

THE

HASKELL F. NORMAN COLLECTION

OF SCIENCE & MEDICINE



SELECTIONS *Exhibited for the*

INTERNATIONAL CONGRESS OF BIBLIOPHILES

San Francisco

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INTRODUCTION

THROUGHOUT the 1950's and my boyhood in the Norman family, we became exceptionally well-known to the clerks at our small town post offices in Kentfield and Ross, California, since packages of books ordered by Dad, otherwise known as Dr. Haskell Norman, would arrive just about every day of the year. The local postal clerks would have been even more impressed had they known that an equal number of book packages were also arriving at Dad's San Francisco office.

What started the comparative flood of books was the initial purchase, for the munificent sum of \$75, of the first edition of Freud's *Die Traumdeutung* (1900). This was in 1950 or 1951, and it represented a good, logical choice for a practicing psychiatrist and psychoanalyst. But as we all know, one rare book by itself is not all that interesting, especially to someone with the instincts of a collector, so one Freud first edition soon became a complete collection of first and later significant editions of Freud. Study of Freud's place in the history of psychiatry led to the systematic building of a comprehensive library of books, pamphlets and periodicals in the history of psychoanalysis and psychiatry, including major collections on witchcraft and mesmerism. Practical use of the collection was made when Dad taught regular courses on the history of psychiatry at the University of California School of Medicine, San Francisco, in addition to his clinical courses at the San Francisco Psychoanalytic Institute.

The flow of books into the Norman household continued pretty much unabated through the 1960's, except when interrupted by illness or the occasional vacations from the hobby which collectors take to recharge their acquisitive ardor and/or their bank accounts. But gradually it became more and more difficult to find significant psychiatric books not already present in the collection, and Dad began to widen the scope of his collecting to include landmark books in all the sciences. This was in spite of advice in 1960 from the distinguished specialist bookseller, Ernst Weil, that classics of science were already substantially overpriced.

Purchases were made from Weil and Henry Schuman, as well as from Dawsons of Pall Mall, Hugh K. Elliot, Richard Gurney, Bernard Quaritch Ltd., Georges Heilbrun, François Chamonal, Lucien Scheler and Emil Offenbacher. Apart from heavy reading of booksellers' catalogues and the standard histories of medicine and science, desiderata were identified from such trusty guides as Morton's A Medical Bibliography (1943 and later eds.) and Dibner's Heralds of Science (1955). Printing & the Mind of Man (1963, 1967) and Horblit's One Hundred Books Famous in Science (1964) identified more targets for acquisition and also stimulated more collectors and institutional libraries to collect classics in science, making the field more competitive, and of course, more expensive, than in the early years.

During the early 1960's Dad came into contact with the well-known San Francisco bookseller, Warren R. Howell, who was most influential in

emphasizing the importance of condition in book collecting. Another important influence was Herbert M. Evans, discoverer of vitamin E and the growth hormone of the anterior pituitary.

Stimulated to collect by his teacher, Harvey Cushing, Evans built and sold numerous collections of rarities in the history of medicine and science. But unlike Cushing or Sir William Osler, who included a few classics of nonmedical science in their predominantly medical libraries, Evans tended to emphasize the history of science in his collections. Medicine was always strongly represented, but as a subdivision of the history of science as a whole. With this change of emphasis Evans became the true pioneer of collecting rare books in the history of science. His small pamphlet entitled *Exhibitions of First Editions of Epochal Achievements in the History of Science*, describing an exhibition of his books at Berkeley in 1934, inspired such early and prominent collectors as Bern Dibner, Harrison D. Horblit and Robert B. Honeyman.

An articulate and imposing personality until the end, Evans had a flair for the dramatic which would sometimes express itself through the most extreme flattery. Witness his inscription in the copy of *Epochal Achievements* (No. 112): "To my friend, the gifted man, Haskell Norman, a paradigm amongst those who have contemplated the ageless order of immortal nature, how she is constituted and when and why!" Nevertheless, getting to know Evans helped to place the collecting of rare scientific and medical books within historical perspective.

A little more than 50 years after Evans' exhibition, the history of science has become an established field of book collecting, and many of its standard rarities have become very well known to connoisseurs. In this exhibition for the International Congress of Bibliophiles we have therefore avoided displaying standard rarities alone, offering instead a selection of "epochal achievements" from the Norman Collection which we believe will most appeal to sophisticated book collectors.

Rather than arrange the books strictly by subject or author we have grouped them according to their special appeal as bibliophilic objects. Only scientific contributions of the first order have been included, from the 15th to the early 20th centuries, but whenever possible, we display special copies—authors' copies, dedication copies, presentation copies, association copies, or copies in special bindings. Many standard rarities present in the collection have been deliberately omitted unless we felt that we had a special copy to display. On the other hand a few relatively obscure items such as Braid on *Satanic Agency* (No. 118) have been included because their exceptional scarcity has prevented them from becoming more widely known. We have mounted the selection on American science and medicine especially for the Congress delegates from overseas who may be less familiar with the American classics.

The selection of psychiatric books has been limited to a few of the best items acquired during 35 years of collecting. The copy of Freud's *Die Traumdeutung* in the original printed wrappers (No. 122) is not the copy which initiated the collection in 1950. Like many of the volumes throughout this exhibition, it

reflects an upgrade; we believe that collectors should make the effort to improve their copies when the opportunity presents itself. The presentation copy of Freud's *Drei Abhandlungen zur Sexualtheorie* (No. 123) was selected from about 20 inscribed Freud first editions in the collection.

This exhibition includes so many of our favorite books that it is difficult to single out any for special note. However, since about half of the people attending this exhibit or reading this catalogue will be women, and the literature of science throughout history has been, until recently, primarily written by men, it is worthwhile to point out a few of the volumes which involve women. Marie Curie's dissertation (No. 37) remains the greatest contribution to science by a woman. We display the copy she presented to Ernest Rutherford, which he used in preparing his classic book *Radioactivity* the following year. Michael Underwood dedicated his *Treatise on the Diseases of Children*(No. 36) to Queen Charlotte. We display the Queen's specially bound dedication copy, noting that the Queen provided Underwood with plenty of patients since she personally gave birth to no less than fifteen children.

The copy of Breuer and Freud's *Studien über Hysterie* on display (No. 121) was not inscribed by Freud. Nor was it inscribed by Breuer, and this latter fact may be telling because the copy belonged to Breuer's wife, Mathilde, and bears her signature. In his biography of Freud, Ernest Jones points out how understandably jealous Mrs. Breuer became of her husband's close attentions to the intimate problems of a young hysterical woman patient, code-named "Anna O.," whose case material recorded in the book was crucial in the founding of psychoanalysis. Under these circumstances we could understand why Breuer might not have wanted to aggravate the situation further by presenting to his wife a copy of the work which had strained their relationship.

Happier circumstances surround the copy of Helmholtz' *Beschreibung eines Augen-Spiegels*...(No. 41). The copy is lovingly inscribed by Helmholtz to his wife, into whose eyes he first looked with his epochal invention, the ophthalmoscope. The inscription, which I have always considered one of the most romantic in the history of science, may be translated "For Olga, in remembrance that her eye was the first whose interior revealed itself to the searching eye."

This brief exhibition catalogue has been prepared by Diana H. Hook as a prelude to a full-scale annotated bibliographical catalogue of the entire Haskell F. Norman Collection. As every collector knows, the purest pleasure and romance in book collecting comes in the successful acquisition, after long and frequently frustrating pursuit, of the truly rare and desirable objects. But there is also a definite pleasure in sharing the contents of a collection with other collectors and with the scholarly world at large. We plan to do so very thoroughly with a finely designed and printed catalogue of the entire collection, including collations, numerous illustrations, and considerable attention to provenance. Publication is anticipated in 1987.

Jeremy M. Norman



INCUNABULA

1. ARISTOTLE (384-322 B.C.). [Opera omnia, in Greek] Venice: Aldus Manutius, 1 November 1495-June 1498. 6 vols. in 5. Folio, late 16th or early 17th-century French morocco gilt (labels renewed in the 18th century). *Editio princeps* in Greek.

The most monumental achievement of the Aldine Press, representing the first major Greeklanguage prose text to be re-introduced to the Western world by means of the printing press. The six volumes also contain the Greek *editiones principes* of works by Galen, Alexander of Aphrodisias, Philon the Jew, and Theophrastus of Eresos (see No. 5).

SEE ILLUSTRATION PAGE 6.

1A. BAGELLARDO, Paolo (ca. 1425-1492). [De egritudinibus et remediis infantium] [Padua: Vadelzoccho & Septem Arboribus, 21 April 1472] 4to, full calf antique. First edition.

The first printed book devoted exclusively to children's diseases, and the first strictly medical work to be published during the author's lifetime. Bagellardo spent most of his life at Padua, where he taught medicine and philosophy; his treatise is largely derived from the works of the Arab physicians Avicenna and Rhazes (see No. 4).

2. CELSUS, Aurelius Cornelius (fl. A.D. 25). [De medicina octo libri] [Florence: Laurentius, 1478] Folio and 4to, calf antique by the Lakeside Press Bindery. *Editio princeps*.

The oldest Western medical document after the Hippocratic writings, the earliest Western history of medicine, and one of the first medical books to be set in type. It contains the earliest references to insanity (*insania*), heart disease (*cardiacus*), and plastic surgery.

2A. DONDI, Giacomo de (1298-1359). [Aggregator, sive de medicinis simplicibus] [Strassburg: Adolf Rusch (the R-Printer), ca. 1470] Folio, contemporary German binding of blind-stamped calf over oak boards, brass bosses (two restored in modern facsimile) and clasps, contemporary hand-lettered vellum labels on front cover. *Editio princeps*.

An encyclopedic dictionary of medicine, containing a large number of medical recipes based largely upon Greek and Arabic sources. The *editio princeps*, printed by R-Printer Adolf Rusch, is one of the earliest known medical incunables. This copy's magnificent contemporary binding is virtually unrestored.

SEE ILLUSTRATION PAGE 8.

3. [KETHAM, Johannes de (fl. 1460)] Fasciculus medicinae. . . . [Venice: Gregoriis de Forlivio, 15 October 1495] Folio, bound with another work in 18th-century boards. Second Latin edition.

The first edition of this work (Venice, 1491) was the earliest printed medical book with anatomical illustrations of any kind. It was followed by an Italian translation (1493/94), for which the illustrations were redrawn; these new woodcuts, used again in the present edition, display the first signs of the transition from medieval to modern anatomical illustration. The 1491 edition illustrated the female viscera by means of the traditional non-representational



Dondi: No. 2A.

squatting figure of medieval medical manuscripts, but the redrawn woodcuts show the viscera in a seated female figure, whose position corresponds to a real situation. Four of the woodcuts are of the school of Gentile Bellini, and are among the most attractive of the period.

4. RHAZES [Abu Bakr Muhammad ibn Zakariya al-Razi] (d. 923/4). [Liber ad Almansorem, and other treatises] [Milan: Pachel & Scinzenzeler, 14 February 1481] Folio, quarter calf antique over wooden boards, by Robert L. Lucas. First complete edition.

The ten books of al-Razi's *Liber ad Almansorem* contain the first printing of his *De curis puerorum in prima aetate*, the first entire treatise devoted to children's diseases. The ninth book, a noted textbook of pathology and therapeutics, appeared separately in 1472/73. Among the other treatises included in this volume are the first editions of five works by Hippocrates, and of one by Galen.

5. THEOPHRASTUS of Eresos (ca. 380-ca. 207 B.C.). [De historia et causis plantarum] [Treviso: Bartholomaeus Confalonerius, 20 February 1483] Folio, old mottled boards, rebacked and recornered in tan morocco. *Editio princeps*.

The earliest work of scientific botany. Part of the work is devoted to plant lore and the medicinal uses of plants, making it the earliest complete extant herbal and pharmacopoeia as well. Theophrastus, a student of Aristotle, succeeded his teacher as head of Athens' Peripatetic School. His system of botanical classification, analogous to the zoological system in Aristotle's *Historia animalium*, maintained its authority until the advent of the microscope in the mid-sixteenth century. From the Landau library, with bookplate.

6. VALASCO de Taranta (ca. 1382-ca.1417). De epidemia et peste. [Basel: Martin Flach, ca. 1474] Folio, calf antique. First separate edition.

One of the earliest medical incunables. Valasco's treatise on the plague, first printed in Arnaldus de Villanova's *De arte cognoscendi venena* (1473), is one of his two surviving works, the other being his *Philonum pharmaceuticum et chirurgicum de medendis omnibus*, which brought him such fame that he was appointed physician-in-chief to Charles VI of France.

PRE-VESALIAN ANATOMY

7. BERENGARIO DA CARPI, Giacomo (ca. 1460-1530). Commentaria cu[m] amplissimis additionibus super anatomia Mu[n]dini. ... Bologna: Benedetti, 1521. 4to, 18th-century half vellum, rebacked. First edition.

The most important forerunner of Vesalius' *Fabrica*. Berengario introduced iconography and independent anatomical observation into the teaching of anatomy, and his commentary on the 14th-century *Anatomia* of Mondino was the first work since the time of Galen to be based largely upon personal experience. The architectural title-border, with its dissection vignette, was designed for the *Commentaria*, and the illustrations show a number of innovations that were later adopted by Vesalius. This copy is from the library of Johann Friedrich Blumenbach, the founder of modern anthropology.

8. BERENGARIO DA CARPI. Isagogae breves perlucide ac uberime in anatomia humani corporis.... [Bologna: Benedetti, 1522] 4to, vellum antique. First edition.

A condensed and updated version of the previous work, prepared as a manual for Berengario's students to replace his now-obsolete *Commentaria*. The woodcut illustrations are believed to be the first made directly from observations of human dissections. "Several... of Berengario's illustrations [such as the vein, heart and brain figures] seem to incorporate techniques learned from Leonardo [da Vinci]" (Herrlinger, *History of Medical Illustration*, p. 83).

9. BERENGARIO DA CARPI. Isagogae breves perlucide ac uberrime in anatomicam humani corporis. . . . [Bologna: Benedetti, 1523] 4to, later half sheep. Second edition.

The second edition of Berengario's *Isagogae breves* contains three more anatomical woodcuts than the first, including an important illustration of the brain from above that represents the transition from medieval to modern theories of cerebral anatomy. The title-leaf displays a slightly altered version of the architectural border first used in the *Commentaria*.

10. BERENGARIO DA CARPI. Tractatus de fractura calve sive cranei. [Bologna: Benedetti, 1518] 4to, contemporary vellum. First edition.

The first book devoted to neurology—in this case, specifically to head injuries. The work was inspired by Berengario's treatment of the skull fracture suffered in 1517 by Lorenzo de'Medici.

11. DRYANDER [Eichmann], Johannes (1500-1560). Anatomia capitis humani. . . . Marburg: Cervicornus [Hirtzhorn], 1536. 4to, full morocco antique. First edition.

The first significant book on the anatomy of the head, and one of the earliest anatomical works with illustrations after the author's own dissections. Dryander studied anatomy at Paris at the same time as Vesalius, and was one of the first in Germany to perform public dissections. He intended the *Anatomia capitis* to serve as the preliminary to a full-scale anatomy, a scheme partially realized with the publication of the following work.

12. DRYANDER. Anatomia capitis humani, hoc est, corporis humani dissectionis pars prior . . . [all published]. Marburg: Cervicornus [Hirtzhorn], 1537. 4to, modern red morocco. First edition.

Dryander's 1537 Anatomia contains a more extensive anatomy of the human head than the previous work, includes material on the lungs and heart, and has eight new woodcuts. The folding table was reset, with some minor changes, from the table in the 1536 Anatomia.

13. HUNDT, Magnus, *the Elder* (1449-1519). Antropologium de ho[min]is dignitate, natura, et p[ro]prietatibus. . . . [Leipzig: Wolfgang Stöcklin, 1501] 4to, calf antique, bound by Ivor Robinson, Fellow of the Designer Bookbinders, in a modern interpretation of 15th-century binding style.

Hundt's Antropologia contains the most complete representation of the internal parts that had been published up to that time, and provides a clear picture of late fifteenth-century anatomical concepts prior to the work of Berengario da Carpi.

SEE ILLUSTRATION PAGE 11.



HUNDT: No. 13. Hundt's diagram of the internal organs is in the mediaeval formal tradition, making no attempt at "true-to-life" representation; viz. the odd placement of the kidneys at the lower left and the erroneous five-lobed liver.

VESALIANA

14. [VESALIUS, Andreas (1514-1564), *editor*] Guenther, Johannes (1505-1574). Institutionum anatomicarum secundum Galeni sententiam. . . . Venice: Bernardinus, 1538. 16mo, contemporary limp vellum. First edition edited by Vesalius.

Vesalius' unauthorized revision of the *Institutiones anatomicae*, a Galenic anatomical text by his teacher Jean Guenther, incorporated many of his own observations, and "was superior as a dissection manual to Guinter's original [1536] edition or, indeed, to anything else that was available" (O'Malley, *Vesalius*, p. 94). This is believed to be Vesalius' copy, as it contains notes in a hand very similar to his, indicating alterations to be made in the text.

15. VESALIUS. . . . Epistola, docens venam axillarem dextri cubiti in dolore laterali secandam. . . . Basel [Robert Winter, 1539]. 4to, full brown morocco by Sangorski & Sutcliffe. First edition.

The importance of Vesalius' letter on venesection (now exceptionally scarce) lies in the authority it gave to his own observations of the structure of the venous system, which often differed radically from the teachings of the classical authorities. "Henceforth the debate on venesection [a controversial topic in Vesalius' day] could be carried on properly only by resort and reference to the dissection table" (O'Malley, *Vesalius*, p. 96).

16. VESALIUS. De humani corporis fabrica. Basel [Oporinus], 1543. Folio, bound for Emperor Charles V in imperial purple silk velvet. First edition.

The foundation work of modern anatomy. This copy, with its imperial velvet binding and splendidly hand-colored woodcuts, is the finest in existence; no other completely colored copies are known. This is almost certainly the copy (recorded in Vesalius' charter of ennoblement) that Vesalius presented in person to the dedicatee, Charles V, upon the eve of the emperor's military campaign in Gelders. Charles later presented this copy to French ambassador Jacques Mesnage; the imperial inscription appears on the front flyleaf.

17. VESALIUS. De humani corporis fabrica. Lyons: Jean de Tournes, 1552. 16mo, bound for 16th-century bibliophile Pietro Duodo in full citron morocco gilt, attributed to French royal binder Clovis Eve. Second edition.

An unauthorized and unillustrated pocket edition of the *Fabrica*. This copy's binding is typical of those executed for Pietro Duodo, ambassador to the court of Henri IV from 1594-1597. Esmerian attributes the Duodo bindings to Clovis Eve, *relieur ordinaire* to Henry IV and Louis XIII, but recent research indicates that the bindings may have been executed by the anonymous Parisian "atelier of the second palmette" (see Breslauer Catalogue 104, Part II, No. 195). SEE ILLUSTRATION PAGE 13.

18. GEMINUS, Thomas (ca. 1510-1562). Compendiosa totius anatomie delineatio. London [John Herford, October 1545]. Folio, near-contemporary green vellum. First edition.

The introduction of Vesalian anatomy to England. Geminus clearly stated Vesalius' authorship in the headline on the first leaf of text, but Vesalius complained in his *China-Root Epistle* about Geminus' unauthorized publication, so that the *Compendiosa* has always been considered the first of many plagiarisms of Vesalius' anatomical works. An engraver, printer and instrumentmaker as well as physician to Henry VIII, Geminus improved upon Vesalius' illustrations by engraving them in copperplate, giving them a clarity of line impossible even in Vesalius' highly finished woodcuts. The *Compendiosa* was the second English book to be illustrated with copperplate engravings, and the first to contain an engraved title, which Hind (*Engraving in England*, Vol. I, p. 44) called "the first engraving of any artistic importance produced in England."

19. GEMINUS. Compendiosa totius anatomie delineatio. . . . London [Nicolas Hyll for Thomas Geminus, 1553]. Folio, 18th-century rough calf, rebacked. First edition in English, first issue, with undated title.

The first English rendition of Vesalius' anatomical work, published to remedy the urgent need of England's "un-Latined" barber-surgeons for a dissection manual in their own tongue. As it was subjected to constant use, the first English Geminus is very rare: fewer than a dozen copies are recorded, with over half of these imperfect. This is the only perfect copy known in private hands.

For Vesaliana listed under other headings, see Nos. 82 and 84A.





VESALIUS: No. 17.

AUTHORS' COPIES

20. ASTON, Francis William (1877-1945). Isotopes. London: Edward Arnold, 1922. 8vo, original blue cloth. First edition.

By inventing the first mass spectrograph, Aston was able to discover that elements are composed of atoms of varying mass ("isotopes"), the average of which equals an element's atomic weight. Aston maintained a continuing record of his atomic researches by publishing revised editions of his *Isotopes*; this author's copy, signed on the front paste-down, shows numerous holograph alterations and additions to the tables on pp. 89 and 143 (this is one of two annotated author's copies in the Norman collection). Bookplate of chemist-bibliophile Franz Sondheimer.

21. BONNET, Charles (1720-1793). Considerations sur les corps organisés. Amsterdam: Rey, 1762. 2 vols. 8vo, contemporary mottled calf. First edition.

Distinguished for his theoretical and experimental work (he discovered parthenogenesis in aphids), Bonnet is considered one of the founders of modern biology. The present work puts forth his influential ovist doctrine of "encapsulation," stating that all female living beings contain within them germ cells bearing preformed offspring. Bonnet used this copy to prepare a revised edition, beginning his task (according to his manuscript notes on the flyleaves of both volumes) on 23 February 1778 and completing it on 28 August. We can find no evidence that this revised edition was ever published.

22. ESQUIROL, Jean Etienne Dominique (1772-1848). Des maladies mentales. . . . Paris: Baillière, 1838. 2 vols. in 4, plus *Atlas*. 8vo, contemporary quarter morocco. First edition.

The first modern textbook of psychiatry. Esquirol created new descriptions and classifications of mental illness (foreshadowing several modern concepts), and was one of the first to use statistical methods in his clinical studies. This is Esquirol's interleaved copy, containing copious revisions in the author's hand—almost certainly made for a revised edition, although none was ever published. The annotations cease after page 512 of Vol. II, and it is likely that Esquirol's task was interrupted by his death.

23. GLISSON, Francis (1597?-1677). De rachitide sive morbo puerili, qui vulgo the rickets dicitur... London: Du Gardi for Sadler and Beaumont, 1650. 8vo, contemporary calf, rebacked. First edition.

The fullest and most important contemporary account of rickets, and one of the earliest instances of collaborative medical research in England, combining the observations of Glisson, Ahasuerus Regemorter, George Bate and five lesser contributors. Glisson's account of the disease constitutes a major portion of the work, and contains the first description of infantile scurvy. This copy has been signed and annotated by Dr. Ahasuerus Regemorter, one of the three principal collaborators.

24. LAMARCK, Jean Baptiste (1744-1829). Systême des animaux sans vertebres.... Paris: Chez l'auteur; Deterville, An X— 1801. 8vo, contemporary quarter sheep. First edition.

The "Discours d'ouverture" of Lamarck's *Systême* contains the first published statement of his theory of species development, including his famous theory of the inheritance of acquired characteristics. The *Systême* was also the first zoological work to employ the term

"invertebrates." Lamarck's interleaved copy contains numerous autograph corrections and additions.

25. LARREY, Dominique Jean, *Baron* (1766-1842). Mémoire sur l'ophthalmie regnante en Egypte. Cairo: l'Imprimerie Nationale, An IX [1800]. 4to, bound with 12 other Larrey pamphlets in contemporary quarter red morocco, marbled boards. First edition.

Larrey, Surgeon-in-Chief of Napoleon's *Armée d'Orient*, was one of the greatest military surgeons in history. While serving in Napoleon's Egyptian campaign, he observed cases of trachoma among the natives, and was the first to recognize its contagious nature. He published his account of the disease in this rare pamphlet, printed in Cairo during the French occupation. This copy is part of a collection of pamphlets from Larrey's library bound together by his son Hippolyte; Larrey's signature appears on the title, and Hippolyte's on the last page.

26. PASTEUR, Louis (1822-1895). "Sur la rage." Offprint from: Comptes rendus des séances de l'Académie des Sciences, XCII. [Paris: Gauthier-Villars, 1881] 8vo, original blue wrappers, bound in modern cloth. First separate printing.

Pasteur's first memoir on rabies, reporting his successful experiments in inducing the disease in animals. Pasteur's researches led to the development of his famous rabies vaccine, whose success gave great impetus to the campaign to extend immunization to other human diseases. This copy is from Pasteur's library, and contains a long marginal note in his hand on the first page.

27. PURKINJE, Jan (1787-1869), and Valentin, Gabriel Gustav (1810-1883). De phaenomino generali et fundamentali motus vibratorii continui in membranis....Wratislava [Breslau]: Schulz, 1835. 4to, contemporary boards. First edition.

The discovery of ciliary epithelial motion. The Norman copy is interleaved throughout and bears Dr. Valentin's corrections, revisions and notes; his signature and ownership stamp appear on the title.

28. SIMPSON, Sir James Young (1811-1870). Anaesthesia, or the employment of chloroform and ether in surgery, midwifery, etc. Philadelphia: Lindsay & Blakiston, 1849. 8vo, original black cloth. First edition.

Simpson introduced inhalation anaesthesia into obstetrics, and popularized the use of chloroform as a replacement for sulphuric ether. The practice of anaesthesia in childbirth was opposed by those who considered labor pains a God-given punishment for Eve's sins, but Simpson's cause was vindicated when, in 1853, Queen Victoria took chloroform for the birth of Prince Leopold. This American volume is the first edition in book form of Simpson's writings on anaesthesia, representing the first full-dress exposition of his use of anaesthesia in childbirth and major surgery. This copy was signed twice by the author.

29. THOMSON, Joseph John (1856-1940). Notes on recent researches in electricity and magnetism. . . Oxford: Clarendon Press, 1893. 8vo, contemporary black buckram. First edition.

Thomson's book includes the first comprehensive account in the English language of the discharge of electricity through gases, a phenomenon that eventually led to his discovery of the

electron. This interleaved copy contains hundreds of the author's unpublished annotations. For an author's copy listed under a different heading, see No. 14.

DEDICATION COPIES

30. BOUGUER, Pierre (1698-1758). Traité du navire, de sa construction, et de ses mouvemens. Paris: Jombert, 1746. 4to, contemporary full crimson morocco gilt, with arms of the dedicatee, the Comte de Maurepas, on front and rear covers. First edition.

The first treatise on naval architecture written on a scientific basis. The present copy is from the library of the dedicatee, the Comte de Maurepas, head of France's Department de la Marine and sponsor of the famous French geodetic voyage of 1735, which sent Bouguer, along with La Condamine, Godin and Jussieu, to Peru to measure a degree of a meridian at the Equator.

31. CUVIER, Georges L. C. F. D., *Baron* (1769-1832). Tableau élémentaire de l'histoire naturelle des animaux. Paris: Baudouin, An 6 [1798]. 8vo, contemporary olive green morocco gilt with red gilt morocco onlays, rose silk endleaves with floral gilt borders, by Pierre-Joseph Bisiaux, with his binder's ticket. First edition.

Cuvier is generally regarded as the founder of modern comparative anatomy; his first book contains the earliest statement of his natural classification of the animal kingdom. Cuvier presented this large-paper copy, with its unique printed dedication leaf, to his patroness Mme. M. E. Leparmentier-d'Héricy, a member of the wealthy and noble family with whom Cuvier spent six years as private tutor. Leather book label of Mortimer Schiff, collector of fine French bindings (see de Ricci, *French Signed Bindings in the Schiff Collection*, II, No. 127).

32. DEMOURS, Antoine (1762-1836). Traité des maladies des yeux . . . suivi de la description de l'oeil humain, traduite de latin de S. T. Soemmerring. . . . Paris: the author [etc.], 1818. 3 text vols. plus atlas. 8vo (text) and 4to (atlas), bound for dedicatee Louis XVIII of France in contemporary tree calf gilt, with the royal arms on all covers. First edition.

This elaborate treatise on the diseases of the eye includes the first full description of glaucoma, which Demours credited to his father. Demours' work also contains the first French translation of Soemmerring's *Abbildung des menschlichen Auges* (1801), a foundation of all modern research on the structure of the eye. Demours was royal ophthalmologist to Louis XVIII, for whom this dedication copy was originally bound.

33. HAVERS, Clopton (ca. 1655-1702). Osteologia nova, or some new observations of the bones. . . . London: Samuel Smith, 1691. 8vo, bound for dedicatee Thomas Herbert, eighth Earl of Pembroke, in red morocco gilt. First edition.

The first complete and systematic study of the structure of the bones, giving the first full description of the microscopic structure of the passages ("Haversian canals") that accomodate blood-vessels. This copy was bound for the dedicatee, the Earl of Pembroke, and displays the characteristic Pembroke library binding described in de Ricci's *English Collectors of Books & Manuscripts*, pp. 40-41.

34. HERSCHEL, Sir John (1792-1871). Results of astronomical observations made during the years 1834, 5, 6, 7, 8, at the Cape of Good Hope.... London: Smith, Elder, 1847. 4to, contemporary full black morocco. First edition.

Herschel's monumental survey of the stars of the Southern Hemisphere completed the task begun by his father William Herschel, who fifty years earlier had catalogued the northern celestial hemisphere. This copy bears the author's presentation inscription to the Dowager Duchess of Northumberland; Herschel dedicated his work to the memory of Hugh, Duke of Northumberland, Chancellor of Cambridge University, who died before it was published.

35. LANCISI, Giovanni Maria (1654-1720). Dissertatio de nativis. . . cui accedit historia epidemia rheumaticae. . . . Rome: Francisco Gonzaga, 1711. 4to, contemporary crimson morocco gilt, with the arms of dedicatee Pope Clement XI. First edition.

Lancisi, best known for his contributions to cardiology, was also interested in public health. The present work examines the health-affecting aspects of the Roman environment, and describes the European influenza epidemic of 1709. This copy was bound for the dedicatee, Pope Clement XI, whom Lancisi served as papal physician.

36. UNDERWOOD, Michael (1737-1820). A treatise on the diseases of children. London: J. Mathews, 1784. 8vo, bound for Queen Charlotte (consort of George III of England) in full crimson straight-grain morocco. First edition.

The founding work in English of modern pediatrics, containing the most recent contemporary research and discoveries in the field of children's diseases. The work contains accounts of nearly 40 "new disorders" of children, including the first description of sclerema neonatorum ("Underwood's disease"). This is the dedication copy, from the library of George III's consort, Queen Charlotte—an appropriate dedicatee, as she bore 15 children during her marriage.

For a dedication copy listed under another heading, see No. 16.

PRESENTATION COPIES

37. CURIE, Marie Sklodowska (1867-1834). Recherches sur les substances radioactives... Paris: Gauthier-Villars, 1903. 8vo, contemporary green cloth. First edition.

Marie Curie's doctoral dissertation was the first work to integrate all of her investigations on radioactivity from 1897 to 1903, her most creative and fruitful period of scientific research. This is one of the most important association copies extant, as it was presented by Curie to Ernest Rutherford, who hypothesized the existence of the atomic nucleus and was the first to split the atom.

38. DARWIN, Charles (1809-1882). Narrative of the surveying voyages of His Majesty's Ships Adventure and Beagle. . . Vol. III. London: Henry Colburn, 1839. 8vo, original presentation binding of dark blue blindstamped cloth with spine title reading "Darwin's Journal" and no spine imprint; rebacked retaining original spine. First edition.

Darwin's first published book, popularly known as the Voyage of the Beagle, continues to be the

most widely read of his writings. This copy, in a presentation binding unrecorded by Freeman, bears Darwin's presentation inscription to Dr. Andrew Smith, British Army Assistant Staff Surgeon at Cape Town, South Africa, whom Darwin visited when the *Beagle* landed at South Africa on her return voyage.

39. EHRLICH, Paul (1854-1915) and Hata, Sahachiro (1873-1938). Die experimentelle Chemotherapie der Spirillosen. Berlin: Springer, 1910. 8vo, contemporary half cloth. First edition. [*with:*] Another copy, in original cloth.

Ehrlich's quest for a "magic bullet"—a specific drug to seek out and destroy invading bacteria without harming healthy tissue—led to the great advance in therapeutics known as chemotherapy. The first such specific that Ehrlich and Hata developed was salvarsan, which destroyed the spirochete responsible for syphilis. Exhibited are two copies with Ehrlich's presentation inscriptions, the first to Professor R[ichard?] Sachs, and the second (in laboratory grease pencil, used for marking test tubes) to an unknown recipient.

Seiner Olga zum Gedarchtnisse daran, daß ihr Ange das enste war, dessen Hintergrund sich dem forochenden Ange en Ischleimte, BESCHREIBUNG EINES **SPIEGELS** AUGE der Verfasser ZUR UNTERSUCHUNG DER NETZHAUT IM LEBENDEN AUGE VON H. HELMHOLTZ. PROFESSOR DER PHYSIOLOGIE AN DER UNIVERSITAET ZU KOENIGSBERO. BEALIN. A. FÖRSTNER'SCHE VERLAGSBUCHHANDLUNG. C. JEANREMAUD. 1851.

HELMHOLTZ: No. 41. (Detail.) 40. EUCLID (fl. 300 B.C.). [Elements, in Greek] Basel: Johann Herwagen, 1533. Folio, contemporary blind-stamped pigskin over oak boards, brass clasps, gauffred edges. *Editio princeps* in Greek.

The oldest mathematical textbook still in common use. This first Greek edition—the only complete one published before the 18th century—was edited by the German theologian Simon Grynaeus, who inscribed this copy elegantly in red ink to Walter Herman Ryff of Strassburg, the controversial author and compiler of numerous 16th-century medical and surgical texts.

41. HELMHOLTZ, Hermann L.F. von (1821-1894). Beschreibung eines Augen-Spiegels zur Untersuchung der Netzhaut im lebenden Auge. Berlin: A. Förstner, 1851. 8vo, original yellow printed wrappers. First edition.

One of the greatest events in the history of ophthalmology was Helmholtz' invention of the ophthalmoscope, which made possible the first studies of the interior of the living eye, and vastly improved the capacity for diagnosing pathological conditions. This copy has a particularly romantic association, having been presented to Helmholtz' wife Olga, "in remembrance that her eye was the first whose interior revealed itself to the searching eye."

SEE ILLUSTRATION PAGE 18.

42. HOOKE, Robert (1635-1703). Micrographia: or some physiological descriptions of minute bodies made by magnifying glasses. London: Martyn & Allestry, 1665. Folio, contemporary calf, rebacked. First edition, first issue, with title in red and black.

Hooke's *Micrographia* was not only the first book devoted entirely to microscopical observations, but also the first to pair its descriptions with profuse and detailed illustrations. This graphic portrayal of the hitherto unknown microscopic world had an impact rivalling that of Galileo's *Sidereus nuncius* (1610), which contained the first published descriptions and illustrations of the extraterrestrial world as seen through the telescope. Hooke's presentation inscription to his friend Mr. Godfry appears on the verso of the first leaf; to our knowledge, this is the only presentation copy of the first edition extant.

See illustration page 20.

43. HOWARD, John (1726?-1790). The state of the prisons in England and Wales. . . . Warrington: W. Eyres for T. Cadell & N. Conant, 1777. 4to, contemporary morocco gilt. First edition.

The first major practical work on prison reform. Appalled by the corrupt management and disease-ridden squalor of English jails, Howard campaigned for improved jail sanitation and medical care, and for the institution of county-paid jailers' salaries to replace the customary fees extorted from prisoners. This copy displays an unusual presentation binding, incorporating the author's inscription to the recipient on the spine.

44. HUTTON, James (1726-1797). "The theory of the earth." Offprint from: *Transactions of the Royal Society of Edinburgh*, I. [Edinburgh, 1787?] 4to, original marbled wrappers, bound in later half morocco. First printing.

Hutton's revolutionary doctrine of Uniformitarianism, which states that the earth was shaped solely by the operation of currently observable natural processes, represents the foundation of modern geology. According to the *Dictionary of Scientific Biography*, offprints of Hutton's paper were in circulation at least a year before its appearance in the *Transactions of the Royal Society of Edinburgh*. Hutton presented this copy to Lord Daer, immortalized in a poem by



Hooke mentioned Godfry often in his diaries.

Robert Burns praising his modesty and unassuming manner. Autograph manuscript in the hand of geological historian Archibald Geikie tipped in.

45. HUYGENS, Christiaan (1629-1695). Traité de la lumière. Leiden: vander Aa, 1690. 4to (large paper copy), contemporary vellum. First edition, first state, with the author's initials on the title.

The first publication of Huygens' epochal wave or pulse theory of light, contradicting the corpuscular theory put forth in Newton's *Principia*. Modern theories ascribe both corpuscular and wave features to the physical properties of light. Huygens inscribed this copy to [Nicolas Frémont?] d'Ablancourt, made a marginal addition to the text on p. 110, and (presumably) corrected many of the diagrams.

46. LAENNEC, René Théophile Hyacinthe (1781-1826). De l'auscultation médiate.... 2 vols. Paris: Brosson & Chaude, 1819. 8vo, contemporary quarter calf gilt. First edition, second state?

Laennec's invention of the stethoscope, announced in his *Treatise on Mediate Auscultation*, represents the greatest advance in physical diagnosis between Auenbrugger's percussion and the discovery of X-rays. Laennec presented this copy to his cousin Mériadec Laennec, who studied medicine under Laennec, wrote his own thesis on auscultation in 1821, and prepared the third edition of *De l'auscultation médiate* in 1831. Leaf a*2 exists in 2 states, with minor variations: in this copy, it is a cancel, but Dr. Norman also has a copy in original wrappers in which the original leaf is preserved.

47. LAVOISIER, Antoine Laurent (1743-1794). Traité élémentaire de chimie. . . . Paris: Cuchet, 1789. 2 vols. 8vo, original paste paper wrappers. First edition, second issue.

The first modern textbook of chemistry. Lavoisier established the necessity of accurate measurements and the principles of modern chemical nomenclature, discovered the law of conservation of mass, and demolished the phlogiston theory by establishing the role of oxygen in combustion. Lavoisier presented this copy to natural historian Michel Adanson, a promoter and deviser of natural classification systems; Adanson annotated his copy exceptionally thoroughly, and noted the source of the gift on the title-page of the first volume. Bookplate of Denis I. Duveen, co-author of the Lavoisier bibliography.

SEE ILLUSTRATION PAGE 22.

48. LIVINGSTONE, David (1813-1873). Missionary travels and researches in South Africa... London: John Murray, 1857. 8vo, contemporary half calf. First edition.

Livingstone was the greatest of the nineteenth-century African explorers, and his contributions to European knowledge of African geography and ethnography remain virtually unequalled. This presentation copy, inscribed twice by the author, was once in the library of Dr. A.N.L. Munby, who lent it to be displayed in the British Museum's "Printing and the Mind of Man" exhibition (1963).

49. [LOCKE, John (1632-1704)] An essay concerning humane understanding. London: Eliz. Holt for Thomas Basset, 1690. Folio, contemporary calf, rebacked retaining original spine. First edition, first issue.

TRAITÉ ÉLÉMENTAIRE DE CHIMIE,

PRÉSENTÉ DANS UN ORDRE NOUVEAU

ET D'APRÈS LES DÉCOUVERTES MODERNES;

Avec Figures :

Par M. LAVOISIER, de l'Académic des Sciences, de la Société Royale de Médecine, des Sociétés d'Agriculture de Paris & d'Orléans, de la Société Royale de Londres, de l'Inflitut de Bologne, de la Société Helvéiique de Basle, de manutade celles de Philadelphie, Harlem, Manchester, and Say Supably Padoue, &c.

TOME PREMIER. rue & Day clay Sciences de la S' nou all True

LAVOISIER: No. 47. Adanson's note (dated 1789) on the source of this copy appears just above and below the imprint.

One of the most influential Western philosophical and political treatises, Locke's *Essay*, with its emphasis on individual consciousness, also laid the foundations of modern psychology. This copy presumably was presented by Locke to Sir Isaac Newton, as Locke himself made the two corrections to the "Epistle Dedicatory" that in other copies are in the hand of an unidentified amanuensis. Several leaves show evidence of Newton's peculiar habit of "dog-earing" to mark places in the text. The Musgrave bookplate and the two sets of shelfmarks are characteristic of books from Newton's library, as is the Huggins bookplate over which the Musgrave plate has been pasted. See No. 60.

50. PASTEUR, Louis (1822-1895). Thèses de physique et de chimie. ... Paris: Bachelier, 1847. 4to, original green wrappers. First edition.

One of the few truly important scientific dissertations, marking the foundation of stereochemistry, which opened the way to a consideration of the disposition of atoms in space. Although overshadowed by his better-known achievements in microbiology, Pasteur's early work in stereochemistry represents one of his most profound and original contributions to science. Pasteur presented this copy to Charles Chappuis, his most intimate friend.

51. RUSSELL, Bertrand (1872-1970) and Whitehead, Alfred North (1861-1947). Principia mathematica. Cambridge: Cambridge University Press, 1910-1913. 3 vols. 8vo, original blue cloth. First edition.

A landmark in the history of mathematical logic, representing the authors' attempt to deduce the whole of mathematics from a few primitive logical principles. Russell and Whitehead presented this copy to fellow mathematical philosopher Philip Jourdain, whose *Philosophy of Mr.* $B^{*rtr^{*}nd} R^{*ss^{*}ll}$ (1918) remains one of the most important critiques of Russell's logical ideas. Jourdain's critical annotations in Vol. I are analyzed in Grattan-Guiness' *Dear Russell-Dear Jourdain* (1977).

52. STENSEN, Niels [Steno, Nicolas] (1638-1686). De solido intra solidum naturaliter contento. . . . Florence: sub signo Stellae, 1669. 4to, contemporary boards. First edition.

A landmark in the history of geology and paleontology, Stensen's book contains his theory of fossils as the remains of once-living organisms, and the first attempt to represent geological strata. Stensen was the first to recognize that these strata contain a chronological record of the earth's history. This copy displays the author's presentation inscription on the front free endpaper.

For presentation copies listed under different headings, see Nos. 16, 80, 94, 97, 102, 106-107, 110-112, 119-120, and 123.

ASSOCIATION COPIES

53. BOYLE, Robert (1627-1691). Memoirs for the natural history of humane blood. London: Samuel Smith, 1683/4. 8vo, contemporary calf. First edition, second issue, with cancel title dated as above.

Boyle's most important medical work—one of the first to deal with the scientific analysis of blood—marks the beginning of physiological chemistry. This copy is from the library of John Evelyn, and bears an identifying inscription in the hand of William Upcott (1779-1845), who

first edited Evelyn's diary for publication; his involvement with Evelyn's books and manuscripts is described in Keynes' *John Evelyn: a study in bibliophily* (1968). There are press-marks that might be Evelyn's on both the title and front free endpaper.

54. GRAAF, Regner de (1641-1673). De succi pancreatici natura et usu. . . . Leiden: Officina Hackiana, 1664. 12mo, bound with 4 other works in contemporary vellum. First edition.

De Graaf's experiments on the pancreatic juice are among the earliest researches on the physiology of the pancreas. "De Graaf's account of his unsuccessful attempts to collect pancreatic juice, followed by his eventual success, is one of the most interesting passages in the history of the experimental method"(Fulton, *Selected Readings in the History of Physiology*, p. 167). This copy of the exceptionally rare first edition is from the library of pathologist Rudolph Virchow (see No. 63).

55. HARVEY, William (1578-1657). Exercitatio anatomica de motu cordis. . . Frankfurt: Fitzer, 1628. 4to, contemporary limp vellum, spine repaired. First edition.

The cornerstone of modern physiology, announcing Harvey's discovery and experimental proof of the circulation of the blood. Harvey's discovery revolutionized contemporary concepts of the functions of the heart and blood vessels, and pointed the way to the reformation of all of medicine and physiology. This copy was once owned by Johann Friedrich Blumenbach (see No. 7), who signed it on the title-page and covered its flyleaves with 48 lines of annotations.

56. JUSSIEU, Antoine Laurent de (1748-1836). Genera plantarum secundum ordines naturales disposita. . . . Paris: Herrisant and Barrois, 1789. 8vo, contemporary quarter sheep. First edition.

Jussieu broke away from Linnaeus' artificial sexual system of botanical classification to publish his own natural arrangement of plant genera, based upon the correlation of a wide variety of characteristics. His system began a new era in plant taxonomy. This copy, from the library of Georges Cuvier (see No. 31), is interleaved with 76 sheets of Cuvier's botanical drawings; it was later presented to Sophie Germain by fellow mathematician Sylvestre Lacroix, who had probably received it from Cuvier.

[EXHIBITED WITH:]

57. LAMARCK, Jean Baptiste (1744-1829). ["Extrait des Registres de l'Académie Royale des Sciences, du premier juillet 1789"] [Paris?] 1 July 1789. Autograph manuscript, signed.

Lamarck's favorable review of Jussieu's *Genera plantarum* appears on pp. 5-11 of that work as the privilege of the Académie des Sciences. As in the printed review, Lamarck's manuscript also bears the signatures of [Auguste-Denis] Fougeroux de Bondaroy and [René] Desfontaines.

58. LAVOISIER, Antoine Laurent (1743-1794), and Guettard, Jean (1715-1786). Atlas minéralogique de la France . . . (manuscript title). [Paris: Dupain-Triel] 1770. 16 double-page folio maps, bound in contemporary calf gilt for Secretary of State Henri Bertin, with his (effaced) arms on both covers. First editions, pre-publication state.

The first sixteen maps produced for France's first geological atlas, commissioned by Secretary of State Henri Bertin from mineralogist Jean Etienne Guettard and his protegé Antoine-Laurent Lavoisier (see No. 47). Lavoisier supervised the production of these maps, and participated in their engraving as well; this set was specially bound for Bertin, whose gilt arms, originally tooled on both covers, were probably removed during theFrench Revolution. The atlas was to have contained 230 maps in all, but only 40 were actually completed, 32 of which were published in 1780 under the title *Atlas et description minéralogiques de la France*. The maps here probably represent a trial or pre-publication state of the plates, as they are unnumbered (unlike the maps in the published *Atlas*), and two of them contain additions in manuscript. Duveen and Klickstein were able to locate only two bound collections of these first 16 maps, and the National Union Catalogue lists one such collection in America.

[EXHIBITED WITH:]

59. [GUETTARD, Jean Etienne (1715-1786)] Autograph manuscript diary. [1767] 8vo, contemporary green vellum, leather ties.

Guettard's diary of his and Lavoisier's journey to Vosges, part of their geological tour through eastern France undertaken to obtain data for the *Atlas*. It was after Lavoisier returned from this journey that he began overseeing the production of the *Atlas*' first maps.

60. LOCKE, John (1632-1704). A collection of several pieces of Mr. John Locke, never before printed, or not extant in his works. London: J. Bettenham for R. Francklin, 1720. 8vo, contemporary gilt-ruled calf, rebacked. First edition.

This posthumous collection of miscellaneous pieces includes "The fundamental constitutions of Carolina," the ancestor of the Carolina constitution, representing what appears to be the first attempt to create a written constitution for the colony. This copy, like that of Locke's *Essay* (see No. 49), is from Newton's library, and displays the characteristic bookplates and shelfmarks as previously described.

61. PARKINSON, James (1755-1824). An essay on the shaking palsy. London: Whittingham & Rowland for Sherwood, Neely & Jones, 1817. 8vo, 19th-century three-quarter vellum. First edition.

In this short pamphlet, Parkinson established as a clinical entity the disease that now bears his name, distinguishing it from other forms of palsy and listing its symptoms, which had previously been assigned to various ailments, under the heading of a single disorder. This copy is from the library of neurologist Jean-Martin Charcot, who first coined the eponym "Parkinson's disease." Inexplicably, Parkinson's pamphlet has become one of the rarest of 19th-century medical classics.

62. PLATO (428-347 B.C.). Omnia Platonis opera [in Greek]. Venice: Aldus Manutius, 1513. Folio, 18th-century French morocco gilt, possibly by Lafert or Derome. *Editio princeps* in Greek.

This superb copy of the Aldine Plato is from the library of classical scholar Michael Wodhull (T.F. Dibdin's "Orlando"), the first English translator of Euripides, who amassed a choice library of classical authors during the 18th century. The flyleaf shows Wodhull's characteristic bibliographic notes, discussed in de Ricci, pp. 80-81. Later bookplate of Templeton Crocker.

63. VIRCHOW, Rudolf (1821-1902). Gesammelte Abhandlungen zur wissenschaftlichen Medicin. Frankfurt: Meidinger, 1856. 8vo, contemporary half morocco. First edition.

A representative collection of papers, containing works on thrombosis, embolism, neonatal pathology and leukemia; it appeared two years before Virchow's landmark *Cellularpathologie*, which established the doctrine "Omnis cellula a cellula." This copy has the initials "A. v. G." on the spine, indicating that it was bound for Virchow's contemporary, Albrecht von Graefe, one of the greatest ophthalmic surgeons in history. The copy also was owned by Sir William Osler, whose presentation inscription to McGill University apears on the front free endpaper; this presentation antedates the gift of Osler's library to the university after his death in 1919.

For association copies listed under different headings, see Nos. 81, 95, 103, 109, 114, 117 and 121.

RARITIES

64. ANDERSON, Robert (fl. 1668-1696). The making of rockets. . . . London: Morden, 1696. 8vo, contemporary panelled calf. First edition.

One of the rarest early English treatises on rocketry. Anderson gave the basic rules for rocket construction, and set forth the mathematical formulae for increasing or decreasing a rocket's power, after failing to find any such formulae in the current subject literature. Wing lists only two copies of this work, both in English institutions; one other copy besides this one is known to be in America. Bookplate of E.N. da C. Andrade, noted scientist and bibliophile.

65. BENIVIENI, Antonio (1443-1502). De abditis nonnullis ac mirandis morborum. . . . Florence: Giunti, 1507. 4to, 18th-century quarter sheep. First edition.

The first book on pathological anatomy, containing the earliest post-classical records of autopsies made specifically to determine the cause of death. The decorated initials in this copy display two distinct styles: those in the first part of the book reflect the early 16th-century Italian method of illumination, while those in the second part were executed at a considerably later date.

66. BOLYAI, Janos (1802-1860). "Appendix scientiam spatii absolute veram exhibens...." In: Bolyai, Farkas (1775-1856). *Tentamen juventutem studiosam in elementa matheseos purae*.... Maros Vasarhelyini [Transylvania]: J. & S. Kali, 1832-1833. 2 vols. 8vo, original blue wrappers (Vol. I) and thin blue boards (Vol. II). First edition.

"The most extraordinary two dozen pages in the history of thought" (Halsted), representing Bolyai's independent discovery of non-Euclidean geometry. Appearing four years after Lobachevsky's earliest work on the subject (see No. 70), Bolyai's essay was the first both to declare independence from Euclid's unprovable parallel postulate *and* to formulate an alternative geometry applicable to curved space. Bolyai accomplished this in the face of his father's dire warning about the futility of tackling Euclid's fifth postulate:

"You should not tempt the parallels in this way. I know this way until its end—I also have measured this bottomless night, I have lost in it every light, every joy of my life.... You should shy away from it as if from lewd intercourse, it can deprive you of all your leisure, your health, your peace of mind and your entire happiness. This infinite darkness might perhaps absorb a

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recta ac verum esset Ax. XI; et tum de omnibus facile demonstraretur. Potest igitur c ex a incipiendo ita moveri porro, ut mota ab circa a, (adeaque mota b in a) donec u (prius =R) fiat = σ , ep semper tale sit, ut ab primo non secans illins siz: atque hinc eadem ad a' applicando, potevit a' ex a ita porro moveri, ut ab et a'b', quaevis alterius primo non secans sit.

Atque jam moveatur (Fig 95) ab circa a versus all in codem plano, donce u (prius = R) fiat = o, atque interea in ab moveatur punctum b' semper porro, ita ut b' in moto ab semper in loco dicto ipsi u respondente sit : erit via ipsius b' (per motum hunc compositum) linea dicta. Reliqua autem ultro patent; qui et ea quae reliquorum axlomatum propositorum quovis posito, rem deciderent: nec operae pretium est plura referre; jun ma penetranti oculo, tractetur in Appendice sequente, a quovis fideli veritatis purae alumno digna legi.

Appendix.

APPENDIX.

SCIENTIAM SPATII absolute veram exhibens :

a veritate aut falsitate Axiomatie XI Euclidei (a priori haud unguam decidenda) independentem; adjecta ad casum falsitatie, quadratura circuli geometrica.

Anetore JOHANNE BOLYAL de cademi Geometrarum iu Exercitu Caesarco Regio Austriaco Castrenaium Capitaneo

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BOLYAI: NO. 66.

Published in an obscure appendix to his father's little-read mathematical textbook, Bolyai's new geometry of variably curved space was almost completely ignored by his contemporaries, a discouragement that effectively ended Bolyai's career in creative mathematics. thousand giant Newtonian towers, it will never be light on earth, and the miserable human race will never have something absolutely pure, not even geometry."

The essay was published as the appendix to the first volume of his father's mathematics textbook, only two copies of which are known in the United States.

SEE ILLUSTRATION PAGE 27.

67. [BROWNE, Thomas (1605-1682)] Religio medici. [London] Andrew Crooke, 1642. 8vo, contemporary sheep. First (unauthorized) edition. [*with:*] Religio medici. [London] Andrew Crooke, 1642. Second (unauthorized) edition.

Browne's first book, the most famous work of English literature written by a physician, was never intended for publication; its first two editions (both exhibited here) were printed "most imperfectly and Surreptitiously," from one of the several manuscript copies in circulation. The two are distinguished by their differing number of pages, and by several minor textual corrections in the second edition.

68. [DESCARTES, René (1596-1650)] A discourse of a method for the well guiding of reason... London: Thomas Newcombe, 1649. 8vo, contemporary sheep. First edition in English, probable first issue.

The rare first English translation of Descartes' *Discours de la methode* (1637), a foundation work of modern philosophic and scientific thought, and the source of the famous "I think, therefore I am." This copy has an integral title-leaf, and probably represents the first issue; there are also copies extant with cancel titles showing several variant readings.

69. HALLEY, Edmund (1656-1742). Astronomicae cometicae synopsis. [Oxford: Charlett, 8 June 1705] Folio, unbound. First edition.

The foundation of modern cometary astronomy. By comparing four centuries' worth of cometary observations, Halley found that a single comet had produced the sightings of 1531, 1607 and 1682, thus confirming his hypothesis that cometary orbits are elliptical. The famous comet, which now bears Halley's name, will return in late 1985. This rare printing of Halley's work was commissioned by Arthur Charlett, Master of University College, Oxford, whose name appears in the engraved colophon. The work was translated into English the same year "from the copy printed at Oxford," and published in a longer and varying Latin version in the *Philosophical Transactions* for 1704-1705.

SEE ILLUSTRATION PAGE 29.

70. LOBACHEVSKII, Nicolai Ivanovitch (1793-1856). "O nachalakh geometrii." In: *Kazanskii bestnik, izdavaemyi pri Imperatorskom Kazamskom Universitete*, Parts 25 [1-2], 27 and 28[1-2] (1829-1830). 8vo, original blue wrappers, bound in one half black morocco volume by A. Lobstein. First printing.

The first published work on non-Euclidean geometry. By demonstrating the unprovability of Euclid's parallel postulate, Lobachevskii refuted the unique applicability of Euclidean geometry to the real world, and pointed the way to the Einsteinian concept of variably curved space. Lobachevskii shares the credit for this new geometry with Janos Bolyai, who discovered it independently at about the same time (see No. 66). When this copy was acquired in 1968, it was understood to be the only copy outside the Soviet Union. Since that time, we have not heard of any other copy being offered in the West.

SEE ILLUSTRATION PAGE 30.

and predicted that it would return in 1758. When it did, it was named "Halley's comet" in his honor. Halley determined that the comet last seen in 1682 had an orbit period of approximately 75 years, HALLEY: No. 69.

um ingenium. Hic Tychmir labor, 14, ac feicentian Altronomic labor. nin Cohon ; ac ipfe Sones, neque Praznomena or tempora adferibre diquatas eft, quez politi huis plurinis Concernon Hitlorin, nali com fit, ante annum à fleyfe nato 1337, quo Nitagias mangolianae, nobis Concera Fentiam inter fixas mangolianae, nobis Concera Fentiam inter fixas manferit, can acentat opera pretam orozan femita sahoarae forprifaje r na Conterram al oa tranimiliar a fores arcen Philofophus, perpendis nes, non dubtavit is loca anter corpor a scaffranas, quangum Mosta corpor a scaffranas, quangum Mosta corpor a scaffranas, quangum Mosta corpor y Atacinio non tririo promitir aliqua tref as heigets en disputs (ataci ac Coma terra e collegavet, it au, nop afi aned abiae gusteringerits year some synemens, even even and evertain and even a ibus pro dimet faserat : Emer jue & fidis exp BTERES Agypai & Chalder, fiqua fiches Diadaro Sacale, Longa obfervation ferie tuftrudh, Cometarum Annolas premunitare valuerunt. Cum autem inflere ASTRONOMIÆ COMETICÆ , præfert una : unmo m GEOMETRIÆ PROFESSORE SAVILIANO. fort, Ab hac centrum rem 1577, Tyslane jam ftudio athrorum fer vo dimettendis cerli arcubas motorum fer Autore EDMUNDO HALLEIO SYNOPSIS, i, ad centr wper propo atis conclusit Kepleras non Apud OxoNIENSES and/o indultision energy in *Kypteri* fugacitimum & pene di-bordus fresus Syltema Mandi verum & Phyliciug adm a mmenfum aurit, Montarofe Ellipticus deficiblere, el legy, ut Area erselvis, Gerwidger Ellipticus deficiblere, el legy, ut Area en Sola in Elliptico foco conflutivi, temporibay, aubar in transferia en la Unica in transmission el la u um periodicorum, for Calvier difframisma ella u que your conta en paralano, sanos indica y Comera in Kopferer non uno paralano, sanos indica y Comera functionaria fierri, suou quidano no maltima a trad-more lucat. Ac *Heenins*, *Sylam* zensila, *Koper* reth-Monos reclation interno paralano, conferente que thas on transmission forma non paratos conferente que thas on narrara fubiolati. no aucorum terio necumbente, comparatifque Machim sus majori cum cura & certitudine quam Veteribu confpicuus, cui obfervando fitenue, fele accunxit Tyske inter fixas fatis accurate defer aporem acreum, fed & estam multo fuperiorem ex r ipfos Planetas collocaretur ; fruitra usterim con nerit, vagas & incertas nutrantum tu zeur e; unde factum ut ab illis nihil certi and quibas opinionenti nane cueretta, ad hæc definienda ufni forent. Ac invenio quod haic negotio inferviro regenas Hiltoricus & Altronomus Cana fai temporis Cometarum Pha tare, Sydera effe cum mundo d regi fateatur. Tand Apud hos Tanden ab He 10. Unde O. M. vifum INIS. it vitam tum fidenter ufa, quin redu-ufa Sector anno fcil. 1758. ant exteri. Habe-1532 cu ir, ac me



LOBACHEVSKII: No. 70. Like Bolyai, Lobachevskii suffered from the indifference of his contemporaries. His remarkable achievement went unrecognized until the 1860's, when non-Euclidean geometry was rediscovered and expanded by a new generation of mathematicians. 71. MOXON, Joseph (1627-1700). Mechanick exercises, or the doctrine of handy-works [Vol. 2: . . . Applied to the art of printing]. 2 vols. London: Moxon, 1683. 4to, contemporary calf (Vol. I) and reverse calf, rebacked (Vol. II). First editions.

Volume II of the *Mechanick Exercises* is the earliest manual of the printing trade in any language. It put into writing over 200 years of traditional knowledge, and served as a standard text for the next two centuries. Moxon intended his *Mechanick Exercises* to provide basic instruction in all the chief trades of his day; Volume I was the first book in England to be published in parts.

72. OERSTED, Hans Christian (1777-1851). Experimenta circa effectum conflictus electrici in acum magneticum. [Copenhagen: Schultz, 1828] 4to, later marbled boards. First edition.

This half-sheet of text, privately printed for distribution to the major European scientific journals, contains the first announcement of Oersted's discovery of the electromagnetic effect, which proved the identity of electricity and magnetism. Oersted's discovery opened up a new epoch in the history of physics, leading to the creation of electrodynamics, and the eventual demonstration of the unity of all forms of electricity. Only five copies of this rare work (excluding the Norman copy) are listed in the National Union Catalogue.

73. RUINI, Carlo (ca. 1530-1598). Dell'anotomia et dell'infirmita del cavallo. Bologna: Heirs of Gio. Rossi, 1598. Folio, contemporary vellum. First edition.

The first book devoted exclusively to the structure of an animal other than man, and a foundation of both comparative anatomy and veterinary medicine. The woodcut illustrations, some of which show equine anatomical figures in a landscape setting, are modeled after those in Vesalius' *Fabrica*.

74. SANTORIO, Santorio (1561-1636). Ars Sanctorii Sanctorii . . . de statica medica. . . . Venice: Polo, 1614. 12mo, contemporary limp vellum. First edition.

The foundation of the science of metabolism, and the inauguration of quantitative experimentation in biological science. Santorio developed exact methods of weighing, temperature and humidity determination, and pulse counting to show that the greatest part of bodily excretion takes place invisibly through the skin and lungs. This is probably the only copy of this edition in the United States, as none is listed in the National Union Catalogue.

75. SANTORIO. A new art of physick. London: Peter Cole, 1663. 8vo, half calf antique. First edition in English.

Abdiah Cole's English rendition of *De medicina statica* antedates by thirteen years that of John Davies, traditionally cited as the first English translation. Cole is credited with numerous adaptations of standard medical works, but his translation of Santorio appears to be virtually unknown, for it is not cited in the D.N.B., any of the appropriate bibliographies, or the National Union Catalogue.

76. TAGLIACOZZI, Gaspare (1545-1599). De curtorum chirurgia per insitionem, libri duo. Venice: Gaspare Bindoni, 1597. Folio, dark brown calf antique. First edition, first issue, one of six known large and thick paper copies.

The first book devoted entirely to plastic surgery. Tagliacozzi helped establish the validity of

plastic operations by publishing surgical procedures that had for generations been closely guarded family secrets, and by improving these procedures in the light of the best medical knowledge of his day. The artist of the book's 22 magnificent woodcuts remains inexplicably anonymous, but we have been able to attribute the title engraving to Oliviero Gatti, a pupil of the master engraver Agostino Carraci(see Bartsch, *Le peintre graveur*, XIX, no. 59).

77. TURNER, William (ca. 1500-1568). Avium praecipuarum, quarum apud Plinium et Aristotelem mentio est. . . . Cologne: Gimnich, 1544. 8vo, later boards. First edition.

The first major ornithological work since Pliny's *Natural History*, and the first to contain descriptions of species based upon the author's own observations. Turner was the first scientific student of zoology and botany in England, and was able to observe European species during the periods of Continental exile forced upon him because of his extreme nonconformist religious views. This copy bears the signature of Johann Friedrich Blumenbach, founder of the science of anthropology. The National Union Catalogue lists only two copies of this first edition.

78. VITRUVIUS POLLIO (d. ca. 25 B.C.). [De architectura] [Venice: Giovanni Tacuino, 22 May 1511] Folio, contemporary oak boards, blind-tooled leather spine, brass clasps. First illustrated edition.

The first illustrated edition of the only surviving classical treatise on architecture. The woodcut title-border, with its floreated dolphin design, is probably the earliest example of one of the most influential and widely copied pieces of 16th-century graphic ornamentation. The woodcut initials in this copy have been sumptuously illuminated, and the first leaf of text is further embellished with pen-and-ink designs and a family crest.

79. VOLTAIRE, François Marie Arouet de (1694-1778). Elémens de la philosophie de Neuton. Amsterdam: Desbordes, 1738. 8vo (large and thick paper copy), later 18th or early 19th-century red morocco gilt, by Derome le jeune or his successor. First edition.

Voltaire's layman's interpretation of Newtonian science did much to spread Newton's ideas throughout Europe. This copy is a rare example of the large and thick paper issue, which is particularly scarce in contemporary morocco. The Esmerian catalogue (Part III, No. 102) lists a copy of this work in a binding very similar to this one, with the binder's ticket of Derome le jeune.

BINDINGS

80. [ALUMINUM BINDING] Faraday, Michael (1791-1867). Experimental researches in chemistry and physics. London: Taylor and Francis, 1859. 8vo, later crushed maroon morocco tooled in gilt and aluminum. First edition.

This work includes Faraday's account of the production of the first known compounds of chlorine and carbon, and his paper on ray vibrations containing an embryonic form of the electromagnetic theory of light. Faraday presented this copy to John Leighton, illustrator, author and designer of publisher's bindings; Leighton apparently had it rebound in the present binding, which marks (according to the inscription on his laid-in carte-de-visite) the first application of aluminum to book decoration. 81. [CORBERAN, Guillaume?] Ramelli, Agostino (1531?-1590). Le diverse et artificiose machine. Paris: in casa del'autore, 1588. Folio, contemporary red morocco gilt, with the cipher of Nicolas-Claude Fabri de Peiresc, probably by Guillaume Corberan, Peiresc's in-house binder. First edition.

The finest Renaissance work on engineering. Ramelli's 195 copperplates, depicting military, hydraulic and industrial machinery, are among the best examples of technological illustration. The book's magnificent typography served as insurance against piracy, as it made counterfeit editions prohibitively expensive to produce. This copy's binding shows the distinctive cipher of Nicolas-Claude Fabri de Peiresc, the 17th-century French bibliophile and patron of science, who assembled one of the greatest scientific libraries of his age. Peiresc kept two bookbinders in his house, of whom Corberan was the more skilled.

82. [CUZIN atelier] [Valverde de Hamusco, Juan (fl. 1560)] Vivae imagines partium corporis humani aereis formis expressae. Antwerp: Christopher Plantin, 1566. 4to, bound by [Adolphe?] Cuzin in full brown morocco gilt, inlaid with a Grolieresque design of black, turquoise, gray and cream inlays, richly tooled white vellum doublures, gilt and gauffred edges. First Plantin edition.

Plantin's plagiarization of Valverde's *Historia de la composicion del cuerpo humano* (1556), the most successful imitation of Vesalius' *Fabrica* and one of the most widely studied anatomical works of the Renaissance. This copy's magnificent Grolieresque binding, signed "Cuzin," is possibly the work of Adolphe Cuzin, who took over his father's atelier upon the elder Cuzin's death in 1890. The Robert Hoe-Eduard Rahir copy.

83. [MOWERY, John Franklin] [Koch, Rudolf (1876-1934) and Kredel, Fritz (1900-)] Das Blumenbuch. [Leipzig: Insel Verlag, 1928-1929] 3 parts in 1 volume. 4to, calf vellum covers and green oasis spine, the covers made of laminates of 2 layers of museum board, wool felt, green paper and vellum with botanical motif in green, by J. Franklin Mowery. First edition, limited to 1,000 copies.

An outstanding 20th-century contribution to botanical and xylographic art, containing 250 hand-colored woodcuts of flowers. J. Franklin Mowery's beautiful and unusual designer binding was displayed in the Metropolitan Museum's 1982 exhibition of his bindings (see John Franklin Mowery. Bookbindings. An exhibition in the Watson Library of the Metropolitan Museum of Art [1982]).

84. ["VENETIAN APPLE BINDER"] Tartaglia, Niccolo (1499/ 1500-1557). Quesiti, et inventioni diverse. [Venice: Venturino Ruffinelli, 1546] 4to (thick paper copy), contemporary dark brown morocco elaborately decorated in gilt and blind, and with a hand-painted shield quartered in red and blue in the center of each cover, in the style of the "Venetian Apple Binder." First edition.

Tartaglia's most important mathematical accomplishment was his independent discovery of the rule for solving cubic equations, which received its first authorized publication in this work, having previously been printed without Tartaglia's permission in Girolamo Cardano's Ars magna (1545). This copy's binding displays the distinctive apple tool of the "Venetian Apple

Binder," which flanks the shields on both covers (see Foot, *Henry Davis Gift*, I, No. 24). From the library of Robert Honeyman IV, with his leather book label.

84A. [WILCOX, Michael] Vesalius, Andreas (1514-1564. Icones anatomicæ. New York & Munich [Bremer Presse for the New York Academy of Medicine and the University of Munich], 1934 [i.e., 1935]. Large folio, bound by Michael Wilcox in full scarlet oasis morocco, with a large-scale, semi-abstract, continuous anatomical design, inspired by the Vesalian woodblocks, tooled in gilt on front and rear covers and enhanced with onlays of blue, green and rose morocco. Preserved in a specially made velvet-lined drop-back box with giltlettered leather label. No. 420 of 615 copies.

The finest scientific work by a modern private press, reprinting the 227 original woodblocks of the *Fabrica* together with the title woodblock for the 1555 edition. All of the original woodblocks were destroyed during the bombing of Munich in 1943. Of this copy's binding, commissioned for this exhibition, Michael Wilcox states: "Vesalius said that the illustrations for his book could not be too big. The larger than life figure which spreads across the two covers is taken from a portion of one of the illustrations in the book. The vertical, horizontal and diagonal "fill-in" pattern is another enlargement, this time arranged from the diagrams which Vesalius used to explain his observations (false) on the fibre directions of the blood vessels. The four-way fibre system is shown complete over another area of dispute between Vesalius and his contemporaries—the last bone of the sacrum. Although a modern and scientific man, Vesalius wanted his work to be ornamental, and so the coloured onlays and the fibre patterns in this design are attempts at suggesting both ornament and complicated structure in a modern way.... I was attracted to the use of the blood vessel structures because later in life Vesalius himself had to admit, with a smile, that his observations had been wrong, and this, for me, is what helps to make him human."

For bindings listed under different headings, see Nos. 2A, 17, 31, 85 and 113.

AMERICAN MEDICINE AND SCIENCE

IN CHRONOLOGICAL ORDER

85. CULPEPER, Nicholas (1616-1654). Pharmacopoeia Londinensis; or, the London dispensatory. . . Boston: John Allen for Nicholas Boone [etc.], 1720. 8vo, contemporary American blind-tooled sheep. First American edition.

The first herbal, the first pharmacopoeia, and the first full-length medical book published in the American colonies. The book enjoyed a wide popularity in the colonies, perhaps because of its Puritan slant and its bias toward the household treatment of illness. The well-preserved binding on this copy is very similar to the William Davies binding illustrated on p. 43 of *Bookbinding in America*, the catalogue of the Frederick E. Maser collection at Bryn Mawr College.

86. [MATHER, Cotton (1663-1728)] An account of the method and success of inoculating the small-pox. . . . London: J. Peele, 1721. 8vo, half morocco antique. First edition.

The history of immunology on a meaningful scale began in Boston in 1721, when Cotton Mather, the famous Puritan activist, introduced the oriental folk practice of smallpox inoculation to the New World. His anonymous pamphlet reports the success of the new

procedure—2% mortality rate as opposed to 15% where the disease occured naturally—and describes the tremendous controversy surrounding its introduction.

87. [MATHER] A vindication of the ministers of Boston. . . . Boston: B. Greene for Samuel Gerrish, 1722. 8vo, stitched. First edition.

This anonymous pamphlet, defending the ministers of Boston for their support of smallpox inoculation, is recognized to be at least partly the work of Cotton Mather, whose activities receive the principal amount of attention. The ministers of Boston were being attacked in an anti-inoculation press campaign organized by James Franklin and his young brother Benjamin, publishers of the *New England Courant*. See No. 93.

88. DOUGLASS, William (1691?-1752). The practical history of a new epidemical eruptive miliary fever.... Boston: Thomas Fleet, 1736. 8vo, modern three-quarter morocco. First edition.

The first adequate clinical description of scarlet fever is contained in Douglass' account of New England's first scarlet fever epidemic. Douglass, one of the earliest American physicians to hold an M.D., was Cotton Mather's most formidable opponent in the smallpox inoculation controversy. See Nos. 86-87.

89. [FRANKLIN, Benjamin (1706-1790), *printer*] Cicero, Marcus Tullius (106-43 B.C.). Cato major, or his discouse of old-age. . . . Philadelphia: B. Franklin, 1744. 8vo, contemporary gilt-ruled calf, rebacked. First edition, first state.

The first translation of a classical work produced in America, and the finest book issued from Franklin's Philadelphia press, printed on imported English paper in "a large and fair Character" so as not to strain aging eyes. The work was translated by James Logan, one of America's first scientific bibliophiles.

90. [FRANKLIN, *printer*] [Cadwalader, Thomas (1708-1779)] An essay on the West-India dry-gripes. . . to which is added, an extraordinary case in physick. Philadelphia: B. Franklin, 1745. 4to, bound with another work in contemporary quarter sheep. First edition, second state.

The first significant medical book by an American physician, giving an excellent account of lead poisoning, a common ailment in eighteenth-century America due to the custom of drinking punch made with Jamaican rum, which was distilled in lead pipes. The "extraordinary case" refers to one of osteomalacia (softening of the bones); Cadwalader's autopsy of the victim's body is one of the earliest recorded in the United States. Only one copy is known of the first state, which has a different preface.

91. FRANKLIN. Experiments and observations on electricity. . . [Part I]. London: E. Cave, 1751. Part 1 of 3 parts. 4to (uncut), stitched. First edition.

The most important American scientific contribution of the 18th century. Franklin's experiments with the Leyden jar led to his development of the "single fluid" (positive and negative) theory of electric charge, which was almost universally adopted by his contemporaries, and is still used today.

92. [FRANKLIN] Some account of the Pennsylvania Hospital. . .

Philadelphia: Franklin and Hall, 1754. [Bound with:] Rhodes, Samuel et al. Continuation of the account of the Pennsylvania Hospital. . . . Philadelphia: Franklin and Hall, 1761. 2 works in 1. 4to, contemporary boards. First editions.

Franklin, a founder and officer of America's first permanent hospital, wrote and printed this brief history of its activities as part of an attempt to raise funds. The sequel to Franklin's *Account*, patterned after his original, was written by a committee chaired by Samuel Rhoads. Included with this copy are *An Account of the Rise*, *Progress & Present State*, of the *Pennsylvania Hospital* (Philadelphia, 1801), attributed to hospital manager Samuel Coates; and an admissions form dated 29 October 1800, signed by Coates and Thomas Hall.

93. [FRANKLIN] Some account of the success of inoculation for the smallpox in England and America. Together with plain instructions, by which any person may be enabled to perform the operation. . . . London: W. Strahan, 1759. 4to, disbound. First edition.

Franklin's statistical account of smallpox inoculation in Boston during the epidemic of 1753-1754, showing the beneficial effects of the practice, was written for the London physician William Heberden, who contributed the "Plain instructions. . ." of the title. Early in his life, Franklin had been actively opposed to smallpox inoculation (see No. 87), but he became one of its strongest advocates after the tragic death of his young son from smallpox in 1736.

94. FRANKLIN. Philosophical and miscellaneous papers. London: Dilly, 1787. 8vo, contemporary boards, rebacked. First edition.

This collection of miscellaneous pieces, written in 1784 and 1785, was presented by Franklin to a nephew or niece. His presentation inscription, signed "B.F.," appears on the advertisement leaf.

95. [SHIPPEN, William, jr. (1736-1808)] Pott, Percival (1714-1788). A treatise on ruptures. London: Hitch & Hawes, 1756. 8vo, contemporary calf, rebacked retaining original spine. First edition.

Pott's *Treatise on Ruptures*, advocating surgical intervention, marked a great advance in the treatment of hernia. This copy is from the library of William Shippen, Jr., co-founder along with John Morgan of the Medical College of Philadelphia (see No. 98), pioneer American teacher of obstetrics, and one of the most famous American physicians of the Revolutionary War period. It is probable that Shippen acquired the book while studying medicine in England, although Pott's works were quite popular in America as well.

96. SHIPPEN. Dissertatio anatomico-medica, de placentae cum utero nexu. ... Edinburgh: Hamilton, Balfour & Neill, 1761. 8vo, morocco antique by C. A. Carpenter, Jr. First edition.

Shippen's doctoral thesis, his only published work, is one of the great rarities of American obstetrics. Shippen founded obstetrical teaching in the United States, delivering his first series of obstetrical lectures at the Pennsylvania State House in 1762. See No. 95.

97. MORGAN, John (1735-1789). Pyopoiesis [in Greek], sive tentamen medicum de puris confectione. . . . Edinburgh: Edinburgh University Press, 1763. 8vo, contemporary calf gilt. First edition.

In how Rich. Peters from his need humble President The allege of Philas aling maryan P *************** DE PURIS CONFECTIONE. ÷******************************* PUOPOIESI, TENTAMEN MEDICUM INAUGURALE SIVE DE

Morgan: No. 97.

The doctoral thesis of the founder of the first American medical school. Morgan advanced the view that pus was a secretion formed by blood-vessels under conditions of inflammation; this was recognized as a valuable contribution. Morgan presented this copy to the president of the College of Philadelphia (now the University of Pennsylvania); the gift may have been instrumental in persuading the trustees to approve Morgan's plan of establishing a medical department within the College.

SEE ILLUSTRATION PAGE 37.

98. MORGAN. A discourse upon the institution of medical schools in America.... Philadelphia: William Bradford, 1765. 8vo, modern three-quarter morocco. First edition.

The first American publication on medical education. Morgan founded the first medical school in the United States, in connection with what is now the University of Pennyslvania. Besides being an important work in the history of American medicine, Morgan's *Discourse* is also an imprint from the press of William Bradford, the pioneer colonial printer.

99. JONES, John (1729-1791). Plain concise practical remarks on the treatment of wounds and fractures. . . principally designed for the use of young military surgeons, in North-America. New York: Holt, 1775. 8vo, contemporary marbled boards, rebacked. First edition.

The first American work on military medicine, the first surgical work by an American printed in North America, and one of the very few native medical works produced during the American colonial period. Jones' treatise was the *vade mecum* of American military surgeons during the Revolutionary War. This copy is from the library of Dr. Samuel Smith Purple, one of the first collectors of early American medical imprints.

100. [BOWDITCH, Nathaniel (1773-1838)] Moore, John Hamilton (1738-1807). The new practical navigator. . . . Newburyport [Mass.]: Edmund Blunt, 1799. 8vo, contemporary tree sheep, rebacked retaining original spine. First American edition.

First published in London in 1772, Moore's popular navigation manual was pirated by Edmund Blunt for this first American edition, which soon gained ascendancy over its English predecessor. This edition was partially revised by Nathaniel Bowditch, who used it as the basis of his celebrated *New American Practical Navigator*, published three years later (see NO. 101).

101. BOWDITCH. The new American practical navigator. Newburyport, Mass.: Blunt, 1802. 8vo, contemporary tree sheep. First edition.

A fundamental work in the history of navigation, indispensable to the maritime and commercial expansion of the 19th century. Bowditch had contributed anonymously to the first two American editions of Moore's *New Practical Navigator*, but made so many corrections to the third edition that it was decided to give the work a new title, and to acknowledge Bowditch as its author. The work continues to be revised and updated by the U.S. Hydrographic Office, which acquired the copyright from Edmund Blunt's descendants in 1866; the last edition was published in 1977.

102. BEAUMON'T, William (1785-1853). Experiments and observations on the gastric juice. . . . Plattsburgh: F.P. Allen, 1833. 8vo, original presentation binding of full sheep, gilt-ruled spine. First edition.

Grasping the opportunity offered him by a young French Canadian soldier's gastric fistula (obtained via gunshot wound), Beaumont became the first to make an accurate scientific study of the physiology of gastric digestion. This copy, one of 50 specially bound in full sheep for presentation, bears the author's inscription on the title to "William Dunlap," probably the Canadian physician William Dunlop (1792-1848). It also shows the later signature of Dr. S[amuel] S[mith] Purple. Laid in is an autograph letter, dated Jan. 13, 1834, from Beaumont to "Professor Jones"—perhaps the Dr. Jones "of Columbian College" acknowledged in Beaumont's introduction.

103. [HOLMES, Oliver Wendell (1809-1894)] Stokes, William (1804-1878). An introduction to the use of the stethoscope.... Edinburgh: MacLachlan and Stewart [etc.], 1825. 8vo, original boards (rebacked). First edition.

As the first systematic English treatise on the stethoscope to follow the work of Laennec (see No. 46), Stokes' *Introduction* gave a significant impetus to the acceptance of the stethoscope as a diagnostic tool. This copy is from the library of Oliver Wendell Holmes, the American physician and poet (see Nos. 104-105), and has his pencil signature on the front free endpaper.

104. HOLMES. "The contagiousness of puerperal fever." Offprint from: *The New England quarterly journal of medicine and surgery*, I. [Boston, 1843]. 8vo, original buff wrappers. First separate printing.

Holmes was the first to establish the contagiousness of puerperal fever, and to prove that the infection was transmitted by birth attendants—an achievement that ranks with the discovery of anesthesia as one of the most important 19th-century American contributions to medicine. Holmes' work at first outraged the medical community, but by 1860 he was able to write that "the sneers of those whose position I had assailed ... I ... have at last demolished, so that nothing but the ghosts of dead women stir among the ruins" (*Professor at the Breakfast-Table*). This rare offprint from the short-lived *New England Quarterly Journal of Medicine and Surgery* is one of "the few copies [Holmes] had struck off separately" for presentation to his friends.

105. HOLMES. Puerperal fever, as a private pestilence. Boston: Ticknor & Fields, 1855. 12mo, original black cloth. Second printing; first edition in book form.

Realizing that the original printing of "The Contagiousness of Puerperal Fever" had never been adequately circulated among physicians, and was thus considerably less well-known than the views of his outspoken opponents, Holmes reprinted the essay with a new introduction and list of "Additional References and Cases." This copy, in the rare cloth binding, has Holmes' presentation inscription to the Astor Library on the front free endpaper. Also exhibited is a copy in the standard publisher's binding of printed wrappers.

106. BIGELOW, Henry Jacob (1818-1890). "Insensibility during surgical operations produced by inhalation." In: *Boston medical and surgical journal*, XXXV, 16, pp. 309-317. [Boston, 1846] 12mo, original self-wrappers. First printing.

The first published announcement of the discovery of surgical anesthesia, reporting W.T.G. Morton's successful public demonstrations of the efficacy of sulphuric ether in deadening the pain of surgical operations. This was the greatest medical discovery made in America during the nineteenth century.

107. GIBBS, Josiah Willard (1839-1903). "On the equilibrium of heterogeneous substances." First [second] part. Offprints from: *Transactions of the Connecticut Academy of Arts and Sciences*, III, parts 1-2. [New Haven] 1876-1878. 8vo, original gray printed wrappers. First separate printings.

The extremely rare offprint version of the *Principia* of chemical thermodynamics, which introduced the phase rule for finding the equilibrium of complex chemical compounds, and for determining in advance the exact conditions necessary for producing stable chemical mixtures. Gibbs' discovery has been fundamental to the development of modern industrial technology. The front wrapper of Part 1 bears Gibbs' presentation inscription.

108. WRIGHT, Wilbur (1867-1912). "Some aeronautical experiments." Offprint from: *Journal of the Western society of engineers*, VI, no. 6. [Chicago, 1901]. 8vo, original gray wrappers. First separate printing.

The Wright brothers' first publication on aeronautics, giving a detailed record of their earliest experiments with motorless gliders. It was during this time that the Wrights mastered the art of flight control, inventing the vertical rear rudder—now an essential part of any aircraft—to eliminate wing warp drag.

109. WRIGHT. "Experiments and observations in soaring flight." Offprint from: *Journal of the Western society of engineers*, VIII [misprinted "III" on the front wrapper], no. 4. [Chicago, 1903] 8vo, original blue-gray wrappers. First separate printing.

The first account of the Wright brothers' experiments with motorized gliders. The brothers made their first powered flight on December 17, 1903, six months after Wilbur read this report before the Western Society of Engineers. This copy displays the presentation stamp of aeronautical engineer Octave Chanute, whose famous biplane provided the model for the Wrights' first glider; "the Wrights never failed to acknowledge the help they received from Chanute, and considered him one of the greatest pioneers in the engineering problems of flight" (D.A.B.).

110. CUSHING, Harvey (1869-1939). The pituitary body and its disorders. Philadelphia & London: Lippincott [1912]. 8vo, original red cloth. First edition, first issue.

The first clinical monograph on the pituitary gland, and a landmark of modern endocrinology. This is a particularly significant association copy, with a long and telling inscription from Cushing to his former student Herbert M. Evans, whose research team, in 1945, succeeded in isolating and purifying the pituitary growth hormone whose existence Cushing had deduced over 30 years earlier.

111. EVANS, Herbert McLean (1882-1971), and Burr, George Oswald (1896-). The antisterility vitamine fat soluble E. Berkeley: University of California Press, 1927. 4to, original blue cloth. First edition.

The first lengthy report of Evans' researches on vitamin E, whose antisterility properties Evans and his associates had discovered in 1922. Evans' inscription in this copy reads: "To my friend/Haskell F. Norman/who knows that books/record the life of man."

112. EVANS. Exhibition of first editions of epochal achievements in the

nistory of science. Berkeley: University of California Press, 1934. 12mo, original light brown wrappers. First edition.

A pioneering exhibition of rare books in the history of science. Evans' florid presentation inscription, quoted in this catalogue's introduction, is tipped to the inner front wrapper.

PSYCHIATRY

IN CHRONOLOGICAL ORDER

113. WEYER, Johann (1515-1588). De praestigiis daemonum. . . . Basel: Officina Oporiniana, 1577. 4to, contemporary tan morocco, with the gilt arms of Jacques-Auguste de Thou and his first wife Marie Barbançon, and the monogram "IAM" repeated 5 times on the spine. Fifth edition.

Weyer's work, first published in 1563, is one of the most famous exposés of the witchcraft delusion, and the first major European work to take an empirical, scientific approach to the study of mental illness. This copy of the fifth edition was bound for Jacques-Auguste de Thou, the celebrated 16th-century bibliophile; it displays the arms and monogram that de Thou employed after his first marriage.

114. MESMER, Franz Anton (1734-1815). Mémoire sur la découverte du magnetisme animal. Geneva & Paris: Didot le jeune, 1779. 8vo, contemporary mottled sheep. First edition.

Mesmer's famous manifesto of the principles and uses of animal magnetism. As much a social movement as a medical practice, Mesmer's doctrines attracted an enormous contemporary following, and inspired the century of scientific inquiries into psychological phenomena that culminated in Freud's development of psychoanalysis. This copy is from the library of the Society of Universal Harmony, formed by Mesmer and his associates to initiate disciples into "Mesmerism."

115. MESMER. A.L.s. to the Minister of Arts and Sciences of the Swiss Republic. Paris, 9 germinal, 7^e [30 March, 1799]. 4to, 4 pages.

"My most burning desire is to pay homage to the Swiss Republic and to make it enjoy as promptly as possible the advantages of my method of curing. . . ." Mesmer defended the scientific validity of his doctrines, predicting that people would soon be forced to recognize "their useful application for the perfection of the human species," and asked to be granted a hospital teaching post, where he would instruct physicians and surgeons in the principles of mesmerism and "develop the methods of treating every kind of internal and external illness, of preventing and of curing congenital illnesses." Mesmer's letter accompanied the gift of one of his writings—perhaps a copy of the *Mémoire*.

116. CHIARUGI, Vincenzo (1759-1820). Della pazzia in genere, e in specie. Florence: Carlieri, 1793-1794. 3 vols. in 2. 8vo, contemporary limp boards. First edition.

Chiarugi, director of the Bonifazio Hospital, was the first in Europe to abandon the use of chains and fetters in the treatment of the mentally ill. His treatise contains the first illustration of the straitjacket, developed in England as an alternative form of restraint. The work is very rare: aside from this one, we have been able to locate only three copies in America. 117. TUKE, Samuel (1784-1857). Description of The Retreat, an institution near York, for insane persons of the Society of Friends.... York: W. Alexander [etc.], 1813. 4to (large paper copy), original boards. First edition.

A pioneer work in the history of the treatment of the insane, providing the first detailed report of the methods and results of a mild, humane system as practiced at an institution established expressly to carry out such treatment. Tuke's account of "The Retreat," written as a guide to similar undertakings, attracted the notice of humanitarians everywhere and inspired widespread reforms. This copy displays on its front cover a partially effaced presentation inscription to J. E. D. Esquirol, the great 19th-century French psychiatrist. See No. 22.

118. BRAID, James (1795?-1860). Satanic agency and mesmerism reviewed. . . . Manchester & Liverpool: Simms & Dinham [etc.], 1842. 12mo, modern marbled boards. First edition.

Braid's scientific investigations of mesmerism convinced him that its effects did not depend on an outside force, but were natural phenomena arising from the subject's heightened suggestibility. This rare pamphlet, written in response to a sermon against mesmerism, contains his first statement of these discoveries, which laid the foundation of medical hypnotism. The work contains the first use of the term "[neuro]hypnotism," which Braid coined to replace the unscientific "mesmerism" and "animal magnetism." This copy has two manuscript corrections in what is very likely Braid's hand; it is exhibited with the first American printing of the sermon that inspired it. One other copy is known in the United States.

SEE ILLUSTRATION PAGE 43.

119. BRAID. Neuryphology; or, the rationale of nervous sleep, considered in relation with animal magnetism. London & Edinburgh: Churchill; Black, 1843. 8vo, original black cloth. First edition.

The first full-length scientific treatise on medical hypnotism. Braid's presentation inscription to British novelist W. Harrison Ainsworth appears on the half-title of this copy.

120. LIEBEAULT, Ambroise Auguste (1823-1904). Du sommeil et des états analogues considérés surtout au point de vue de l'action du moral sur le physique. Paris & Nancy: Masson; Grosjean, 1866. 8vo, original buff wrappers. First edition.

The use of hypnotic suggestion as psychotherapy may have begun with the work of Liébault, whose *Le sommeil* represents two years of clinical study of the therapeutic uses of hypnotism. The work, which is now quite rare, was virtually ignored by his contemporaries: J. Milne Bramwell, an early historian of hypnotism who observed Liébeault at work, states on p. 30 of his *Hypnotism* (1906) that "one copy alone was sold." Liébeault's presentation inscription to a colleague appears on the half-title.

121. FREUD, Sigmund (1856-1939) and Breuer, Josef (1842-1925). Studien über Hysterie. 8vo, contemporary marbled boards. Leipzig & Vienna: Deuticke, 1895. First edition.

The starting point of psychoanalysis. Freud's free-association method, which provided the first instrument for the scientific examination of the human conscious and unconscious mind, was based upon his and Breuer's years of experience in treating hysterical patients; the success of the method is reported here in the famous case histories of Anna O. and Elizabeth von R. This copy

displays the signature of Breuer's wife Mathilde on the title, but interestingly enough shows no presentation inscription from her husband; see the introduction to this catalogue.

122. FREUD. Die Traumdeutung. Leipzig & Vienna: Deuticke, 1900. 8vo, original gray wrappers. First edition.

Freud's greatest single work contains a complete statement of his general theory of the psyche, which opened the door to the irrational that had been closed to Western psychology since the time of Locke. 600 copies were printed of the first edition, which took nine years to sell; its modest reception belied the extraordinary impact Freud's theories would come to have on the culture of the 20th century.

123. FREUD. Drei Abhandlungen zur Sexualtheorie. Leipzig & Vienna: Deuticke, 1905. 8vo, original gray wrappers. First edition.

Second in importance only to his *Interpretation of Dreams*, Freud's *Three Essays on the Theory* of *Sexuality* sets forth his theory of infantile sexuality and human psychosexual development, marking a momentous and still controversial step forward in the understanding of human psychology. Freud presented this copy to archaeologist Emmanuel Löwy, a friend from his student days.

For a psychiatric work listed under another heading, see No. 22.



BRAID: NO. 118.

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