copies or less. The EDVAC (short for Electronic Discrete Variable Automatic Computer), was the first planned stored-program electronic computer. Its construction was proposed in August 1944, but the computer did not become operational until 1951. The theoretical basis for the machine was described in John von Neumann’s famous and unfindable first account of the machine’s design and architecture in his *First Draft of a Report on the EDVAC* (1945). By 1948 work was also underway on stored program computers in Manchester and Cambridge, England, as well as in

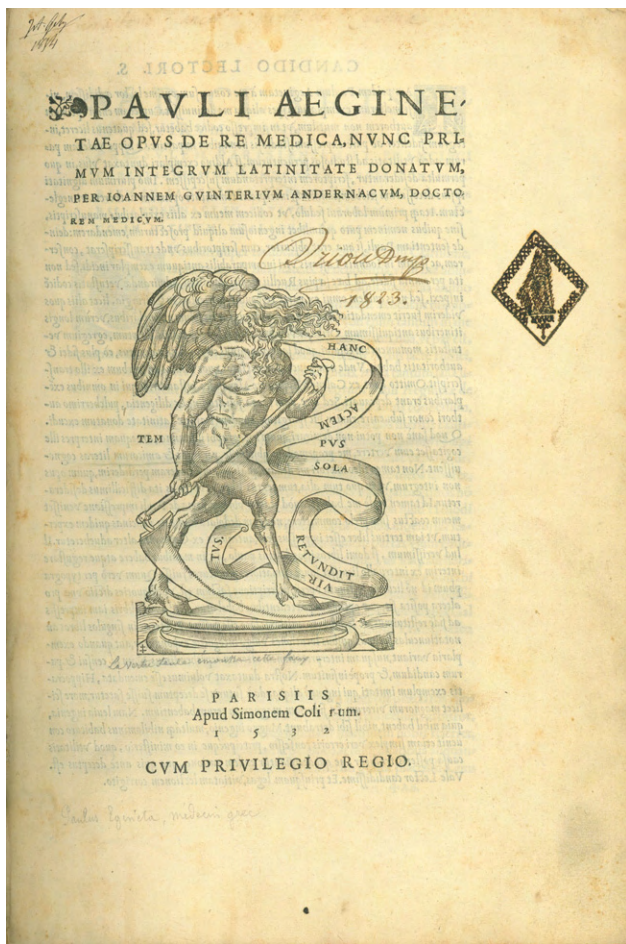
Philadelphia at Eckert & Mauchly’s Electronic Control Co. These would eventually result in the Manchester “Baby” prototype, Maurice Wilkes’ EDSAC, and Eckert & Mauchly’s BINAC. However when this report was issued in February, 1948 none of those computers was operational. Patterson’s report therefore contains some of the first blueprints of a stored-program computer architecture before the stored-program electronic computer era began.

Built for the U. S. Army’s Ballistic Research Laboratory, the EDVAC was the second general-purpose computer developed at the Moore School of Engineering, following the famous ENIAC. Unlike its predecessor, the EDVAC was a binary machine incorporating a high-speed mercury delay-line memory and the ability to run stored programs. Pres Eckert and John Mauchly, the inventors of the ENIAC, came up with the idea of the EDVAC while working on the earlier machine, and were responsible for much of the EDVAC’s electronic and logical design.

The EDVAC’s 1944 inception date falls three years before the start dates of the other early stored-program computers—the BINAC (1947), the Manchester Baby (1947-48), Cambridge University’s EDSAC (1947), and Australia’s CSIRAC (1948). However, the EDVAC’s completion was delayed by a dispute over patent rights between Eckert and Mauchly and the University of Pennsylvania, which resulted in Eckert and Mauchly’s resignation from the Moore School in 1946 to form their own commercial computer company. After Eckert and Mauchly’s departure the EDVAC project was taken over by other engineers at the school, including George Patterson (editor of the Moore School lectures), R. L. Snyder, L. P. Tabor and Irven Travis. The present report, prepared by these four men, describes the design of a pilot model of the EDVAC named the EDVAC 1.5B, which incorporated automatic addition, subtraction, multiplication, division, and internal checking. “Emphasis is placed on the overall logic, the basic engineering design, and on the principles of operation of the EDVAC” (f. 3). *Very Scarce*—OCLC locates five copies (Univ. of PA; Univ. of FL; Univ. of MN; Wayne State Univ.; Brown Univ.). This copy, which is the only one we have ever seen for sale, was originally owned by Solomon Charp, a professor at the Moore School from 1941 to 1948 involved with ballistics and fire control systems for the U.S. Army program, working alongside the ENIAC and EDVAC groups. 40427

Basis of Arabic & European Medicine & Surgery

120. **Paul of Aegina (fl. 640 AD).** *Opus de re medica, nunc primum integrum latinitate donatum, per Ioannem Guinterium Andernacum [Joannes Guinter (Guinter von Andernach) (1505-74)]. . . . Folio. [40], 47, [9], 39, [9], 127, [9], 48, [8], 24, [8], 83, [9],*



158pp., final blank. Woodcut printer's device on title, woodcut initials by **Geofroy Tory** (c. 1480-1533). Paris: Simon de Colines, 1532. 327 x 219 mm. Late 16th or early 17th century brown-painted parchment, gilt leather label & manuscript paper label, a little rubbed, hinges cracking. Margin of Aa1 & Cc5 restored, a little foxing, browning & soiling, faint dampstain in outer margin of a few leaves towards front but overall fine. Old arms drawn in ink on title margin & 1 or 2 other leaves, 19th century notations on title. \$6000

First Edition in Latin translated by Vesalius's teacher Guinter von Andernach. This is the **best early edition** of the *Epitome* of Paul of Aegina, which appeared for the first time in Latin in three different editions in 1532. See G-M 36 & 5549, citing the nineteenth century English translation, and noting the three Latin editions.

Paul of Aegina was the most important physician of his day and a skillful surgeon. His *Epitome* summarizes Greek medical thought and the Galenic tradition, and was highly important for the transmission of classical medicine to Islamic and European physicians. The *Epitome* is divided into seven books on hygiene, fevers, bodily afflictions, surgery, medi-

cines and poisons. It includes material on dietary therapeutics describing many foods; an analysis of the pulse as a prognostic tool, with a classification of sixty-two varieties of pulse; an excellent discussion of the kidneys, liver and spleen; diseases of the uterus and complications of labor; the first clear description of the effects of lead poisoning, and a discussion of ninety minerals, six hundred plants and one hundred sixty-eight animals from Dioscorides.

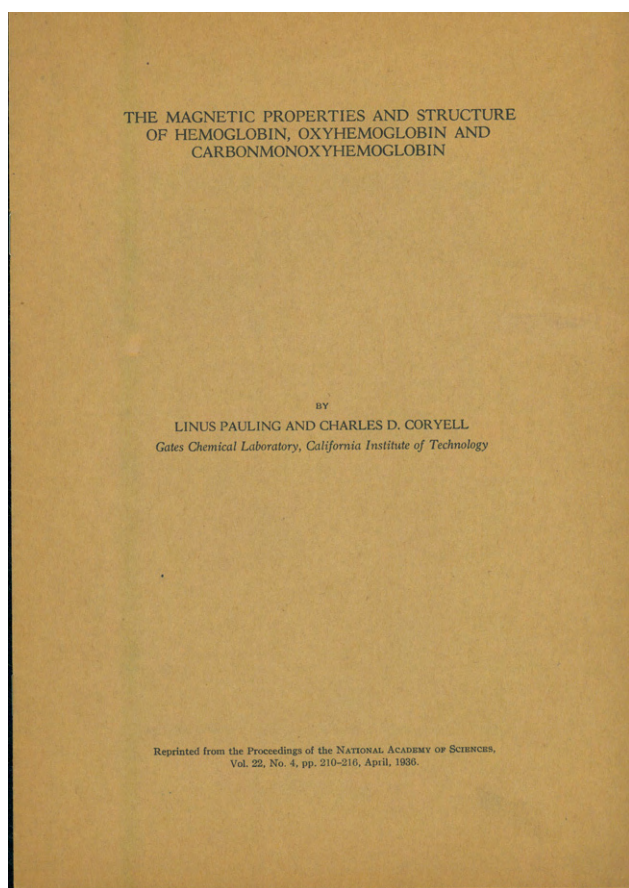
Paul's book on surgery, however, is his single most important contribution. It represents the most complete system of operative surgery to come down from ancient times. Paul gives original descriptions of lithotomy, trephining, tonsillectomy, paracentesis and amputation of the breast. He was one of the earliest writers on plastic surgery, discussing operations on the eyelids, nose, lips and ears. He gives prescriptions for the treatment of burns, discusses military surgery, obstetrics and surgery of the eye.

Because of the completeness of his work, the conciseness and lucidity of his descriptions, and the systematic organization of his books, large portions of [Paul's] writings were incorporated into the texts of the principal Arabic authors. In surgery, in particular, he literally transmitted the entire body of Greek and Roman knowledge to Islam whence it ultimately returned to medieval and pre-Renaissance Europe (Zimmerman & Veith 75).

The Greek *editio princeps* was published in 1528 by Aldus. The first Latin translation to appear in 1532, published at Basel by Cratander, was taken from the Aldine Greek but did not include Paul's surgery. A Giunta edition then appeared at Venice, which included the surgery; however Guinter's edition, which appeared next at Paris, was superior to its predecessors, being based on the collation of additional manuscripts. It was also superior typographically, beautifully printed, with initial letters designed by one of the great typographers of the early period of printing, Geofroy Tory, whose letters have inspired designers ever since. Garrison, *History* 124. DSB. 22359

Pauling's "Crucial Paper" on Hemoglobin

121. **Pauling, Linus (1901-94) & Charles D. Coryell.** The magnetic properties and structure of hemoglobin, oxyhemoglobin and carbonmonoxyhemoglobin. Offprint from *Proceedings of the National Academy of Science* 22 (1936). 210-216pp. Text diagrams. 258 x 177 mm. Original printed wrappers. Fine. Offered with four other papers by Pauling on hemoglobin, as listed below. \$950



First Edition. Pauling and Coryell's "crucial paper" (Judson) describing their experimental research on the structure of hemoglobin and the physical chemistry of its binding of oxygen. In 1935 Pauling became interested in hemoglobin as an object of study, in part because he knew that hemoglobin's changing structure allowed it to carry oxygen to the tissues of the body. Pauling and Coryell found "that hemoglobin that was carrying oxygen and hemoglobin that was not carrying oxygen reacted differently to a magnetic field. Pauling interpreted this finding as showing that the molecular bonds in the hemoglobin without oxygen are weaker, ionic bonds, whereas those in the molecule united with oxygen are stronger, covalent bonds. Finding this difference in the laboratory greatly excited Pauling's interest in identifying the structure of complex organic molecules, especially protein molecules" (Goertzel & Goertzel, *Linus Pauling*, p. 89).

Pauling published several papers on his hemoglobin studies, four of which are included here with the 1936 paper:

Coryell, Pauling & Richard W. Dodson. The magnetic properties of intermediates in the reactions of hemoglobin. Offprint from *Journal of Physical Chemistry* 43 (1939). 825-852pp. Without wrappers. 255 x 176 mm.

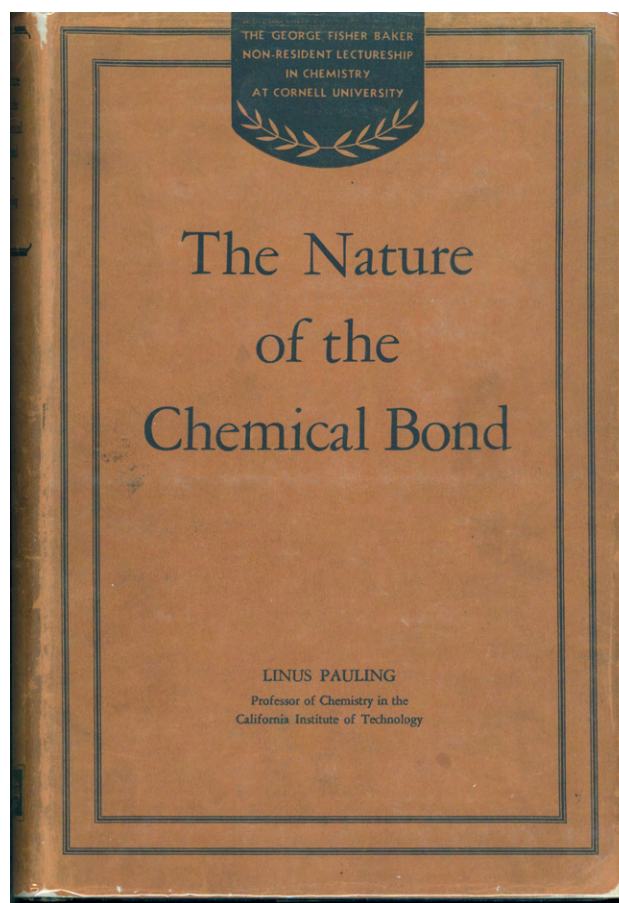
Russell, Charles D. & Pauling. The magnetic properties of the compounds ethylosocyanide-ferrohemoglobin and imid-

azole-ferrihemoglobin. Offprint from *Proceedings of the National Academy of Science* 25 (1939). 517-522pp. 258 x 175 mm. Without wrappers.

Coryell & Pauling. A structural interpretation of the acidity of groups associated with the hemes of hemoglobin and hemoglobin derivatives. Offprint from *Journal of Biological Chemistry* 132 (1940). 769-779pp. 222 x 151 mm. Original printed wrappers, insignificant burn-hole in lower spine.

Pauling. The interpretation of some chemical properties of hemoglobin in terms of its molecular structure. Offprint from *Stanford Medical Bulletin* 6 (1948). 215-222pp. 248 x 177 mm. Lacking wrappers.

Judson, *The Eighth Day of Creation*, pp. 501-2; 683-84. 40490



In the Very Scarce Dust-Jacket

122. **Pauling, Linus (1901-94).** The nature of the chemical bond and the structure of molecules and crystals. 8vo. xiv, 429 [3]pp. Text illustrations. Ithaca, NY: Cornell U. P., 1939. 230 x 151 mm. Original cloth, dust-jacket (light wear, a few chips). Very good copy. \$2250

First Edition. Pauling's classic work sets forth in detail his valence-bond theory based on the quantum-mechanical concept of resonance between two energy states, which led to his highly innovative idea that the hybridization of orbitals (electron waves) between atoms is what makes molecular structure possible. Pauling's work "taught a couple of generations of chemists that the sizes and electrical charges of atoms determine *exactly* [emphasis ours] their arrangement in molecules" (Judson, *The Eighth Day of Creation*, p. 57); in biochemistry, it proved essential to understanding the helical structure of DNA and other complex proteins. Pauling was awarded the Nobel Prize for chemistry in 1954 for his research into the nature of the chemical bond. Judson, *The Eighth Day of Creation*, pp. 51-70. James, *Nobel Laureates in Chemistry*, pp. 368-78; 422-26. Goertzel & Goertzel, *Linus Pauling*, pp. 66-77. 40300

123. **Pauling, Linus (1901-94).** Vitamin C and the common cold. xiii, 112, [2]pp. New York: Bantam Books, 1971. 179 x 105 mm. Original printed soft covers. Fine. **Presentation copy, inscribed by Pauling to Francis O. Schmitt (1903-95) on the first leaf:** "To my friend Frank—Linus 16 January 1972."

\$100

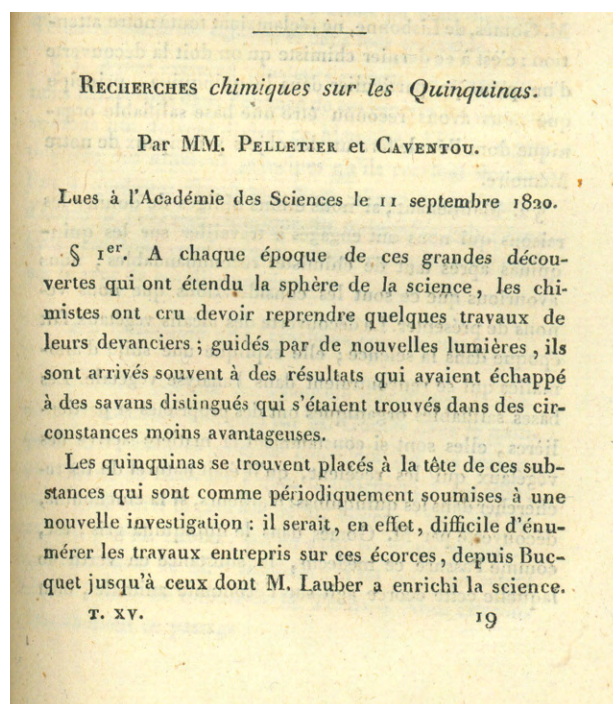
2nd printing of the paperback edition. Inscribed by Pauling to Francis O. Schmitt on the first leaf: "To my friend Frank-- Linus. 18 January 1972." Schmitt, an Institute Professor at MIT, was an authority on electron microscopy and conducted innovative studies on kidney function, tissue metabolism, and the chemistry, physiology, biochemistry, and electrophysiology of the nerve. 40308

124. **Pauling & Ewan Cameron.** Cancer and vitamin C . . . xiv, [2], 238pp. Menlo Park: Linus Pauling Institute, 1979. 234 x 153 mm. Original boards, cloth spine, dust-jacket (a little soiled). **Signed by Pauling and Cameron on tipped-in label.** \$150

First Edition. "A discussion of the nature, causes, prevention, and treatment of cancer, with special reference to the value of vitamin C." 40307

Discovery of Quinine

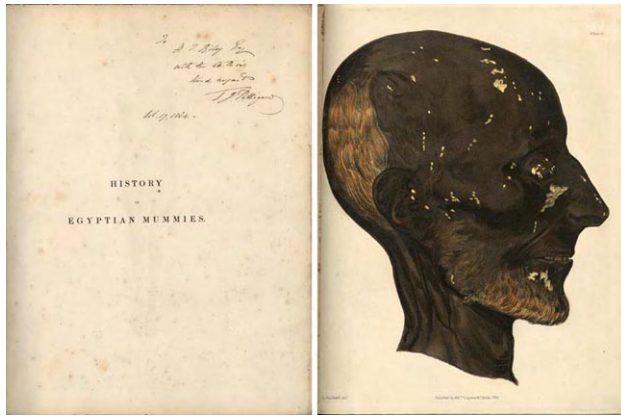
125. **Pelletier, Pierre Joseph (1788-1842) & Caventou, Joseph Bienaimé (1795-1877).** *Recherches chimiques sur les quinquinas.* In *Annales de chimie et de physique* 15 (Nov.-Dec. 1820): 289-318, 337-365. Together 2 whole numbers, 8vo. 225-335, 337-448pp. 3 plates. 220 x 144 mm. (uncut and partly unopened). Original printed wrappers, spines worn & partly defective. Minor dust-soiling and fraying, otherwise very good. \$2750



First Edition. Garrison-Morton 5233. The discovery and isolation of quinine. Between 1818 and 1821, the French chemists Pelletier and Caventou isolated a number of alkaloids from plants, including strychnine (1818), brucine and veratrine (1819), cinchonine and quinine (1820) and caffeine (1821). "The discovery of quinine was by far the most dramatic result of their collaboration, and soon there was worldwide demand for quinine as a therapeutic agent. In a letter written to the Academy of Sciences in 1827, Pelletier and Caventou pointed out that by 1826 a burgeoning French industry was annually producing approximately 90,000 ounces of quinine sulfate from cinchona bark, enough to treat more than a million individuals" (*Dictionary of Scientific Biography*). 40388

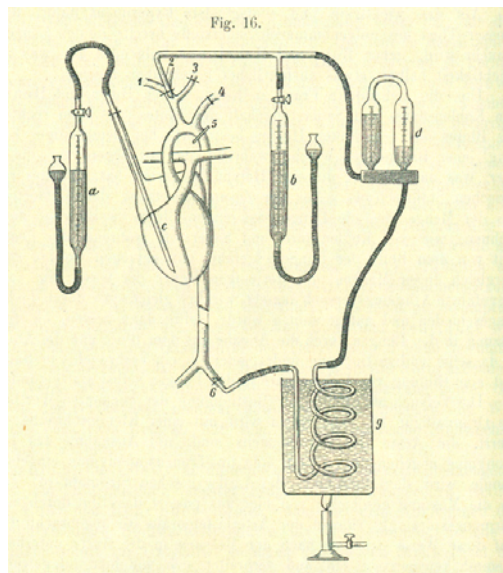
Presentation Copy

126. **Pettigrew, Thomas Joseph (1791-1865).** A history of Egyptian mummies, and an account of the worship and embalming of the sacred animals of the Egyptians; with remarks on the funeral ceremonies of different nations. 4to. xxi [1], 264 [2, incl. errata]pp. 13 engraved plates (4 hand-colored), mostly after drawings by **George Cruikshank (1792-1878)**. London: Longman, 1834. 297 x 230 mm. Original boards, cloth backstrip (spine almost entirely defective), printed paper label on front cover. Minor foxing & staining, mostly confined to the plates. **Presentation copy, inscribed by the author on the half-title as follows:** "To H. T. Riley Esq. with the Author's kind



regards. T. J. Pettigrew Oct. 17, 1864." Very good copy. \$1750

First Edition. "One of the most valuable works on the subject extant. It is a monument of exact observation, and considering the state of archaeological knowledge at the time, it is in every way admirable" (Dawson, *Bibliography of Works Relating to Mummification in Egypt* [1929], 97). Surgeon and medical writer (he vaccinated Queen Victoria) as well as antiquary, Pettigrew was one of the founding members of the British Archaeological Society, whose early meetings were held in his house. His *History of Egyptian Mummies* is illustrated mostly from drawings by the famous artist / caricaturist George Cruikshank, best known as the illustrator of Dickens' novels. See G-M 6711, Pettigrew's 4-vol. collection of medical biographies. DNB. 30345



127. **Plesch, Johann.** Hämodynamische Studien. In *Zeitschrift für experimentelle Pathologie und Therapie* 6 (1909): 380-618, plus 2 folding tables. Whole volume. vi, 916pp. 7 plates. 253 x 163 mm. Half cloth, marbled

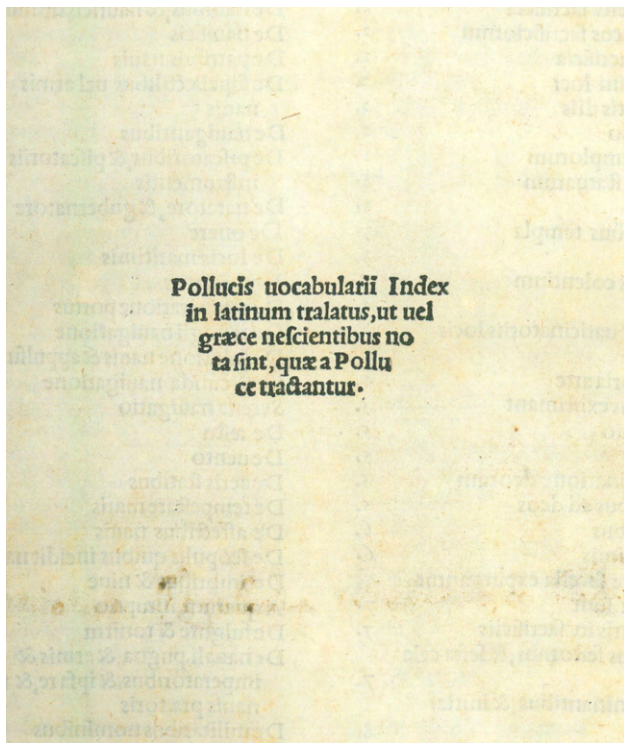
boards ca. 1909, in modern slipcase. Library stamp on title. Very good. \$300

First Edition. This early work on the quantitative measurement of blood hemoglobin describes the method of determining concentration and includes text figures of the instruments as well as two folding data tables. "In 1906, Johann Plesch of Budapest, working in Berlin, described a selenium cell-galvanometer for measuring hemoglobin based on the principle that the color of the solution was inversely proportional to its concentration. In due course, increasingly sophisticated colorimeters, comparators, photometers, and spectrophotometers were developed to measure color intensity and light absorbance" (Bud and Warner, *Instruments of Science* [1998], p. 310). 40486

"Objects in Daily Life, the Theater, Politics . . . and Numerous Fragments from Lost Works"

128. **Pollux, Julius [Poludeukes, Ioulios] (fl. 2nd cent. A.D.).** [Onomasticon] Pollucis vocabularii index in latinum tralatus, ut vel graece nescientibus nota sint . . . Folio. [104]ff. Venice: apud Aldum, April 1502. 296 x 201 mm. 18th or early 19th cent. gilt-ruled calf, a little rubbed, rebacked preserving original gilt spine. Fine copy. \$17,500

Editio princeps. Pollux, a Greek grammarian and sophist from Alexandria, was appointed professor of rhetoric at the Academy in Athens by the Roman Emperor Commodus (son of Marcus Aurelius). According to Philostratus's *Lives of the Sophists*, Pollux was given this post on account of his melodious voice. Pollux was the author of numerous rhetorical works, of which only a few titles survive, and the *Onomasticon*, a thesaurus of Attic Greek synonyms and phrases arranged thematically in ten books. "It supplies in passing much rare and valuable information on many points of classical antiquity—objects in daily life, the theater, politics—and quotes numerous fragments of lost works. Pollux was probably the person satirized by Lucian as a worthless and ignorant person who gains a reputation as an orator by sheer effrontery, and pilloried in his *Lexiphanes*, a satire upon the affectation of obscure and obsolete words" (*Encyclopaedia Britannica* [1999]). The *editio princeps* of Pollux's *Onomasticon*, issued by Aldus Manutius in 1502, made the work widely available to Renaissance scholars and antiquaries, and anatomists of the period drew on the *Onomasticon* for obscure Greek words to describe parts of the body. The *Onomasticon* was a valuable source of information for several important nineteenth century works of classical scholarship, and has continued to attract the interest of researchers in a

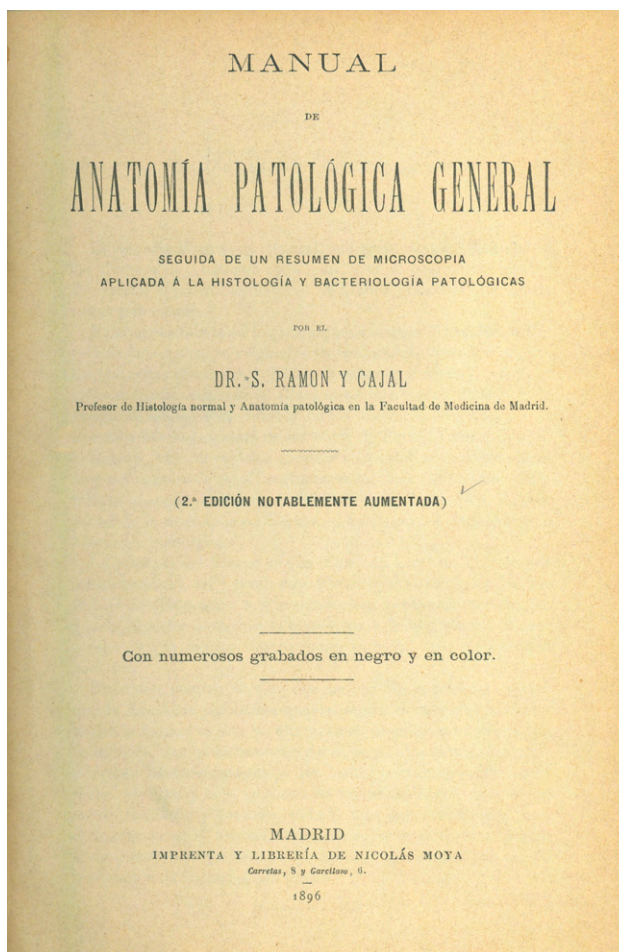


variety of fields—in 2004, John H. Dierkx published an article on “Dermatologic terms in the *Onomasticon* of Julius Pollux” in *The American Journal of Dermatopathology*. Adams P-1787. Ahmanson-Murphy 54. Renouard, pp. 32-33. 40354

First Description of Ependymal Cells

129. **Purkyne (Purkinje), Jan Evangelista (1787-1869)**. Ueber Flimmerbewegungen im Gehirn. In *Archiv für Anatomie, Physiologie und wissenschaftliche Medicin* 3 (1836): 289-291. Whole number, 8vo. xvii-lxiv, 225-304pp. 4 plates. 222 x 138 mm. (uncut). Original printed wrappers. Fine copy. From the library of medical historian Walter Pagel (1898-1983), with his bibliographical notes on a slip tipped to the inside front wrapper. \$1250

First Edition, journal issue. Purkyne was the first to observe and describe the ependymal cells, which are epithelial cells lining the ventricles in the brain and the central canal in the spinal cord. The cells, whose apical surfaces are covered in cilia and microvilli, are involved in the production and circulation of cerebrospinal fluid. This issue of *Müller's Archiv* also contains A. O. Schönlein's “Ueber Crystalle im Darmcanal bei Typhus abdominalis,” on crystals found in the gut in typhoid fever; and Rudolph Wagner's “Die Genesis der Samenthierchen,” on the formation of spermatozoa. McHenry, *Garrison's History of Neurology*, p. 153. 40380



130. **Ramon y Cajal, Santiago (1852-1934)**. Manual de anatomía patológica general . . . [6], 495pp. Text illustrations (some in color). Madrid: Nicolas Moya, 1896. 241 x 158 mm. Quarter morocco gilt, marbled boards ca. 1896, edges and corners rubbed. Light browning. \$950

Second edition, enlarged; first published 1890. In the late 1880s Cajal went to teach at Barcelona. He determined that he needed better grounding in pathological anatomy, and spent leisure hours on autopsies and experiments, postponing further work on the nervous system which, when he took it up again, would lead to his epochal *Nuevo concepto* of 1892 (Garrison-Morton 1287). In the meantime, his pathological anatomy studies resulted in this textbook that served Spanish students through seven editions. Pp. 374-83 covers lesions of the nervous system, while pp. 423-84 treats microtechnique and staining in histology and bacteriology. The section on microtechnique is half again as large as the one in the first edition. 40040

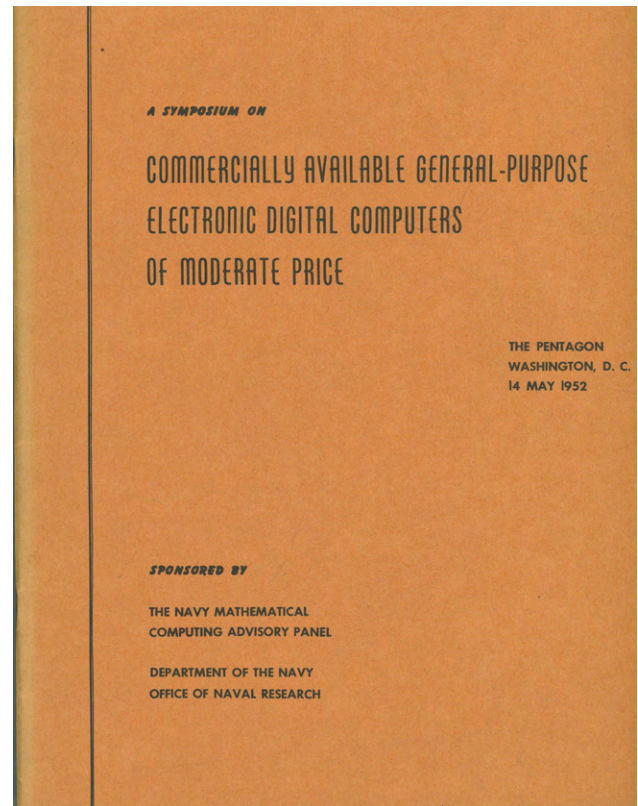
Ray's Ornithology

131. **Ray, John (1627-1705)**. Francisci Willughbeii . . . ornithologiae libri tres, in quibus aves omnes hacte-



nus cognitae in methodum naturis suis convenientem redactae accurate describuntur. . . . Folio. [12] 307 [5]pp. 77 engraved plates, 2 fold. tables. London: J. Martyn, 1676. 348 x 222 mm. Old speckled calf, spine and corners almost invisibly repaired. Light dampstaining in inner margins, tiny rust-holes in 1 or 2 leaves, otherwise a fine, crisp copy. Engraved armorial bookplate of Sir Edward Winnington. \$3750

First Edition. Ray and Willughby were the first ornithologists to discard the Aristotelian principles of classification by function, replacing them with a morphological system based on beak form, foot structure and body size that reflected the true relationships even better than Linnaeus's "natural system" of sixty years later. The credit for this system almost certainly belongs to Ray, who prepared the final version of the *Ornithologia* from notes left at Willughby's death, and who had done the major part of the observations and records during their years of partnership. In an attempt to bring order out of the chaos of tradition, Ray collated his and Willughby's observations against those recorded by all previous writers, eliminating duplicate species, species vaguely described or reported on hearsay, and species that were clearly fabulous. An English version, which Ray also prepared, was published in 1678. Keynes, *Ray*, 39. Raven, *John Ray*, ch. 12. Wing W-2879. 35207



132. [Rees, Mina (1902–1997)]. Symposium on commercially available general-purpose electronic digital computers of moderate price. iii, [1], 41 [1]pp. Text illustrations. 260 x 200 mm. The Pentagon, Washington, D.C., 14 May 1952. [Washington, D.C.: U. S. Department of Commerce, Office of Technical Services], 1952. Original printed wrappers, spine slightly faded. Fine copy. \$450

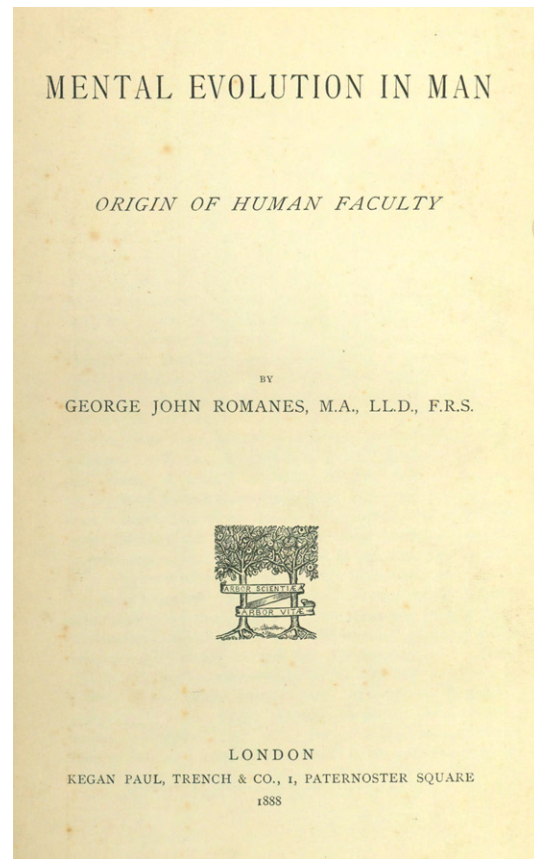
First Edition. The first survey of electronic digital computers published in the United States grew out of a symposium on moderately priced computers (i.e., under \$100,000) arranged by the Naval Mathematical Computing Advisory Panel under the chairmanship of Mina Rees. Rees, who had a Ph.D. in mathematics from the University of Chicago, served during World War II as assistant to the chief of the Office of Scientific Research and Development's Applied Mathematics Panel, and after the war was invited to establish the mathematical research program at the United States Navy's Office of Naval Research (ONR). During her years with ONR, Rees, acting for the navy, participated in the United States government's sponsorship of the nascent electronic computer industry. "In addition to providing wide support for university research of basic importance to the emerging computer field, ONR collaborated with the National Bureau of Standards in supporting and directing its program. This program claims, as one of its achievements, funding the production of the first commercially produced electronic computer, the Census Univac that was delivered in 1951" (Lee 1995, 582). Rees remained with ONR until

1953, when she left to become dean of the faculty at Hunter College. In 1961 she was appointed professor and the first dean of graduate studies at the newly founded City College of New York, where she remained until her retirement in 1972. In 1970 she became the first woman to be elected president of the American Association for the Advancement of Science. *Origins of Cyberspace* 853. 40392



133. **Roget, Peter Mark (1779-1869).** Portrait photograph, from Maull and Polyblank's *Photographic Portraits of Living Celebrities* (1856-60). 305 x 253 mm. Small tear in one margin, slight soiling, but very good. \$1250

Photograph of Peter Mark Roget, best known as the compiler of *Roget's Thesaurus* (first ed. 1852), which has remained in print since its first publication. He is also known for having invented the log-log slide rule (1815), and for his 1824 paper entitled "Explanation of an optical deception in the appearance of the spokes of a wheel when seen through vertical apertures," which dealt with persistence of vision in regard to moving objects; this paper is one of the foundation works in the history of cinema. Roget trained as a physician, and helped to found both the School of Medicine at the University of Manchester, and the Medical and Chirurgical Society of London, which later became the Royal Society of Medicine. He was the author of the fifth Bridgewater Treatise, *Animal and Vegetable Physiology Considered with Reference to Natural Theology* (1834). 40218

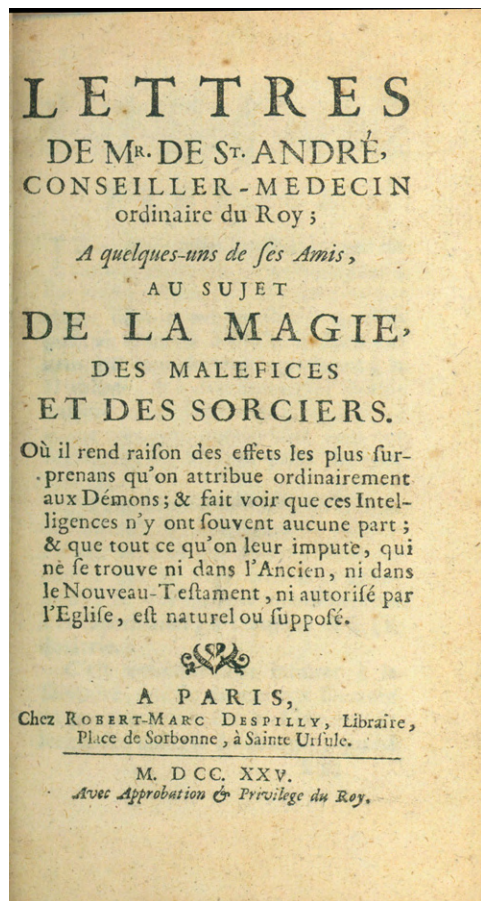


134. **Romanes, George John (1848-94).** *Mental evolution in man: Origin of human faculty.* viii, [2], 452, [32, pubs. adverts.]pp. Folding frontispiece plate. London: Kegan Paul, Trench, 1888. 221 x 143 mm. Original cloth, a little worn & shaken, spine faded. Occasional faint foxing. \$275

First Edition. Romanes met Darwin in 1874 and became one of Darwin's closest friends. "One of the most brilliant of the second generation of British Darwinists" (*Dictionary of Scientific Biography*), Romanes laid the foundation of comparative psychology, a discipline concerned with the evolution and development of behavior in both humans and animals. Romanes had access to Darwin's unpublished manuscripts after Darwin's death, and incorporated some of Darwin's material in his own works. The present work is a sequel to Romanes's *Mental Evolution in Animals, with a Posthumous Essay on Instinct by Charles Darwin* (1883). 40432

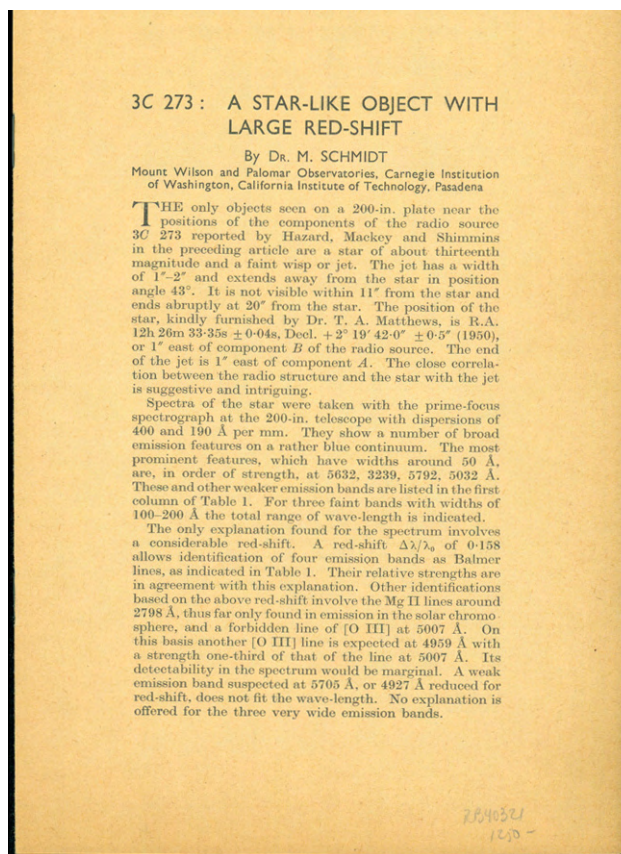
135. **Roughton, F. J. W. and J. C. Kendrew.** *Haemoglobin.* A symposium based on a conference held at Cambridge . . . in memory of Sir Joseph Barcroft. xii, 317pp. Plates, text illustrations. 247 x 152 mm. Original cloth. Very good copy. \$200

First Edition. Includes contributions by Linus Pauling, Jeffries Wyman, Max Perutz, John Kendrew and Felix Haurowitz. 40492



136. **Saint-André, François de.** *Lettres . . . au sujet de la magie, des malefices et des sorciers.* 12mo. [8], 446, [2]pp. Paris: Robert-Marc Despilly, 1725. 158 x 91 mm. Mottled calf c. 1725, gilt spine, light rubbing & wear. Piece torn from front free endpaper, light browning, otherwise very good. \$500

First Edition. St.-André's work debunked superstitious belief in demons as a "popular error," one that insulted Divine authority by attributing supernatural powers to beings other than God. He attempted to show that some of the acts attributed to demons were either natural phenomena or the result of suggestion. St.-André was a physician to Louis XIV; he also published works under the name of François André. Hirsch. NBG. Caillet 9750. 40395

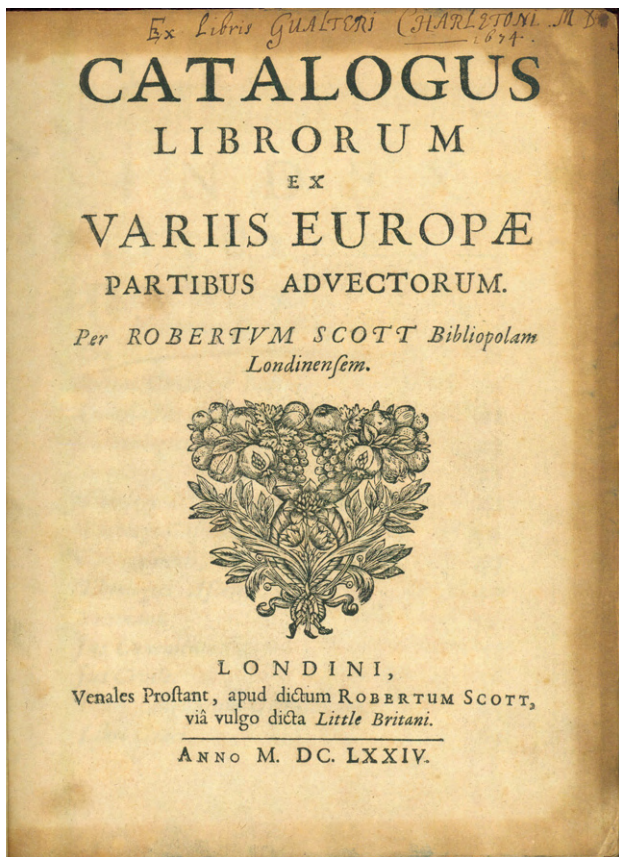


Quasars

137. **Schmidt, Maarten (b. 1929).** 3C 273: A star-like object with large red shift. Offprint from *Nature* 197 (1963). 5, [1]pp. 213 x 138 mm. Without wrappers as issued. Light browning. \$1250

First Edition, Offprint Issue. Schmidt's paper announced his discovery of the first quasar (short for quasi-stellar object), and showed "that these starlike objects exhibit ordinary hydrogen lines, but at redshifts far greater than those observed in stars" ("The Bruce Medallists: Maarten Schmidt" [internet reference]). The large red shift exhibited by object 3C 273 indicated that it lay far beyond the boundaries of the Milky Way. Schmidt's further researches into the evolution and distribution of quasars showed that quasars were more abundant when the universe was young, a finding that contradicted then-current steady state models of the universe, and was a major reason for these models' decline in favor. Schmidt's discovery of quasars is featured in Garwin and Lincoln's *A Century of Nature* (2003; see pp. 125-127) as one of "twenty-one discoveries that changed science and the world."

The offprint of Schmidt's paper also includes two related papers: J. B. Oke's "Absolute energy distribution in the optical spectrum of 3C 273" and Greenstein and Matthews' "Red-shift of the unusual radio source: 3C 48." 40321



From the Library of Walter Charleton

138. **Scott, Robert (fl. 1661-91).** Catalogue librorum ex variis Europae partibus advectorum. 4to. [4]. 206pp. London: Robert Scott, 1674. 219 x 160 mm. Full sheep in 17th-century style by Bernard Middleton. Some browning & foxing, but very good. From the library of the English physician and polymath **Walter Charleton** (1620-1707), with his signature, dated 1674, on the title. \$4500

First Edition of this significant early English bookseller's catalogue, a major document on the history of the book trade in seventeenth century London. Scott, bookseller to Charles II, was notably an importer and his catalogue lists ca. 6500 Continental books by subject or type (Bibles, works in Greek, histories, science, literature, etc.). His catalogue reflects the reading tastes of the Caroline court and its adherents—one of whom was **Walter Charleton**, promoter of atomism and mechanical philosophy in Britain (*Physiologia Epicuro-Gassendo-Charltoniana*, 1654), author of the first English book on physiology (*Natural History of Nutrition, Life and Voluntary Motion*, 1659), and founding member of the Royal Society. Wing S-2078. Taylor, *Book Catalogues*, pp. 71-72; 147. Rostenberg, "Robert Scott, Restoration sta-

tioner and importer," *Pub. Bibl. Soc. Amer.* 48 (1954): 49-76. 14204

Semmelweis's "Open Letters"

139. **Semmelweis, Ignaz Philipp (1818-65).** (1) Zwei offene Briefe an Dr. J. Spaeth, Professor der Geburtshilfe an der k. k. Josefs-Akademie in Wien, und an Hofrath Dr. F. W. Scanzoni, Professor der Geburtshilfe zu Würzburg. 8vo. 21, [1]pp. Pest: Gustav Emich, 1861. 190 x 128 mm. (2) Offener Brief an sämtliche Professoren der Geburtshilfe. 8vo. viii, 92pp. Ofen: K. ungar. Universitäts-Buchdruckerei, 1862. 203 x 137 mm. Together 2 items, in original wrappers, wrappers of no. (2) a little worn, soiled and chipped, spine neatly reinforced with cloth tape, upper portion of no. (2)'s title-leaf cut away not affecting text. Minor soiling. The two pamphlets preserved in a cloth box. \$6500

In the 1840s, while serving as house officer of Vienna's First Obstetrical Clinic, Semmelweis was struck by the fact that the clinic exhibited a 13.10 percent mortality rate from puerperal fever, while the Second Obstetrical Clinic, which trained midwives, had a mortality rate over five times lower. After the death of one of his friends from blood poisoning following a wound from an autopsy knife, Semmelweis made the connection between cadaveric contamination and puerperal fever, which displays a pathology similar to the septicemia that had killed his friend. He concluded that the doctors and students of the First Clinic carried the infection on their hands from the autopsy room to the maternity wards and conveyed it to their patients during manual examination. He instituted a program of hand-washing in chlorinated lime between autopsy work and examination of patients; one month later, the First Clinic's mortality rate had dropped by ten percent. In 1847 and 1848 Ferdinand von Hebra, editor of the *Zeitschrift der k.k. Gesellschaft der Aerzte zu Wien*, announced Semmelweis's discovery in two issues of the *Zeitschrift* (see G-M 6275 and PMM 316b), comparing its significance to Jenner's discovery of vaccination. However, Semmelweis was at first reluctant to publish anything on his methods, with the result that they were widely misunderstood and criticized.

Finally, fourteen years after initiating his system of prophylactic hand-washing, Semmelweis published *Die Aetiologie, der Begriff und die Prophylaxis des Kindbettfiebers* (1861; see G-M 6277), containing his observations on the etiology, contagiousness and prevention of puerperal fever and emphasizing the importance of hand-washing. Although the book's information and conclusions were of the first importance, its publication failed to bring about a widespread acceptance of Semmelweis's views and methods; instead, the connection he had made between cadaverous infection and



puerperal fever was rejected by a large proportion of the medical establishment. *Die Aetiologie* was subject to several unfavorable reviews, to which Semmelweis responded with a series of open letters, published in pamphlet form in 1861 and 1862, in which he bitterly attacked his critics.

He wrote his famous Open Letters to Joseph Späth, Friedrich Wilhelm Scanzoni von Lichtenfels and Siebold in 1861 full of desperation and fury for reluctance to accept his doctrine. He called upon Siebold to arrange a meeting of German obstetricians somewhere in Germany to provide a forum for discussions on puerperal fever where he would stay “until all have been converted to his theory.” (Hauzman, Erik E [2006]. “Semmelweis and his German contemporaries”. 40th International Congress on the History of Medicine, ISHM 2006. [Internet reference]).

The abusive language Semmelweis used in these letters was an indicator of his increasing mental instability. He eventually suffered a mental breakdown in 1865 and died the same year—ironically, due to septicemia from an infected finger.

Semmelweis issued two “Open letter” pamphlets in 1861, one addressed to Drs. Joseph Späth and F. W. Scanzoni, and the other to Drs. Eduard von Siebold and Scanzoni. We are offering the first one here. The 1862 “Open letter” is addressed simply to “Professors of Obstetrics”. Norman 1928 (no. [2]). 40285

Horseless Carriage

140. **Sennett, Alfred Richard.** “Carriages without horses shall go.” Being a reprint of a paper on horseless road locomotion. . . to which is added remarks on the future of horseless road locomotion; notes on the new enactment; the Locomotives on Highways Act, 1896; evolution in modes of travel; the “Engineer” competition 1897; the local government board regulations; and

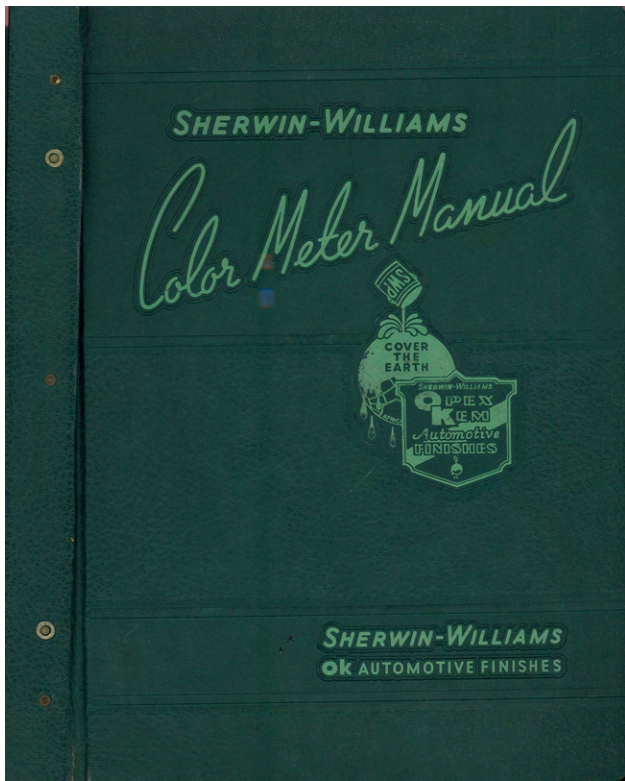


other matter. 8vo. xvi, 131, [1]pp. Frontispiece and 30 wood-engraved and half-tone plates. London: Whitaker & Co., 1896. 211 x 139 mm. Original blue cloth lettered in aluminum on front cover and spine. Spine a bit faded and stained, a few spots on back cover. Occasional minor soiling, otherwise very good. *Presentation copy*, inscribed on the front endpaper: “With the Compts. of the Author.” \$2000

First Edition of one of the earliest books on the automobile, especially remarkable for its many illustrations of early “horseless carriages.” Norman 1931. See Dibner 184. 38348.

141. **Sherwin Williams Co.** Sherwin-Williams color meter manual. Sherwin-Williams Opex Kem automotive finishes [cover title]. Loose-leaf binder. 4to. Ca. 800 unnumbered pages, including approx. 100 color charts with tipped-on color chips. Cleveland: Sherwin-Williams Co., 1946. 278 x 217 mm. Original embossed and printed cloth, very slightly worn. A few edges frayed, some color chips loosening and a very few lacking, minor offsetting from color chips, otherwise a fine copy. Library of Congress copyright deposit stamp on verso of first leaf. \$2250

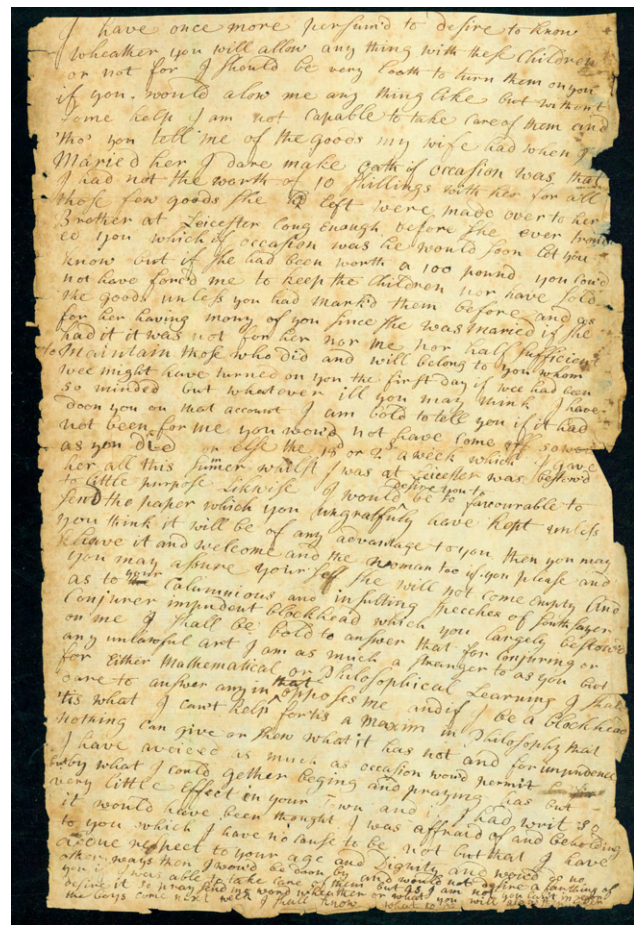
Extremely rare color-match guide to automotive paint finishes produced by Sherwin-Williams for eighteen American car manufacturers between 1936 and 1946 (there are no guides for the years 1943-45, during which time American automobile factories were converted by the U. S. government to the manufacture of war materiel). The manufacturers include Buick, Cadillac-LaSalle, Chevrolet, Chrysler,



DeSoto, Dodge, Ford-Mercury, Graham, Hudson, Hupmobile, Lincoln-Zephyr, Nash-LaFayette, Oldsmobile, Packard, Plymouth, Pontiac, Studebaker, and Willys; for each of these, there is a separate section containing color chip sheets and formulas for mixing the colors. Also included is a section on custom colors and a section on commercial vehicles, containing proprietary colors used by such companies as Allied Van Lines, Bell Telephone Co., Coca-Cola, Rainier Brewing, etc., as well those used for military and government vehicles. A 40-page “Laboratory Controlled Weathering Chart” gives instructions on how to blend touch-up colors to match weathered paint. Commercial ephemera such as this, especially so extensive and in such fine condition, is *extraordinarily rare*. Neither OCLC, RLIN nor NUC cite this manual; the two or three Sherwin-Williams automobile color manuals that these sources do list are all under 50 pages long, and represented by only a handful of copies. Our manual is of obvious interest to anyone interested in collecting and restoring classic cars. 37460

“Your Calumnious and Insulting Speeches of Soothsayer Conjuror Impudent Blockhead”

142. **Simpson, Thomas (1710-61)**. Autograph letter (unsigned) to Joseph Paget (1700-1787). N.p., n.d. (after 1730). 1 page. 291 x 189 mm. Marginal fraying slightly affecting some words of text, some foxing and



browning. Docketed on the verso: “The letter of Simpson the Mathematician to Joseph Paget of Ibstock.”

\$950

An extraordinary letter from the mathematician Thomas Simpson illuminating some of the problems in his marriage and personal life. Simpson, the son of a weaver, developed an interest in mathematics through his studies in astrology. He began teaching the subject in Nuneaton, Warwickshire in 1725, when he was fifteen. He married his landlady, a Nuneaton widow, in 1730; three years later the couple was forced to flee to Derby “after [Simpson] or his assistant had frightened a girl by dressing up as a devil during an astrology session” (*Oxford Dictionary of National Biography*). By 1736 Simpson had moved to London, where he began contributing mathematical articles to the *Ladies’ Diary*; in 1737 he published his first book, *A New Treatise of Fluxions*. After this Simpson wrote several other works, including *The Doctrine and Application of Fluxions* (1750), considered to be the best eighteenth-century work on Newton’s version of the calculus, and “On the Advantage of Taking the Mean of a Number of Observations, in Practical Astronomy” (*Phil. Trans.* 49 [1855]), containing the first attempt at a mathematical proof of the law of large numbers. He was elected a member of the Royal Society in 1745.



Charles Hutton's biographical memoir of Simpson, appended to the 1792 edition of Simpson's *Select Exercises for Young Proficients in the Mathematicks*, hints at difficulties created for Simpson by "the misconduct of his family." Some of this misconduct is alluded to in Simpson's letter. Written to Joseph Paget, a member of the landed gentry in Leicestershire, the letter suggests that Paget may have fathered children on Simpson's wife prior to her marriage to Simpson:

I have once more persum'd to desire to know wheather you will allow any thing with these children or not for I should be very loath to turn them on you if you would allow me any thing like but without some help I am not capable to take care of them and tho you tell me of the goods my wife had when I married her I dare make oath if occasion was that I had not the worth of 10 shillings with her for all those few goods she had left were made over to her brother at Leicester long enough before she ever troubled you . . . but if she had been worth a 100 pound you cou'd not have forc'd me to keep the children nor have sold the goods unless you had mark'd them before and as for her having mony of you since she was married if she had it it was not for her nor me nor half sufficient to maintain those who did and will belong to you whom wee might have turned on you the first day if wee had been so minded but

whatever ill you may think I have doon you on that account I am bold to tell you if it had not been for me you wou'd not have come off so well as you did or else the 18d or 2s a week which I gave her all this summer whilst I was at Leicester was bestow'd to little purpose.

The letter also touches on Simpson's reputation as a master of the occult:

. . . as to your calumnious and insulting speeches of soothsayer conjurer impudent blockhead which you largely bestow'd on me I shall be bold to answer that for conjuring or any unlawful art I am as much a stranger to as you but for either mathematical or philosophical learning I shall dare to answer any in that opposes me. . . .

Oxford Dictionary of National Biography. Burke, *A Genealogical and Heraldic History of the Landed Gentry of Great Britain* (1871), p. 1042. 40467

143. **Smith, William (1769-1839)**. Geological map of Suffolk. Hand-colored engraved map. London: J. Cary, Sept. 1, 1819. 548 x 661 mm. Fine apart from a few tiny marginal tears. \$1750

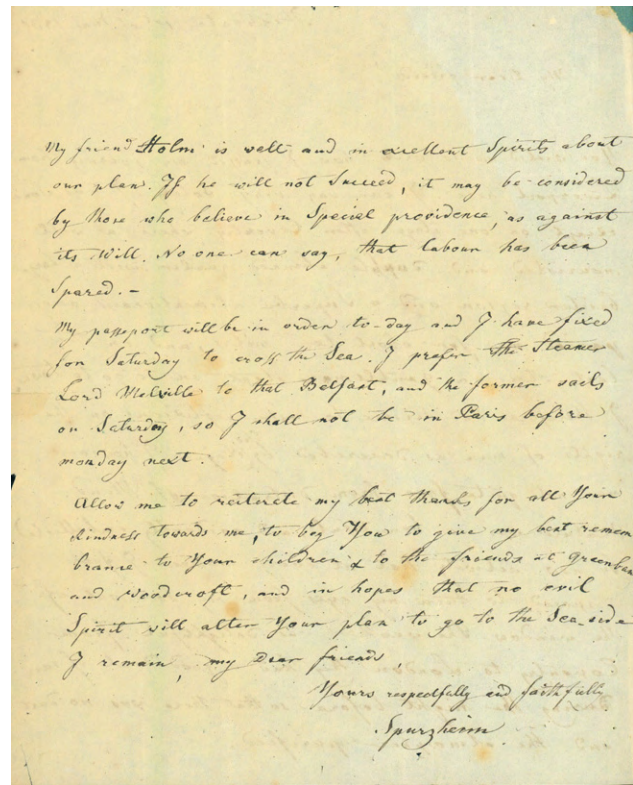
First Edition. Smith's geological map of the county of Suffolk in England was issued in two ways: as a separate publication, and as one of the maps in the first part of his *New*

Geological Atlas of England and Wales (1819). "The maps used were the large county maps engraved by Cary for his *New English Atlas* (first issued in 1809), in their 1818 state. . . . Each map is coloured geologically, and arranged outside the boundaries of the county are the names of the strata and their characteristics, each name with a number corresponding to those on the "Geological Table" [Smith's *Geological Table of British Organized Fossils*, 1817], and a small tabled coloured to match the colour of the stratum on the map" (Eyles, p. 102).

A practicing surveyor and amateur geologist, Smith observed and documented English strata for many years, and in doing so came to recognize two essential facts: first, that the strata of England appear in a regular succession, and second, that many individual strata have a characteristic fossil content that can be used to distinguish them from other lithologically similar strata. On the basis of these discoveries Smith is recognized as the founder of stratigraphical geology. See Eyles, "William Smith (1769-1839): A bibliography of his published writings, maps and geological sections," *Journal of the Society for the Bibliography of Natural History* 5 (1969), no. 25. 40494

144. **Spurzheim, Johann Gaspar (1776-1832).** (1) Autograph letter signed to an unidentified correspondent [Mr. and/or Mrs. William Rathbone of Liverpool]. Highgate, June 1, 1831. 2pp. 230 x 185 mm. Fore-edge a bit frayed, light browning, small pin-holes in upper margin. (2) Autograph letter signed to Mrs. Rathbone. Paris, Oct. 1831. 3-1/4pp. 257 x 202 mm. Lacuna where seal was broken affecting one word of text, tiny marginal tear in first leaf, light soiling along folds. (3) Obituary notice of Dr. Spurzheim. 1 page plus integral blank. Boston, November 12, 1832. 250 x 205 mm. Docketed. (4) **Jackson, James (1777-1867).** [Letter to the editor of the Boston *Daily Advertiser & Patriot* describing Spurzheim's final illness.] Boston, November 15, 1832. Newspaper cutting measuring 560 x 111 mm. (5) **Pierpont, John (1785-1866).** For the funeral of Dr. Spurzheim. Autograph manuscript signed. 2pp. plus integral blank. Boston, October 6, 1845. 230 x 187 mm. Together 5 items. \$950

Collection of materials by and relating to J. G. Spurzheim, co-developer with Gall of the pseudoscience of phrenology, which holds that a person's character and personality traits can be determined by reading the bumps and fissures of the skull. Phrenology was very popular in the nineteenth century, and is credited with furthering the development of neuroscience by promoting the concept of localization of function in the brain. Spurzheim collaborated with Gall on several phrenological works and later set up on his own as a lecturer and writer on phrenology, traveling extensively throughout Britain and Europe. In 1832 Spurzheim



embarked on a lecture tour of the United States, but contracted typhoid fever in Boston and died there on November 10. The city staged an elaborate public funeral for him, and erected a monument to him in Mount Auburn Cemetery, Cambridge.

Spurzheim's letters to the Rathbones of Liverpool are full of details illuminating his life as a traveling lecturer. In the first letter he writes:

You wished me to write how I passed my journey from Liverpool here. I can say very solely [sic]. I was alone except on one stage after Coventry, where a well-nourished and double-chinned Quaker, with a large basilar region and a superb alimentiveness [a phrenological term] accompanied me for about ten miles . . .

Both letters mention Spurzheim's friend J. D. Holm, a Swedish-born phrenologist notorious for having stolen the philosopher Emanuel Swedenborg's skull from its coffin in 1816:

My friend Holm is well and in excellent spirits about our plan. If he will not succeed, it may be considered by those who believe in Special Providence, as against its will. . . (June 1 letter).

I have not heard from my friend Holm since a good while, but I am sure, he is working in the mean time. I even wish that I can stay during the winter quiet in Paris in order to give an impulse to the study of phrenology (Oct. letter).

Spurzheim and Holm formed a collection of over 400 skulls and casts of skulls which was later donated to the Boston Phrenological Society; this is most likely the “plan” Spurzheim refers to here.

During his final illness Spurzheim was attended by James Jackson, co-founder of the Massachusetts General Hospital and professor at Harvard Medical School. Jackson’s long account of Spurzheim’s decline and death, published in the Boston *Daily Advertiser & Patriot*, is included in this collection. Also included is an autograph copy of “For the Funeral of Dr. Spurzheim,” a poem composed for the occasion by John Pierpont, author of *The Airs of Palestine* (1816) and *Anti-Slavery Poems* (1843). Pierpont copied this poem for Mrs. Rathbone in 1845, signing it “with the respects and grateful remembrances of Jno. Pierpont.” 40465

Relationship of Information to the Physical World

145. **Szilard, Leo (1898-1964).** Über die Entropieverminderung in einem thermodynamischen System bei Eingriffen intelligenter Wesen. In *Zeitschrift für Physik* 53 (1929): 840-856. Whole volume. vii, 889pp. Text illustrations. 223 x 152 mm. Library buckram. Fine. Embossed library stamp of the Carnegie Institution of Washington, Mount Wilson Laboratory on the front free endpaper, library call number on spine. Boxed. \$3750

First Edition of the founding document of information theory. In “Über die Entropieverminderung in einem thermodynamischen System bei Eingriffen intelligenter Wesen” [On the reduction of entropy in a thermodynamic system by the intervention of intelligent beings], Szilard described a theoretical model that served both as a heat engine and an information engine, establishing the relationship between information (manipulation and transmission of bits) and thermodynamics (manipulation and transfer of energy and entropy). He was one of the first to show that “Nature seems to talk in terms of information” (Seife, *Decoding the Universe* [2007], p. 77).

In his paper Szilard addressed the problem of “Maxwell’s demon,” a thought experiment posed by James Clerk Maxwell in his *Theory of Heat* (1871) as a challenge to the second Law of Thermodynamics. This law states that the entropy of an isolated system not in equilibrium will tend to increase over time, reaching its maximum level at equilibrium. Maxwell speculated that

if we conceive of a being whose faculties are so sharpened that he can follow every molecule in its course, such a being, whose attributes are as essentially finite as our own, would be able to do what is impossible to us. For we have seen that molecules in a

Über die Entropieverminderung in einem thermodynamischen System bei Eingriffen intelligenter Wesen.

Von L. Szilard in Berlin.

Mit 1 Abbildung. (Eingegangen am 18. Januar 1928.)

Es wird untersucht, durch welche Umstände es bedingt ist, daß man scheinbar ein Perpetuum mobile zweiter Art konstruieren kann, wenn man ein Intellekt besitzendes Wesen Eingriffe an einem thermodynamischen System vornehmen läßt. Indem solche Wesen Messungen vornehmen, erzeugen sie ein Verhalten des Systems, welches es deutlich von einem sich selbst überlassenen mechanischen System unterscheidet. Wir zeigen, daß bereits eine Art Erinnerungsvermögen, welches ein System, in dem sich Messungen ereignen, auszeichnet, Anlaß zu einer dauernden Entropieverminderung bieten kann und so zu einem Verstoß gegen den zweiten Hauptsatz führen würde, wenn nicht die Messungen selbst ihrerseits notwendig unter Entropieerzeugung vor sich gehen würden. Zunächst wird ganz universell diese Entropieerzeugung aus der Forderung errechnet, daß sie im Sinne des zweiten Hauptsatzes eine volle Kompensation darstellt [Gleichung (1)]. Es wird dann auch an Hand einer unbelebten Vorrichtung, die aber (unter dauernder Entropieerzeugung) in der Lage ist, Messungen vorzunehmen, die entstehende Entropiemenge berechnet und gefunden, daß sie gerade so groß ist, wie es für die volle Kompensation notwendig ist: die wirkliche Entropieerzeugung bei der Messung braucht also nicht größer zu sein, als es Gleichung (1) verlangt.

Es gibt einen schon historisch gewordenen Einwand gegen die allgemeine Gültigkeit des zweiten Hauptsatzes der Thermodynamik, welcher in der Tat einen recht bedrohlichen Eindruck macht. Es ist dies der Einwand des Maxwell’schen Dämons, der in verschiedener Umkleidung auch heute noch immer wieder auftaucht, und vielleicht nicht ganz mit Unrecht insofern, als hinter der präzise gestellten Frage sich quantitative Zusammenhänge zu verbergen scheinen, die bisher nicht aufgeklärt worden sind. Den Einwand in seiner ursprünglichen Formulierung, die mit einem Dämon operiert, welcher die raschen Moleküle abfängt und die langsamen passieren läßt, kann man allerdings mit der Entgegnung abtun, daß wir Menschen den Wert der thermisch schwankenden Parameter ja prinzipiell nicht jeweils erraten können; aber es läßt sich nicht leugnen, daß wir den Wert eines solchen schwankenden Parameters sehr wohl messen könnten und dann sicherlich Arbeit auf Kosten der Wärme gewinnen könnten, indem wir unsere Eingriffe dann je nach dem Resultat der Messung passend einrichten. Freilich bleibt es zunächst dahingestellt, ob wir nicht einen Fehler begehen, wenn wir den eingreifenden Menschen selbst nicht mit zum System rechnen und seine Lebensvorgänge nicht mitberücksichtigen.

vessel full of air at uniform temperature are moving with velocities by no means uniform, though the mean velocity of any great number of them, arbitrarily selected, is almost exactly uniform. Now let us suppose that such a vessel is divided into two portions, A and B, by a division in which there is a small hole, and that a being, who can see the individual molecules, opens and closes this hole, so as to allow only the swifter molecules to pass from A to B, and only the slower molecules to pass from B to A. He will thus, without expenditure of work, raise the temperature of B and lower that of A, in contradiction to the second law of thermodynamics.

Maxwell’s demon exploits the random, statistical nature of matter in order to decrease entropy in a closed system without any expenditure of energy—a state of affairs that is physically impossible. Recognizing the flaw in Maxwell’s concept, Szilard countered the earlier physicist’s challenge as follows:

Szilard realized that the act of measuring the position of the atom (or in the Maxwell case, the speed of an incoming atom) must, in some way, increase the entropy of the universe, counteracting the demon’s reduction of the universe’s entropy. When a demon performs a measurement, he is getting an answer to a question: Is the atom on the right side of the box or the

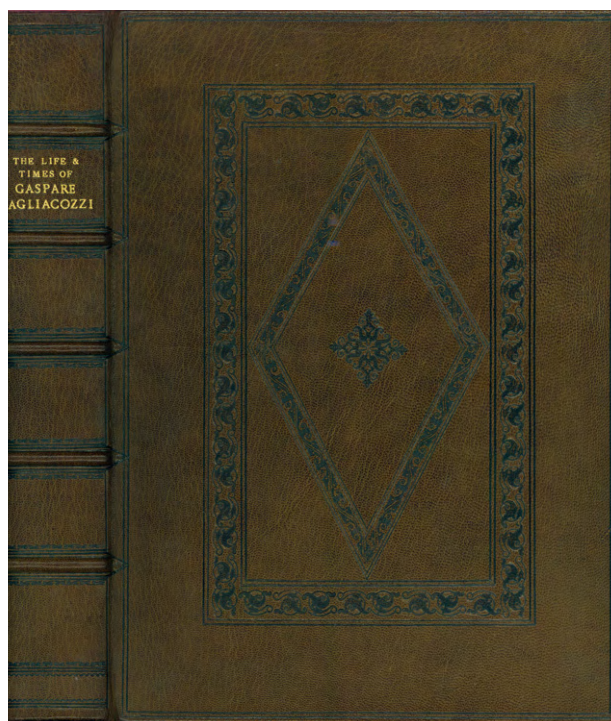
left side of the box? Is the atom hot or cold? Should I open a shutter or not? So a measurement is an extraction of information from the particle. That information does not come for free. Something about that information—either extracting it or processing it—would increase the entropy of the universe. In fact, Szilard calculated that the “cost” of that information was a certain amount of useful energy—more precisely, $kT \log 2$ joules for every bit of information, where T is the temperature of the room that the demon is in and k is the same constant that Boltzmann used in his entropy equation (Seife, pp. 78-79).

One of the most brilliant thinkers of the twentieth century, Szilard is best known for his work in nuclear physics: he conceived the idea of a nuclear chain reaction in 1933, filed a patent for a simple nuclear reactor in 1934, and collaborated with Fermi in the first demonstration of a chain reaction in 1942. In 1939 Szilard wrote a confidential letter to President Roosevelt outlining the possibility of nuclear weapons; this letter, co-signed by Einstein, led directly to the foundation of the Manhattan Project. Szilard worked on the Manhattan Project during the Second World War, but opposed the use of the atomic bomb as a weapon of destruction, instead advocating for a demonstration of the bomb’s power in the hope that the mere threat of such a weapon would force Germany and Japan to surrender. Horrified by the devastation of Hiroshima and Nagasaki, Szilard turned from nuclear physics to biology after the war, and became an outspoken opponent of nuclear proliferation. 40220

146. **Tagliacozzi, Gaspare (1545-99).] Gnudi, Martha Teach and Webster, Jerome.** The life and times of Gaspare Tagliacozzi, surgeon of Bologna. . . . With a documented study of the scientific and cultural life of Bologna in the sixteenth century. Preface by Arturo Castiglioni. 4to. xxii, 538, [4, incl. colophon]pp. 54 plates plus reproductions of the woodcuts from *De curtorum chirurgia*. New York: Reichner, [1950]. 338 x 244 mm. (large paper, uncut). Full paneled morocco by Bernard Middleton, t.e.g., title in gilt on spine; preserved in quarter morocco slipcase (a little spotted, small splits in hinge). One of five large-paper copies printed in Bologna on handmade Fabriano Perusia paper by the Tipografia Luigi Parma. Copy of physician and collector Kenneth Garth Huston (1926-87), with his bookplate and note on the colophon.

\$7500

First Edition, One of Five Large-Paper Copies. The definitive biography of the founder of plastic surgery, with a detailed bibliographical history of Tagliacozzi’s influence up to the 20th century. Includes reproductions of the magnificent woodcuts from *De curtorum chirurgia*, together with a partial English translation. The colophon states that only



three large-paper copies were printed; however, according to Kenneth Garth Huston’s note on the colophon leaf, “This is one of two extra large-paper copies (in addition to the three [mentioned in the colophon]) discovered by Martha Gnudi at the printers’. This copy bound by Bernard C. Middleton, Jan. 1978.” 38001

Volume V Now in Press

147. **Vesalius, Andreas.** On the fabric of the human body. A translation of *De humani corporis fabrica libri septem*. Translated by William Frank Richardson, M.A., Ph.D. and John Burd Carman, B.Med.Sc., M.B.Ch.B, D.Phil.

Vol. I: *Book I: The Bones and Cartilages.*

Vol. II: *Book II: The Ligaments and Muscles.*

Vol. III: *Book III: The Veins and Arteries; Book IV: The Nerves*

Vol. IV: *Book V: The Organs of Nutrition and Generation*

Vol. V: *Book VI: The Heart and Associated Organs; Book VII: The Brain* (available March 2009)

Vesalius’s *De Humani Corporis Fabrica* is one of the world’s most famous books, and probably the greatest book in the history of anatomy. This award-winning translation will be complete in five volumes, of which the first four are currently available. Vol. V, now in press, includes a translation of Vesalius’s original index, plus cumulative indexes to all five volumes.

Vol. I: lxiv, 416pp. 73 illus. 9 x 12 inches. Cloth, dust-jacket, 80-pound Mohawk Superfine Softwhite Eggshell acid-free paper. ISBN 978-0-930405-73-1. Norman Anatomy Series, No. 1; Norman Orthopedic Series, No. 4; Norman Landmarks Series, No. 1. NP32874. \$275.

Vol. II: 492pp. 39 illus. 9" x 12". Cloth, dust jacket, 80-pound Mohawk Superfine Softwhite Eggshell acid-free paper. ISBN 978-0-930405-75-5. 1999. Norman Anatomy Series, No. 2. Norman Landmarks Series, No. 2. NP35688. \$275.

Vol. III: xxxiv, 286pp. Approx. 75 illus., including 2 large folding plates. 9 x 12 inches. Cloth, dust-jacket, 80-pound Mohawk Superfine Softwhite Eggshell acid-free paper. ISBN 978-0-930405-83-0. January 2003. Norman Anatomy Series, No. 3. Norman Landmarks Series, No. 3. NP37975. \$275.

Vol. IV: xxii, 241pp. 31 illus. 9 x 12 inches. Cloth, dust-jacket, 80-pound Mohawk Superfine Softwhite Eggshell acid-free paper. ISBN 978-0-930405-88-5. January 2003. Norman Anatomy Series, No. 4. Norman Landmarks Series, No. 5. NP40059. \$275

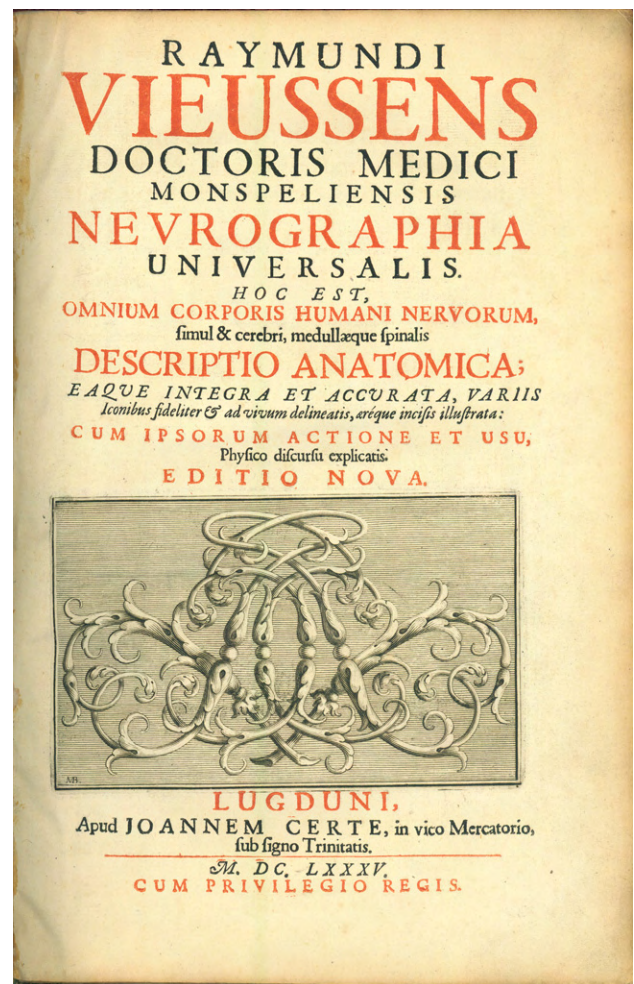
Vol. V: xx, 414pp. Approx. 40 illus. 9 x 12 inches. Cloth, dust-jacket, 80-pound Mohawk Superfine Softwhite Eggshell acid-free paper. ISBN 978-0-930405-90-8. Norman Anatomy Series, No. 5; Norman Landmarks Series, No. 6. NP40498. \$275

Best Illustrated 17th Century Neurological Treatise

148. **Viessens, Raymond (1641-1715).** Neurographia universalis. Hoc est, omnium corporis humani nervorum, simul & cerebri, medullaeque spinalis descriptio anatomica . . . Editio nova. Folio. [16], 252pp., errata leaf. *Lacks engraved portrait of the author, as often.* Engraved arms of dedicatee cardinal's coat of arms, 22 engraved plates (14 large folding and 2 extra-large folding), 8 text engravings, by Beaudou after drawings by the author. Lyons: Jean Certe, 1685. 345 x 225 mm. Speckled vellum c. 1685, a little warped. Lightly browned, a few tears in folding plates neatly repaired, edges of 1 or 2 plates a little frayed, occasional staining. Very good copy. \$12,500

First Edition, second issue, dated "1685" on the title, but otherwise identical to the first issue of 1684. All copies, of whatever issue, read "editio nova" on the title-page, even though they are of the first edition. See G-M 1379.

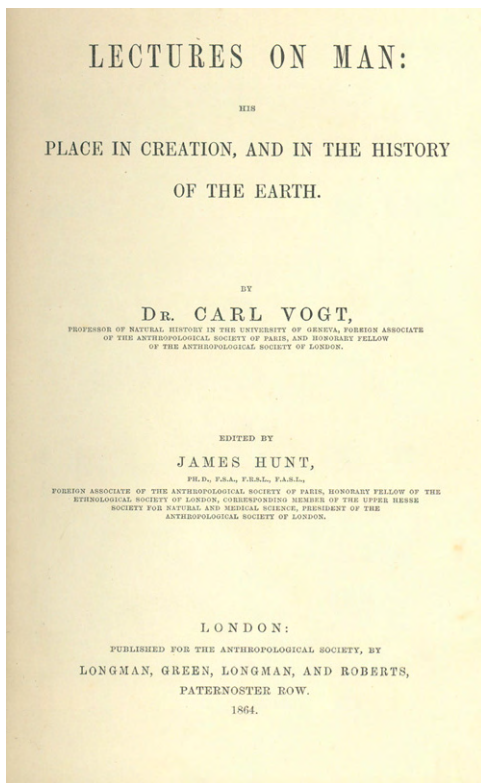
Viessens's treatise, the result of ten years' study and the dissection of 500 cadavers, is the best illustrated neurological monograph of the 17th century. The magnificent copper-plates, the largest of which extend to 1090 x 580 mm., are



among the most aesthetically appealing of all depictions of the greater nervous system.

"Viessens is credited with the first description of the pyramids, the inferior olive, the centrum ovale and the semilunar ganglion. He also went into great detail describing the peripheral nerves. Following the general method of Varolius, he made some of the first successful attempts to tease out the internal structures of the brain, demonstrating the continuity of the corona radiata, the internal capsule, the cerebral peduncle, and the pyramidal fasciculi of the pons and medulla oblongata. Viessens called the basal ganglia 'anterior and posterior cerebral ganglia,' and erroneously concluded that the anterior medullary velum (major cerebral valve or valve of Viessens) effectively closed the upper end of the fourth ventricle" (McHenry, *Garrison's Hist. Neur.*, pp. 60-64, illustrating title). Osler 4171. Cushing V-135. Waller 9961 (with title & portrait in facsimile). 38963

149. **Vogt, Karl (1817-95).** Lectures on man: His place in creation, and in the history of the earth. Edited by James Hunt. xxii, 475pp., plus 10pp. publisher's adverts. Text illustrations. London: Published for the



Anthropological Society by Longman, Green, Longman, and Roberts, 1864. 217 x 140 mm. Original brown cloth stamped in gilt and blind, slight wear. \$275

First Edition in English. Chapters 9, 10, and 11 (pp. 232-307) of this work represent a review of the evidence for human prehistory presented with Vogt's racist anthropological slant that viewed fossil men as inferior to modern humans. This approach was consistent with that of the Anthropological Society of London, which brought a scientific approach to racism during the period around the American Civil War, supporting the comparison of black people with primates. Vogt supported Darwin's theory of evolution, a fact that Darwin acknowledged in the introduction to his own *Descent of Man* (1871). Among the topics that Vogt addresses in his chapters concerning the issue of human prehistory is a good review of the human fossils found by Schermerling in the cave of Engis in the early 1830s. Spencer 1986, no. 3.099. 40436

Art Nouveau Commemoration of Volta's Discovery, By One of Italy's Greatest Poster Artists

150. [**Volta, Alessandro (1745-1827)**] Commemoration of Volta in the centenary of the electric pile. Como, May-October 1899. . . . Chromolithographed poster by **Adolfo Hohenstein** (1854-1928), signed and



dated in the stone by the artist. Milan: G. Ricordi, [1899]. 170 x 51.1 centimeters, mounted on linen. A few tears expertly repaired, otherwise a fine example of this large and striking Art Nouveau poster. Small stamp of the city of Como in lower right corner. Archivaly framed under UF3 plexiglass. \$9500

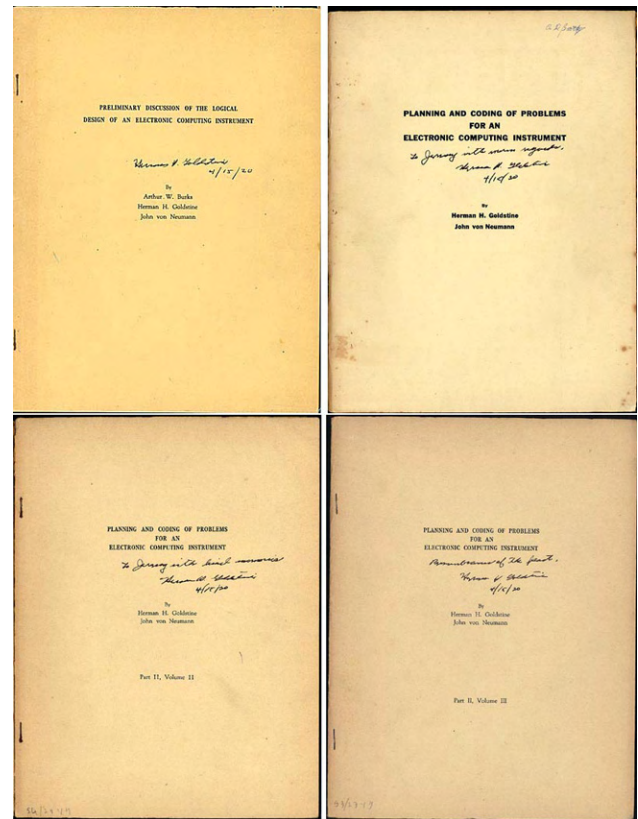
First Edition, Extremely Rare English-Language Version of this striking Art Nouveau poster, designed for the 1899 *Exposizione Internazionale di Elettricità* in Como, an exhibition of electrical products commemorating the hundredth anniversary of the electric battery. The poster is an excellent example of the art of Adolfo Hohenstein, the brilliant German-born master of the Art Nouveau style whose extensive work for the Italian publisher Ricordi represents the foundation of a distinct Italian poster tradition rivaling that of France. The poster, printed in shades of tan, blue, green and rust highlighted with gold ink or gold leaf, shows “two young women with the symbols of manual labor (a shuttlecock and a washboard) plac[ing] a wreath around the cameo of Alessandro Volta (1754-1827), to indicate their gratefulness for his electricity that liberates them from drudgery” (Rennert PAI-XXXVI, 353). The poster exists in three formats: 170 cm. high format, as in our example (also

issued in French- and Italian-language versions), a c. 220 cm. high format, and in small format as part of the Ricordi commemorative portfolio published in 1914. This is probably the only Art Nouveau poster commemorating an event in the history of electrical or physical science. *Very rare*—posters of this kind were ephemeral pieces intended to be mounted in public places, and very few copies survive outside museums. 40297

First Formal Conceptual Paper on the Stored-Program Computer

151. [**Von Neumann, John.**] (1) **Burks, Arthur W.; Goldstine, Herman; and von Neumann.** Preliminary discussion of the logical design of an electronic computing instrument. Reproduced typescript. [6], 42ff. [Princeton, N.J.: Institute for Advanced Study,] 1947. 280 x 216 mm. Inscribed by Goldstine on the front wrapper: "Herman H. Goldstine 4/15/20[00]." (2) **Goldstine and von Neumann.** Planning and coding of problems for an electronic computing instrument. Reproduced typescript. 3 volumes. Vol. I: [2], ii, 69 [1]pp. Inscribed by Goldstine on the front wrapper: "To Jeremy with warm regards, Herman H. Goldstine 4/15/20[00]." Vol. II: [8], 68pp. Inscribed by Goldstine on the front wrapper: "To Jeremy with kind memories, Herman H. Goldstine 4/15/20[00]." Vol. III: [6], 23 [1]pp. Inscribed by Goldstine on the front wrapper: "Remembrance of the past, Herman H. Goldstine 4/15/20[00]." Text diagrams. 280 x 216 mm. [Princeton, N.J.: Institute for Advanced Study,] 1947-48. Together 4 vols., in original buff printed wrappers, spines a bit worn, a few spots. Boxed. Provenance: Andrew D. Booth, with his signature on the front wrapper of Part II, vol. I. \$45,000

Second edition of (1); **First Edition** of (2). A few months after ENIAC had its first public demonstration (in February 1946), the three chief members of the IAS Electronic Computer Project issued their *Preliminary Discussion of the Logical Design of an Electronic Computing Instrument*, a report to the Army Ordnance Department that represents the first published formal conceptual paper on the stored-program computer (if we call von Neumann's informal *First Draft* a privately circulated working paper). The first edition of the *Preliminary Report* appeared in June 1946; a revised second edition, containing an expanded account of the arithmetic processes and a report of further experimental work, was issued in September 1947. This was followed by the three-part *Planning and Coding of Problems for an Electronic Computing Instrument*, written by von Neumann and Goldstine with contributions by Burks, who by this time had left the IAS project to take a professorship at the University of Mich-



igan. The three parts of *Planning and Coding* were issued in 1947-48; a fourth part was promised but never published. According to Burks, the *Preliminary Discussion* and *Planning and Coding* "were conceived as a single work dealing with the two inextricably intertwined sides of the design of a stored-program computer: the 'hard' side of logical design and architecture and the 'soft' side of program languages and their use" (von Neumann 1987, 146).

The *Preliminary Report* contains the first technical description of what is known as the von Neumann architecture, in which programs and data are stored in a comparatively slow-to-access storage medium, such as a hard disk; and work is performed on them in a fast, volatile random-access memory. A single bit-parallel switch is used to process instructions one at a time (this last, a concession to the limitations of late 1940s technology, became known later as the "von Neumann bottleneck"). This was a great improvement over EDVAC's serial design according to Burks, "because the memory was random access, the programmer did not have to be concerned with the timing problems associated with storage lines holding numbers in series. And although a parallel processor uses more equipment than a serial processor, this was to a large extent counterbalanced by the elimination of the EDVAC equipment required for timing and controlling the sequence of bits in a word" (von Neumann 1987, 14). The von Neumann architecture, with some additions and refinements, remained the logical basis for the design of most computers built since the *Preliminary Report's* publication.

The three parts of *Planning and Coding* represent the first major account of computer-programming methodology for a stored-program computer, even though none was operational when the report was written. It was the only such work available until the private distribution in 1950 and publication in 1951 of Wilkes, Wheeler, and Gill's *Preparation of Programs for an Electronic Digital Computer*. Because the new electronic computers were so much faster than previously available calculating technology—up to 10^5 times as fast as a manual desk calculator—von Neumann recognized that new programming procedures would have to be devised to enable users to take full advantage of the machines' speed. Thus in *Planning and Coding* particular emphasis is laid upon

disabus[ing] readers of the notion that programming is a straightforward, linear, almost mechanical translation of a mathematical problem into instructions that can be executed by the computer, as programming had been for earlier devices. . . .

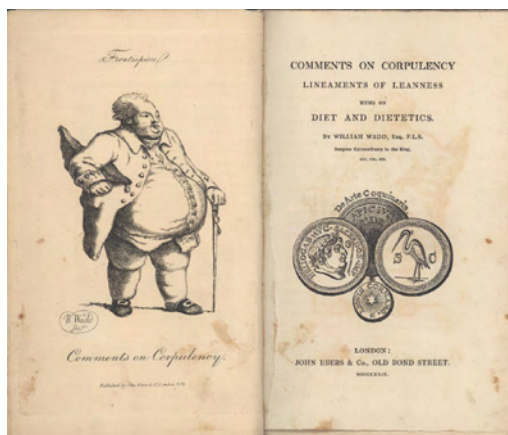
The authors point out that in the execution of orders, the computer does not simply pass through them a single time in a linear fashion. To gain its full flexibility, the computer must be able to execute transfer orders (which allow it to jump backward or forward to some specified place in the instruction sequence) and substitution sequences (which allow the coded sequence of instructions to be modified in the course of a computation), and these changes may be conditioned on the results obtained earlier in the computation. They described programming as involving two aspects: writing the static code that is entered into the machine and understanding the dynamic process by which the machine executes these orders. . . .

To aid in this dynamic analysis Goldstine and von Neumann invented a logical tool known as a flow diagram: a labeled graph for tracking the dynamic flow as the computer executes orders and changes values of variables (Aspray 1990, 69–70).

The final part of the report describes a programming methodology built around the use of variable addressing and a library of subroutines—a methodology designed to eliminate the need for programming the computer “from scratch” each time it was given a new problem. This variable-address computing machine language was an invention of von Neumann. “The importance of being able to do this [write subroutines rather than recode the machine each time] is very great. It is likely to have a decisive influence on the ease and the efficiency with which a computing automaton of the type that we contemplate will be operable. This possibility should, more than anything else, remove a bottleneck at the preparing, setting up, and coding of problems, which might otherwise be quite dangerous” (part II, vol. III, AB 287).

This set of the *Preliminary Report* and *Planning and Coding* is from the library of computer pioneer Andrew D. Booth, who was director of the Birkbeck College Computation Laboratory in the 1940s and 1950s. While at Birkbeck College Booth developed several all-purpose digital computers, including the Automatic Relay Calculator (ARC), the Simple Electronic Computer (SEC), the APE(X)C, and the MAC, and also developed large-scale magnetic-drum memory systems for long-term data storage.

When *Origins of Cyberspace* was written, OCLC cited one copy of the first edition (1946) and three copies of the second edition (1947) of (1). RLIN cited two copies of (1). OCLC cited five copies of (2) and RLIN cited one copy of (2). *Origins of Cyberspace* 959. 39085

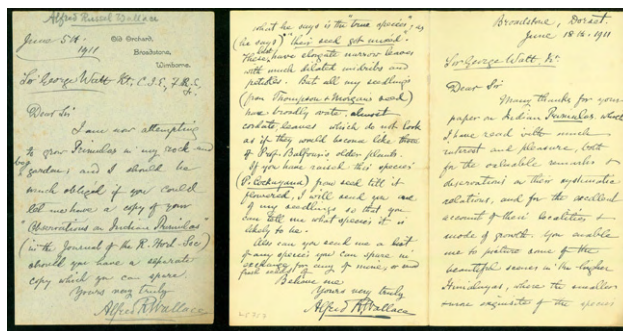


152. **Wadd, William.** Comments on corpulency, lineaments of leanness . . . [8], 170, [2]pp. 7 plates (incl. frontispiece). London: John Ebers, 1829. 199 x 123 mm. Original cloth, remnants of paper spine label, a little worn, one signature starting. \$500

First Edition of this very early classic on diet and overweight, representing an expanded version of Wadd's *Cursory Remarks on Corpulence* (1810 and later eds.). Includes a section on the dangers of excessive leanness, and a section containing dietary advice. The illustrations for this work were drawn and engraved by Wadd, and “remind one of Cruikshank” (*Dictionary of National Biography*). 40306

“I Shall be Much Pleased to Exchange Primulas with You”

153. **Wallace, Alfred Russel (1823-1913).** (1) Autograph letter signed to Sir George Watt (1851-1930). Old Orchard, Broadstone, Wimbourne, June 5, 1911. 1 page. 177 x 114 mm. (2) Autograph letter signed to Watt. Broadstone, Dorset, June 18, 1911. 4pp. 179 x 113 mm. First letter a little discolored at margins, but fine otherwise. \$1250



Two letters by Wallace, co-origiator with Darwin of the theory of evolution by natural selection, to Sir George Watt, an expert on primroses (*primula*) who identified several new varieties and wrote several books and articles on the subject. In the first letter Wallace asks Watt for a copy of Watt's "Observations on Indian Primulas" (*Journal of the Royal Horticultural Society*, 1904?), since "I am now attempting to grow Primulas in my rock and bog garden." In the second letter Wallace thanks Watt for sending him the paper on primulas, "which I have read with much interest and pleasure, both for the valuable remarks & observations on their systematic relations, and for the excellent account of their localities & mode of growth." He discusses his intention of growing several varieties of primrose in his "Alpine & bog garden," and proposes an exchange of specimens:

I shall be much pleased to exchange Primulas with you, and have young plants to spare of *P. cashimiriensis*, *denticulata v. alba*, *Cockburnianae*, *floribunda v. Isabellina*, *Forbesii v. rubra*, (pure colour), *pulveridentia*, and *malachorides*.

Wallace notes that he had received some specimens from Isaac B. Balfour (1853-1922), professor of botany at the University of Edinburgh and a specialist in Sino-Himalayan plants. Balfour is best known for his major reform of Edinburgh's botanical gardens. 40452

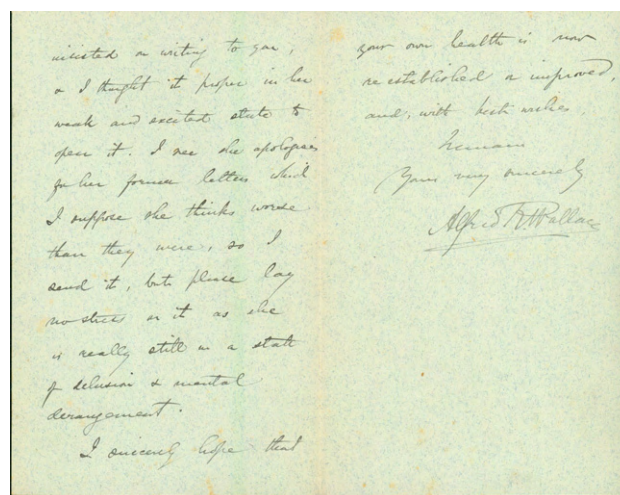
To Marianne North, on his Wife's Mental Illness

154. **Wallace, Alfred Russel (1823-1913)**. Auto-graph letter signed to Miss [Marianne] North (1830-90). Frith Hill, Godalming, Dec. 14, 1888. 2-1/2pp. Light soiling along folds, but very good.

\$1250

To the naturalist and botanical artist Marianne North, regarding a bout of mental illness suffered by his wife:

My wife has been suffering from an extraordinary brain-disease the last month or more, & at the commencement of it she wrote you some letters, very wild I fear, but she was not responsible for her thoughts



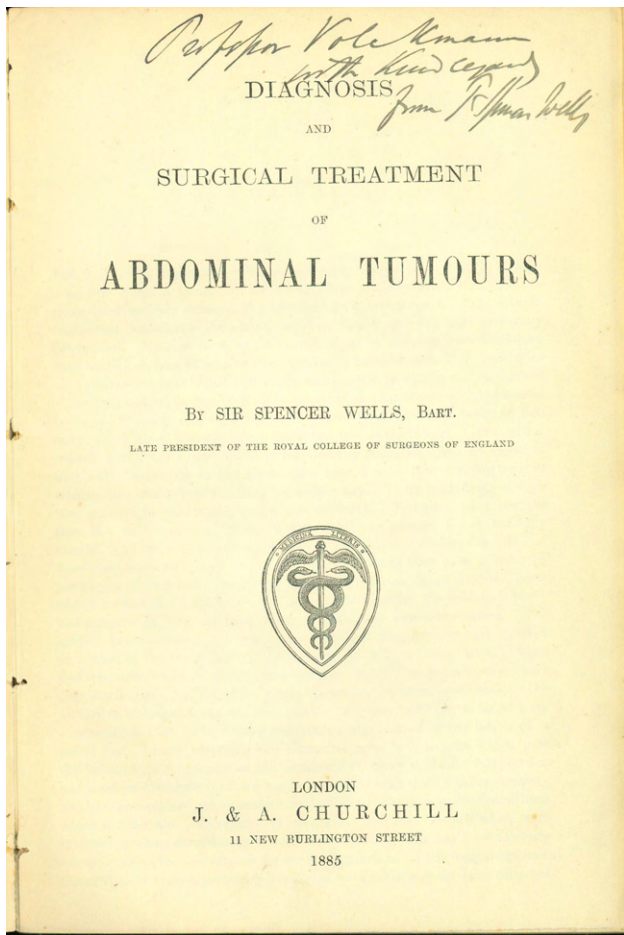
or actions. Her illness has now come to a crisis, but I hope it has turned & that she will soon get better.

Marianne North is best known for her paintings of the flora of the world made during her extensive travels around the globe. Her paintings, remarkable for their scientific accuracy, are now housed in the Marianne North Gallery of Botanic Art in Kew Gardens. The Wallaces were old acquaintances of Miss North, and had spent part of the previous summer at her cottage in Gloucestershire. Raby, *Alfred Russel Wallace*, p. 252. 40461

Presentation Copy

155. **Wells, Sir Thomas Spencer (1818-97)**. Diagnosis and surgical treatment of abdominal tumours. 8vo. vi, [2], 216pp. Text illustrations. London: J. & A. Churchill. 1885. 225 x 150 mm. Original printed boards, cloth backstrip, slight wear. Light toning, but very good. *Presentation copy, inscribed by Wells on the title*: "Professor Volkmann with kind regards from T. Spencer Wells." The recipient was most likely surgeon Richard von Volkmann (1830-89); see G-M 2126, 3470, 5617. \$1250

First Edition. Wells, the pioneering gynecological surgeon, was responsible for establishing ovariectomy as an accepted surgical procedure; he has also been called the originator of modern abdominal surgery (by D'Arcy Power), because the technique governing the operation of ovariectomy, combined with Listerian principles, has been applied to operative procedures on all the other abdominal viscera. His *Diagnosis and Surgical Treatment of Abdominal Tumours*, a work written for medical students, "summarized the history of ovariectomy and reviewed his own vast experience of the operation. He discussed the antiseptic method fully and considered the influence of this on abdominal surgery. In addition he gave in this small volume brief accounts of his experiences on the surgery of organs other than the ovary

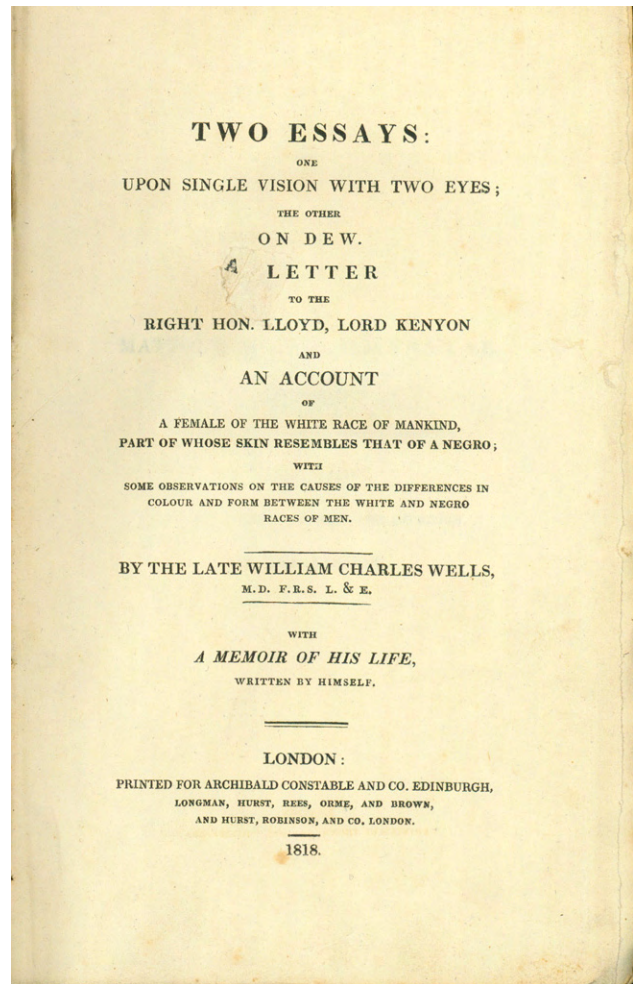


and uterus. Certain cases are recorded here which do not appear elsewhere” (Shepherd, *Spencer Wells*, p. 110). 33710

First Recognizable Statement of the Principle of Natural Selection

156. **Wells, William Charles (1757-1817)**. Two essays: One upon single vision with two eyes; the other on dew. A letter to the Right Hon. Lloyd, Lord Kenyon and an account of a female of the white race of mankind, part of whose skin resembles that of a negro, . . . 8vo. London: Archibald Constable & Co. [etc.], 1818. [2] lxxiv [2], 439 [1] pp. 225 x 138 mm. Original boards, printed paper spine label, upper extremity of spine chipped, hinges cracking. Fine apart from minor foxing. Boxed. \$1250

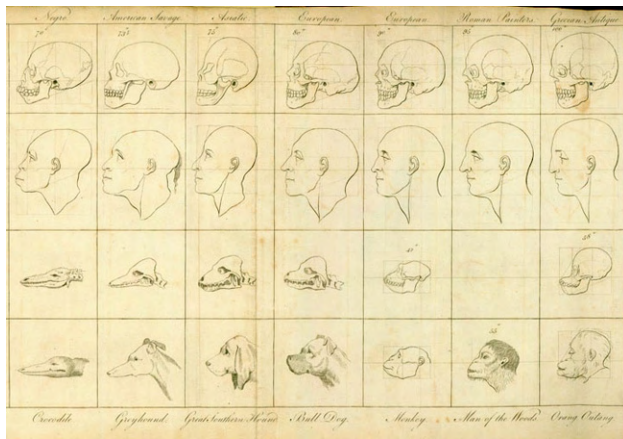
First Edition of Wells’s “Account of a female of the white race. . .,” which contains the first recognizable statement of the principle of natural selection. G-M 216.2. In his study of an albino negro woman, Wells assumed a biological evolution of the human species, drawing an analogy between man’s selective breeding of domestic animal varieties and nature’s selection of varieties of men best suited to various



climates. Darwin was not familiar with Wells’s paper when he published the first edition of the *Origin*, but it was later called to his attention, and Darwin paid tribute to Wells’s pioneering statement in the historical introduction to the third edition of the *Origin*. Wells’s paper is contained in the **First Collected Edition** of his essays on binocular vision and on dew formation, both of which represented advances in the knowledge of these subjects. DSB. Norman 2200. 37710

157. **White, Charles (1728-1813)**. An account of the regular gradation in man, and in different animals and vegetables; and from the former to the latter. 4to. xii, 146, [cxxxix] cxl-clxvi pp. Pages ix-xii bound after p. 146; pages [cxxxix]-clxvi bound after p. 138. 4 engraved plates numbered 1-4; plates 1-3 folding. London: C. Dilly, 1799. 293 x 228 mm.). 20th cent. half calf, marbled boards. Light browning, but very good. \$1500

First Edition. White was a prominent surgeon and obstetrician. Stimulated by John Hunter, White studied gradation in animals and plants and argued against the idea that



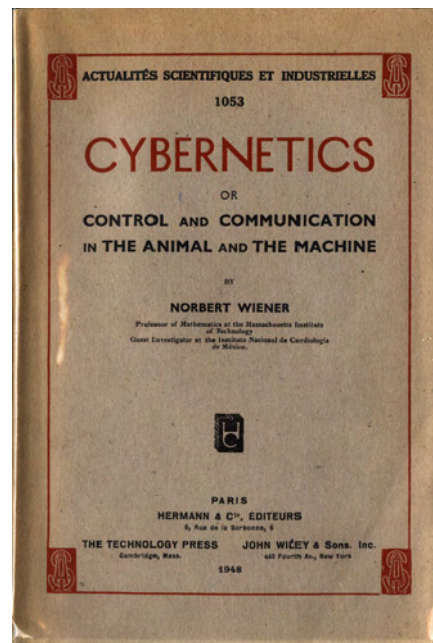
acquired characteristics could be inherited. He used anatomical evidence in an attempt to prove that Europeans, Asians, Americans and Africans constituted four separate species in the “great chain of being,” with blacks occupying a place closer to apes than to whites. Although White himself opposed slavery, his “scientific” arguments were used by pro-slavery forces to justify their position. White’s work was unknown to Darwin. *Dictionary of Scientific Biography*. Norman 2234. 40425

First Published Book to Discuss Electronic Digital Computing

158. **Wiener, Norbert (1894-1964)**. *Cybernetics or control and communication in the animal and the machine*. 8vo. 194 [2]pp. Paris: Hermann et Cie., 1948. 252 x 166 mm. Original wrappers, slightly worn & chipped. Lightly browned but very good. Preserved in a cloth folding box. \$1500

Rare First Edition, published in France; the New York edition published by John Wiley was offset from the sheets of the Hermann edition. *Cybernetics* was the first conventionally published book, rather than a technical report, to include a serious discussion of electronic digital computing. Wiener, independently of Claude Shannon, conceived of communications engineering as a brand of statistical physics, and applied this viewpoint to the concept of information. However, while Shannon concentrated mainly on applications of information theory to communications, Wiener stressed its application to control problems involving other physical and complicated biological phenomena—indeed, what made *Cybernetics* so significant was Wiener’s

synthesis under his name of a vast variety of new developments that occurred in the 1930s and 1940s in modern technology and science. These were the times when there were rapid advances in computers, new findings in neurophysiology, tremendous progress in the development of communication systems, servomechanisms and other automation, new

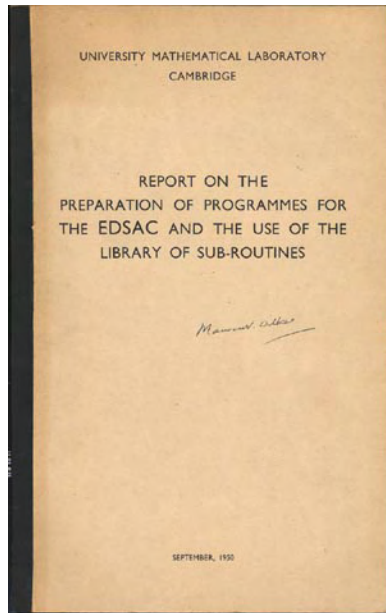


predictive methods connected with antiaircraft artillery. Wiener conceived all this rightly as a progress of a single science of “control.” In fact the new breed of technological inventions of what came to be called information machines—which include computers and all means of communication—may be compared with the nervous system of an organism that serves the purpose of controlling its environment. . . . Information theory clearly plays an important role in Wiener’s cybernetics, but what Wiener considered information theory is a more general scientific discipline than what is usually regarded in the United States, where information theory is more or less synonymous with coding theory. Wiener with his profound background in theoretical physics, particularly in Gibbsian statistical mechanics, knew that the entropy function has been around since the time of Boltzmann and that Szilard showed that information can be used to decrease physical entropy (Watanabe 1985, 215–216).

Wiener’s chapter on “Time series, information, and communication” contained the first publication of Wiener’s formula describing the probability density of continuous information. This is remarkably close to Shannon’s formula dealing with discrete time published in “A mathematical theory of communication” (1948). *Cybernetics* also contained a chapter on “Computing machines and the nervous system.” This was a theoretical discussion, influenced by McCulloch and Pitts, of differences and similarities between information processing in the electronic computer and the human brain. It contains a discussion of the difference between human memory and the different computer memories then available. Tacked on at the end of *Cybernetics* were speculations

by Wiener about building a chess-playing computer, predating Shannon's first paper on the topic.

Cybernetics is a peculiar, rambling blend of popular and highly technical writing, ranging from history to philosophy, to mathematics, to information and communication theory, to computer science, and to biology. Reflecting the amazingly wide range of the author's interests, it represented an interdisciplinary approach to information systems both in biology and machines. It influenced a generation of scientists working in a wide range of disciplines. In it were the roots of various elements of computer science, which by the mid-1950s had broken off from cybernetics to form their own specialties. Among these separate disciplines were information theory, computer learning, and artificial intelligence. Minsky 1963, 519. *Origins of Cyberspace* 991. DSB. Heims, *John von Neumann and Norbert Wiener*, pp. 300-301. 39500

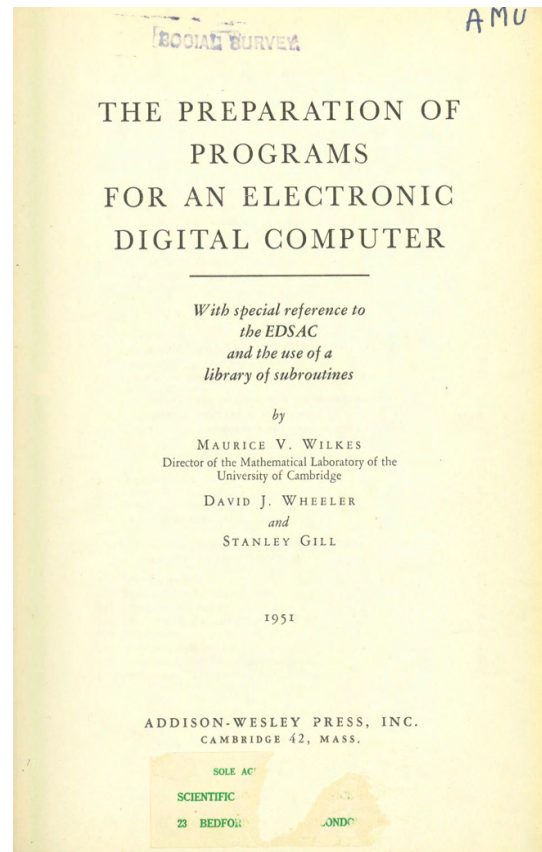


First Report on Programming an Operational Stored-Program Computer

159. **Wilkes, Maurice (1913-) et al.** Report on the preparation of programmes for the EDSAC and the use of the library of subroutines. Dittoed document in two colors. [3], 40 [2], 26, 39, xi ff. 323 x 201 mm. N.p., 1950. Original tan printed wrappers, cloth spine. Signed by Wilkes on the front wrapper. Boxed. Laid in are a single dittoed errata sheet and a two-sheet dittoed and stapled document titled "University Mathematical Laboratory, Cambridge. Applications of the EDSAC, to 1st September 1950," describing supplementary

material. Provenance: Andrew D. Booth. Occasional insignificant spotting. \$25,000

First Edition. The first report on how to program an operational stored-program computer. It was prepared by Wilkes and a fifteen-man team of researchers at Cambridge's University Mathematical Laboratory, and distributed to no more than one hundred people—"everyone we thought would be interested, both in the United Kingdom and abroad" (Wilkes 1985, 149). The material in this dittoed report was published with very few changes in Wilkes, Wheeler, and Gill's *Preparation of Programs for an Electronic Digital Computer* (1951), **which we have included as the following item in this catalogue.** *Origins of Cyberspace* 1027. 39248



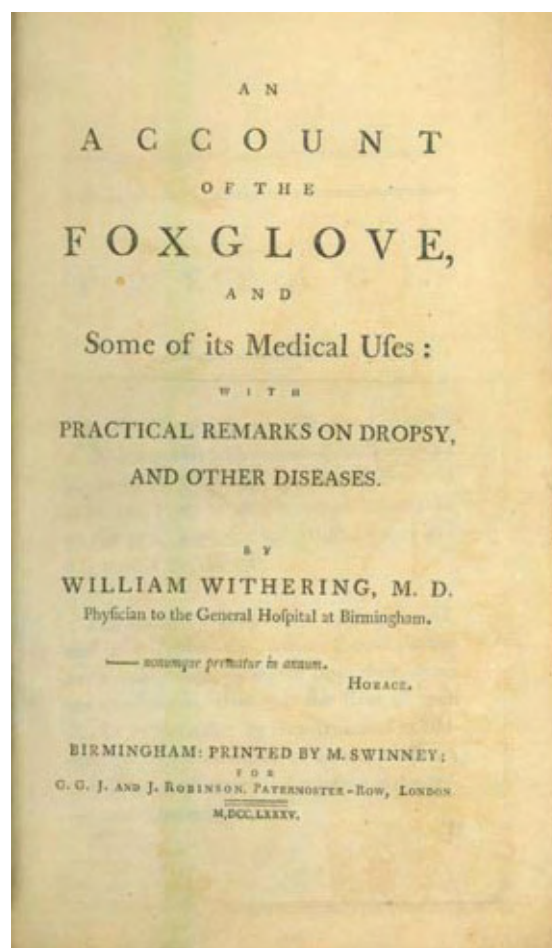
160. **Wilkes, Maurice W. (1913-); Wheeler, David J. (1927-); & Gill, Stanley.** The preparation of programs for an electronic digital computer. 8vo. [14, incl. frontispieces], 167, [3]pp. Cambridge, MA: Addison-Wesley, [1951]. 228 x 152 mm. Original cloth. Library stamps on endpapers, half-title, title and a few other leaves; traces of library label on inside front cover; label of L. J. Comrie's Scientific Computing Service (the British distributors of this title) partially removed from title; a few corrections in ink throughout. \$450

First Edition of the first textbook on computer programming and software: **the published version of the previous item in this catalogue.** Wilkes designed and built Cambridge University's EDSAC—the first stored-program computer—and, with the assistance of Wheeler and Gill, invented for it a programming system based on subroutines. “EDSAC holds a prime place in the history of the world's first computers, not only because it was the first full-scale operational electronic digital computer, but because its ability to construct programs from relocatable subroutines, and to link them together at load time, provided a model for almost all others to follow. The model was well explained by one of the most influential textbooks of this early era, *The Preparation of Programs for an Electronic Digital Computer*. . . . The form of constructing programs and how they should be linked together to form a load module, as described in this book, reappears many times for different computers being constructed in different countries. It provided the basic ideas as to how one should go about creating a computing system” (Williams, *Hist. Computing Technology*, p. 337; see also pp. 331-38). Lee, *Computer Pioneers*, pp. 730-35. *Origins of Cyberspace* 1030. 39506

Digitalis

161. **Withering, William (1741-99).** (1) An account of the foxglove, and some of its medical uses. . . [2], xx, [2], 207, [1]pp. Large folding engraved fronts. by James Sowerby, version with the artist's name and with lower leaves pointing to the left. Birmingham: printed by M. Swinney for G. G. J. & J. Robinson, London, 1785. Frontispiece skillfully repaired. (2) Withering. An account of the scarlet fever and sore throat, or scarlatina anginosa, . . . 8vo. [2], 127, [1]pp. Birmingham: M. Swinney for G. G. Robinson, 1793. Possibly lacking half-title. Together 2 works, 210 x 128 mm., bound together in quarter calf c. 1793, marbled boards, rebacked. Engraved bookplate. Preserved in a cloth slipcase. The Honeyman copy. \$18,500

(1) **First Edition** of Withering's classic report on the discovery of the efficacy of digitalis in heart diseases, and one of the first modern clinical studies of a drug. Withering's work contains the results of ten years of observations and clinical trials: of the 158 patients he treated with the foxglove, 101, who suffered from congestive heart failure, experienced relief after treatment with the drug, which is today known as digitalis after the foxglove's Latin name, *Digitalis purpurea*. Modern analysis of Withering's case reports suggests that many of the 57 other cases, such as those with pulmonary tuberculosis, did not involve diseases amenable to treatment with digitalis. Withering himself was aware that



these factors might be affecting his results and warned against generalizing on the basis of his cases.

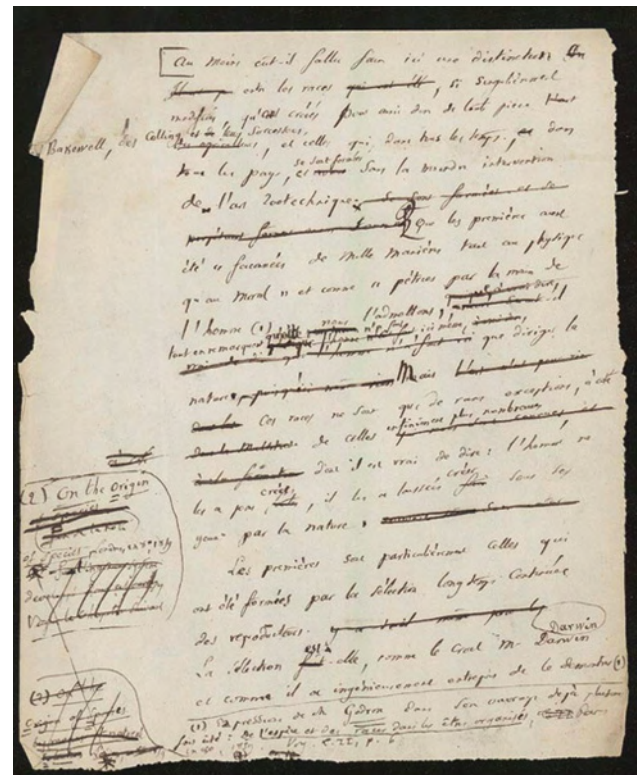
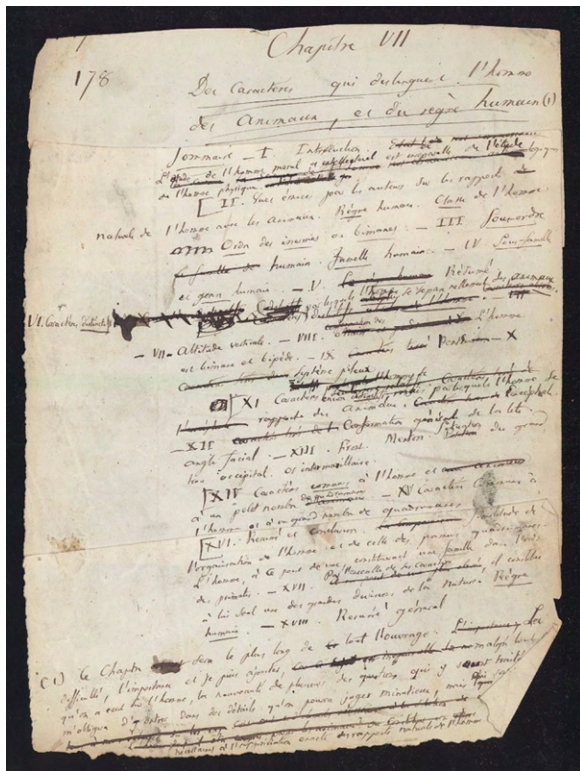
Over the ten years of his researches on digitalis, Withering derived what he believed to be the optimum quantity of a single dosage—an amount only slightly less active than the tablet used in contemporary practice. The incidence of side effects of the drug declined as Withering gained clinical experience; Estes and White observed that “it appears that the overall incidence of side effects attributable to digitalis in Withering's patients approximates the incidence recorded by physicians today. One could learn to use digitalis effectively and safely if one had no other text than Withering's *Account of the Foxglove*.”

Withering honestly recorded both successes and failures in his trials . . . He stressed that care must be taken in adjusting the dose, and he accurately described the signs and symptoms of digitalis toxicity and established clear guidelines for its rational use. Despite Withering's modest but definite claims for the efficacy of the foxglove, the drug became for nineteenth century clinicians a kind of panacea . . . Only in the past few decades has the real merit of Withering's work on the foxglove been recognized (*Dictionary of Scientific Biography*).



Le Fanu, *Notable Medical Books in the Lilly Library* 139 points out that the frontispiece is colored in some copies but not all. There are two versions of the plate: one, with artist's name and with lower leaves pointing to the left, was copied from the original which Sowerby had engraved for Curtis's *Flora Londinensis*; the other is the original version borrowed from Curtis, without artist's name and with lower leaves pointing to the right; our copy represents the former. Garrison-Morton 1836 and 2734.31. Estes & White, "William Withering and the purple foxglove," *Scientific American* 212 (1965), pp. 110-119. Henrey 1505. Hunt II, 676. Norman 2255. 40287

(2) Second edition, first published in 1779. A return to the subject of Withering's medical thesis of 1766, his first published work. See G-M 5079. 40287



Original Manuscripts on the Theory of Species and Varieties, and the Comparison of Man with Lower Animals, Contemporaneous with Darwin

162. **Geoffroy Saint-Hilaire, Isidore (1805-61).** (1) Histoire naturelle générale des règnes organiques, principalement étudiée chez l'homme et les animaux. **Auto-graph manuscript draft**, extensively revised and corrected, consisting of 10 chapters of the work, as listed below. Approx. 425ff., some of the chapters in loose wrappers inscribed with titles and subtitles. N.p., ca. 1858-1861. Some browning and dust-soiling, edges a bit frayed, but very good. (2) Histoire naturelle générale des règnes organiques, principalement étudiée chez l'homme et les animaux. 3 vols., 8vo. [4], xxiii, 455; [4], 523; [4], 539pp. Paris: Librairie de Victor Masson, 1854-62. 236 x 152 mm. Quarter calf, marbled boards ca. 1862, lightly rubbed, 2 or 3 corners bumped. Insignificant foxing, bookplate removed from one volume. Ownership stamp of F. G. Brooks in all three volumes. \$37,500

The decades prior to the publication of Darwin's *On the Origin of Species* (1859) saw the rise of an ongoing and

Chapter XX, page 551 of the manuscript, with Geoffroy Saint-Hilaire's reference to Darwin's *On the Origin of Species* in the left margin.

multifaceted debate among European scientists on the question of species, in particular the evolution of life forms. Arguments ranged from the transformist theories of Lamarck and Etienne Geoffroy Saint-Hilaire, who claimed that new habits and environments could bring about heritable structural changes in organisms, to the essentialist ideas of Cuvier and his followers, who believed that species did not change over time. A major participant in this debate was Isidore Geoffroy Saint-Hilaire, son of Etienne and author of important works on teratology (a term he coined) and zoology. Drawing on his researches, Isidore formulated a theory of limited variability of type that

viewed the organism as anchored by a specific type, an idealized rather than real form, which constituted a fixed point around which the oscillations of nature played. . . . [The theory] was bolstered by much empirical evidence including animal hybridization experiments undertaken at the menagerie of the Muséum National d'Histoire Naturelle. It was also supported by exhaustive taxonomic work on teratological anomalies and comparisons with lesser morphological variations (*New Dictionary of Scientific Biography*).

Isidore Geoffroy Saint-Hilaire's biological ideas fall within the school of French transformism, the influence of which

militated against the acceptance of Darwinian evolution in France. Isidore himself did not comment extensively on Darwin's theory of natural selection, although the *Histoire naturelle générale* contains a few references to Darwin's work—see in particular Vol. III, chapter 20, pp. 551 and 552 of our manuscript. Posthumous sources “make clear his reservations about Darwin's evolutionary theory, and like so many others he could not accept natural selection as a sufficient engine of biological diversity” (*New Dictionary of Scientific Biography*).

The final expression of Isidore Geoffroy Saint-Hilaire's theory of limited variability of type can be found in his *Histoire naturelle générale des règnes organiques*, a work that he began publishing in 1854 and left unfinished at his death seven years later, and of which we are offering key portions of the manuscript. According to the work's “Division de l'ouvrage” (Vol. I, pp. xx-xxiii), the *Histoire naturelle générale* was to have consisted of six sections ranging from an “Introduction historique” to an essay on “Philosophie naturelle,” combining to form a single grand system of biology. However, Isidore was able to complete only the first section and two *livres* of the second, leaving the final three chapters in manuscript at his death. The work was issued in three volumes, with the second part of Vol. III appearing posthumously.

Our manuscript consists of ten chapters of the *Histoire naturelle générale*, all of which form part of the work's “Seconde partie” (Part Two), devoted to “Notions biologiques fondamentales” (Fundamental biological ideas). This part is divided into two *livres*, the first of which is titled “Des règnes organiques” (The organic realms). Our manuscript includes the seventh and final chapter of this *livre*, “Des caractères qui distinguent l'homme des animaux, et du règne humain” (On the characteristics that distinguish men from animals, and on the human kingdom). Within this chapter are nineteen sections discussing man's intellectual and moral qualities, the biological classification of the human species, and the characteristics that distinguish humans from the rest of the animal kingdom. The last three paragraphs of the chapter are not present in the manuscript.

The remaining nine chapters present in our manuscript—chapters 3-7 of Volume II and 17-20 of Volume III—are all from the second *livre* of Part Two, titled “De l'espèce chez les êtres organisés” (On species in organized beings). Chapters 3-7 of Volume II contain a detailed discussion of the notion of species and of the evolution of the species concept from ancient times to the mid-nineteenth century, together with an analysis of the views of important writers on the subject, and Isidore's own definition of the term. Chapter 3 lacks all of its third section and the first 2-1/2 lines of its fourth; chapter 6 does not include the long “Note bibliographique” found at the end of the printed version. Chapters 17-19 of Volume III form part of Isidore's discussion of limited variability of type, as demonstrated in domesticated species, species that have reverted from domesticity to a wild

state, and undomesticated species affected by human influence. Chapter 20, which the author left unfinished, contains his conclusion in favor of his theory of limited variability and his responses to arguments against it. A note at the end of Volume III of the printed work indicates that the final three chapters were printed directly from the manuscript “sans additions ni retranchements” (without additions or revisions).

The more than 420 pages of manuscript that we offer represent very significant essays on key topics concerning evolution in man and animals. They include major essays on species and variation, and on anthropology. The manuscript pages are riddled with corrections, deletions, and revisions. Though they do not represent the complete manuscript of Geoffroy Saint Hilaire's published work, each of these lengthy chapters is a significant work in itself. Together this collection of manuscripts represents the most extensive original manuscript on evolution in the nineteenth century to be offered for sale in decades. Mayr, *The Growth of Biological Thought*, pp. 362-371. 40416

A tabular comparison of the manuscript to the printed text of *Histoire naturelle générale des règnes organique* (provided with the manuscript) is available.