

**CATALOGUE 43**  
*John & Charles Bell, François Magendie  
and the Bell-Magendie Law*  
**Anatomy, Surgery, Neurology, Physiology &  
Anatomical Illustration in the Early 19th Century**



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Image from the National Portrait Gallery, London

### *John Bell (1763-1820)*

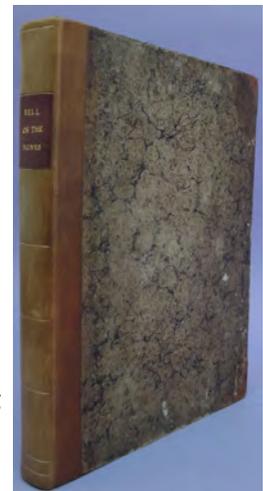
John Bell, the elder brother of Charles Bell, was an eminent Scottish surgeon and anatomist. He initially studied anatomy at Edinburgh under Alexander Monro *secundus*, but after realizing that Monro's teachings did not address the anatomical problems encountered by surgeons Bell decided in 1790 to found his own anatomy school, where he emphasized the importance of anatomy to surgical practice. He is thus regarded as the founder of surgical anatomy. He was also one of the founders of vascular surgery, famous for having been the first to ligate the gluteal artery (see below under his *Principles of Surgery*), and for tying the common carotid and internal iliac. A compassionate man, Bell did not hesitate to speak out against the unnecessary pain and suffering inflicted by incompetent surgeons in Scotland. This gained him many enemies and may have contributed to the unfortunate controversy with James Gregory, professor of medicine at Edinburgh, which led to Bell being barred from the Royal Hospital of Edinburgh in 1800. Bell gave up teaching at this point but continued to practice surgery; over the next twenty years he became recognized as the leading surgical operator and consultant in Scotland. Encouraged by an artistic mother, John Bell received early training in drawing. Like his brother Charles, John Bell was a talented artist and one of the few medical men to illustrate his own works.

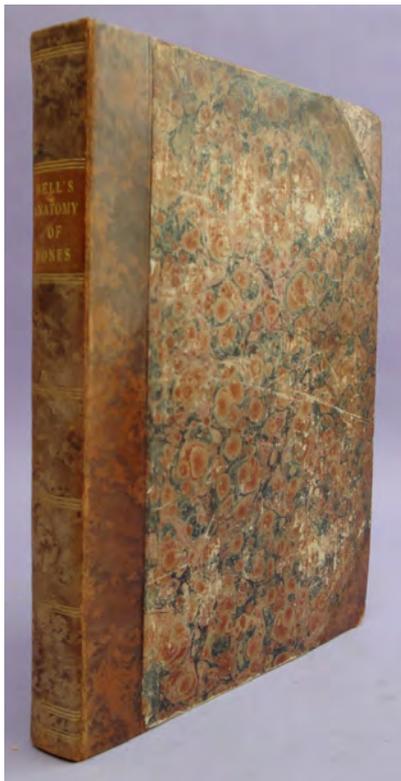
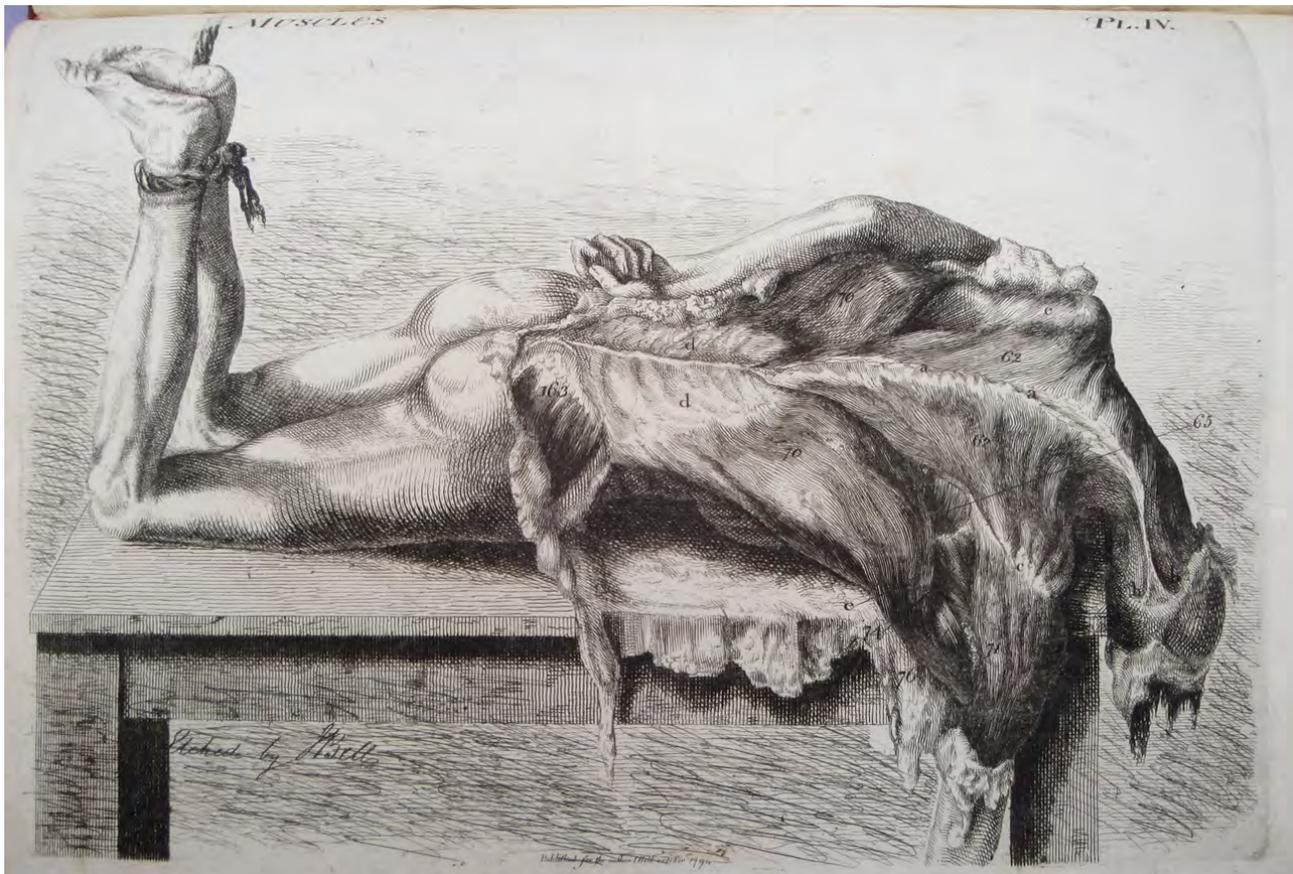


### *Macabre but Admirable, and Very Rare*

**I.** Engravings, explaining the anatomy of the bones, muscles, and joints. 4to. [6], xxii, [2], 191, [1]pp. With additional pages 38\* and 109\*. Engraved title and 32 plates (4 outline) drawn & mostly engraved or etched by Bell; tissue guards present; text engravings. Edinburgh: John Paterson for Bell & Bradfute. . . , 1794. 271 x 209 mm. 19<sup>th</sup> century marbled boards, rebacked and recorned in calf. Occasional foxing, edges of a few plates frayed. Errata corrected in ink in a 19th cent. hand. Very good copy. 19<sup>th</sup> century ownership signature of F. Farquharson, Edinburgh on front endpaper and title. \$4500

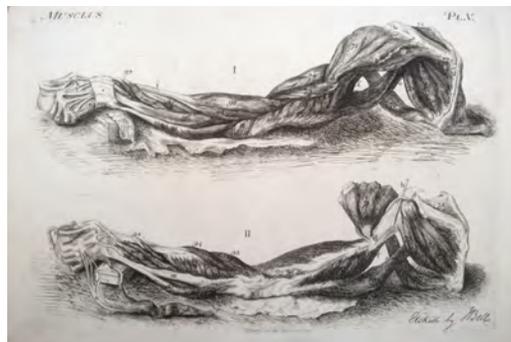
**First Edition**, earlier state, with p. 109\*. “Magnificently realistic” (Russell 60) and “one of the milestones in the history of anatomic delineation” (Garrison, *History of Medicine*, p. 478). John Bell’s atlas of the bones, muscles and joints was issued as a separate work (so stated by Bell, see Russell 59) a year after his text *The Anatomy of the Bones, Muscles, and Joints*. Bell’s illustrations are some of the most striking in the entire literature. “Certainly they have the immediacy of drawings made in the dissecting rooms of late Georgian Edinburgh. Some are quite gruesome and even perverted . . . In their context, however, they are admirable, for they were intended to be used to supplement the teacher’s demonstrations, to remind the student of what he had seen, and to be a guide when the student sat down with the prosected material. It was under the Bells . . . that the extramural schools brought the aspiring surgeon much closer to the cadaver, allowing the student opportunities for actual dissection” (Roberts & Tomlinson, *The Fabric of the Body* (1992) 491, also plate 104). 42446

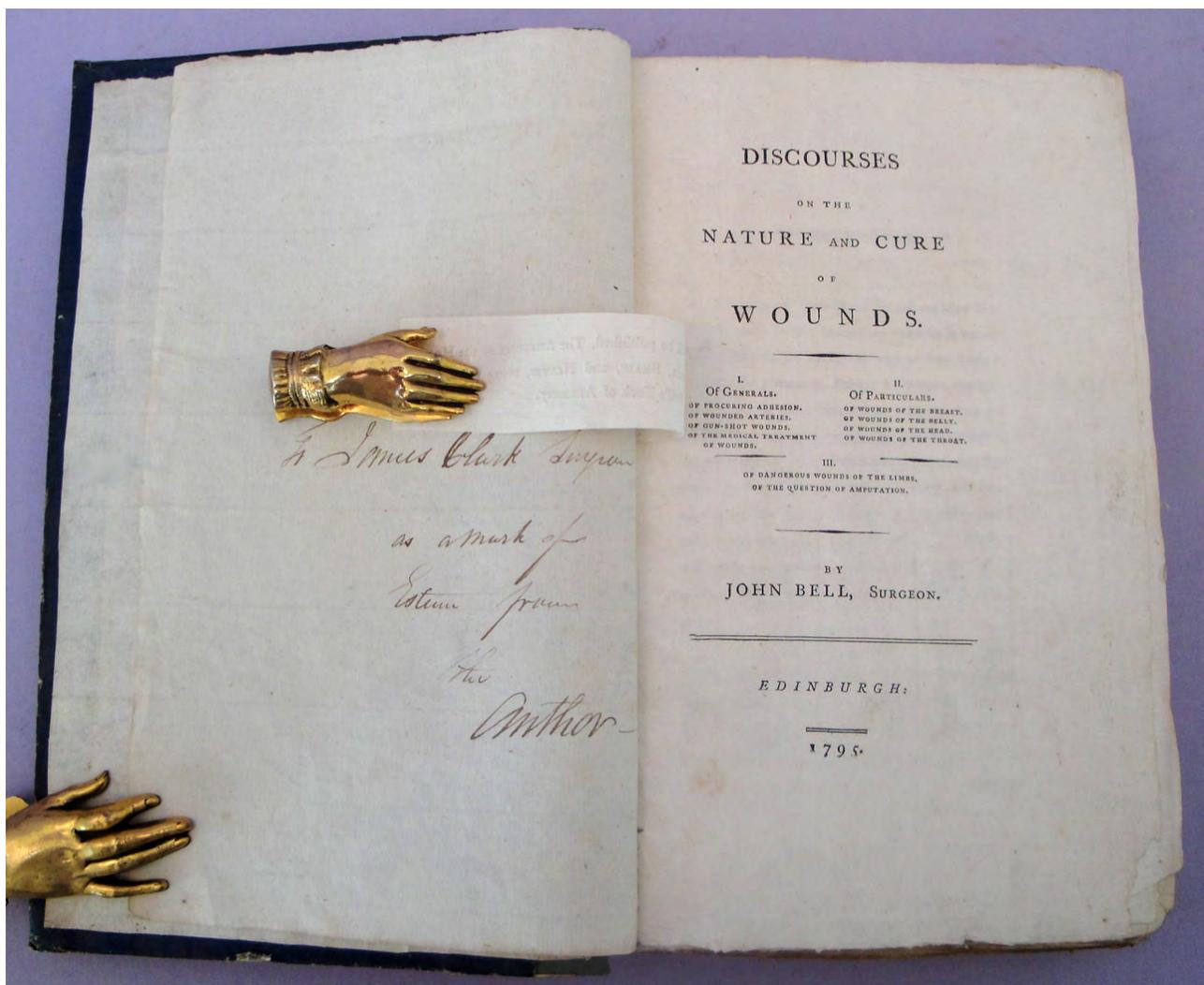




2. Engravings, explaining the anatomy of the bones, muscles, and joints. 4to. [4], xxii, [2], 191, [1]pp. **Lacking printed title** as often. With additional pages 38\* and 109\*. Engraved title and 32 plates (4 outline) drawn & mostly engraved or etched by Bell; text engravings. Edinburgh: John Paterson for Bell & Bradfute. . . , 1794. 262 x 206 mm. Half mottled sheep, marbled boards ca. 1794, light rubbing, spine faded. Some dampstaining and foxing, library stamp on engraved title, front endpaper and flyleaf, but a good to very good copy. Bookplate. \$3000

**First Edition**, earlier state, with p. 109\*. 42567

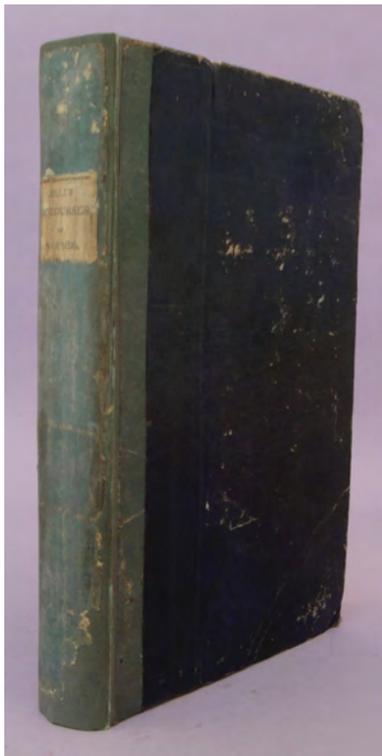
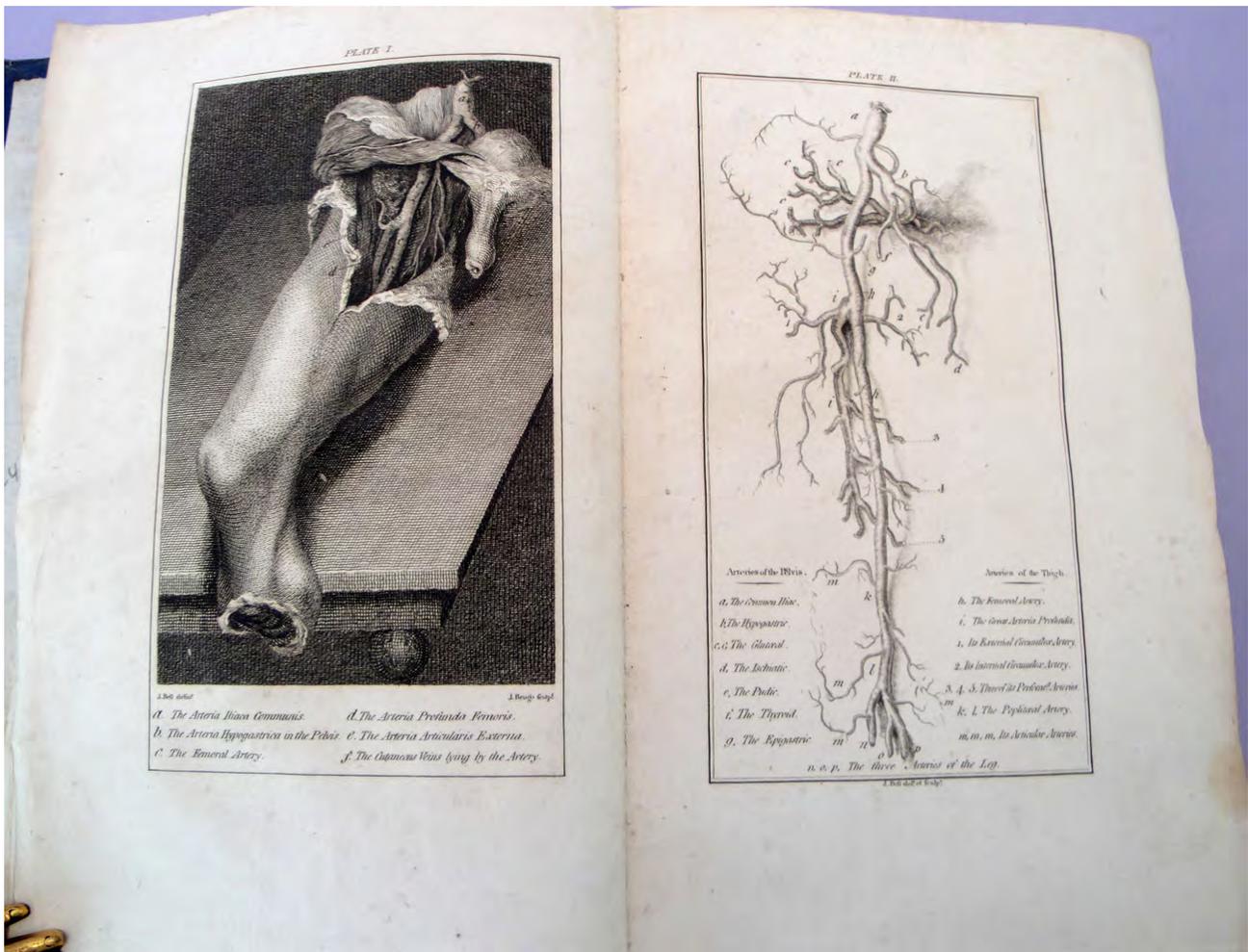




*Rare Author's Issue, Inscribed*

3. Discourses on the nature and cure of wounds. 8vo. Adverts. slip, vi, [2], 241, [3], 169, [3], 67, [3]pp. 2 plates & 1 text illustration, drawn & mostly engraved by Bell. Edinburgh: n. p., 1795. 254 x 165 mm. Original boards, uncut, rubbed, rebacked preserving most of original backstrip & printed label. Slight soiling, p. 169 in second section bound upside-down, but fine. \$4500

**First Edition, Author's Issue, Inscribed by Bell on endpaper:** "James Clark, Surgeon, as a mark of Esteem from the Author." This is the only copy of this issue we have handled in our four-plus decades in the trade, and the only book inscribed by John Bell that we ever handled. It may be that, as was common enough at the time, Bell paid for the publication of his book, but arranged to have most copies distributed by a publisher, with a few copies reserved for private distribution, of which the above presentation would be one. The author's issue does not have the publisher's name on the title and its date of publication is given in arabic numerals rather than roman. There is no half-title, but rather a part-title for pt. I and an advertisement slip for the second volume of Bell's anatomy. In the regular issue there is a half-title with publishers' advertisement for Bell on the



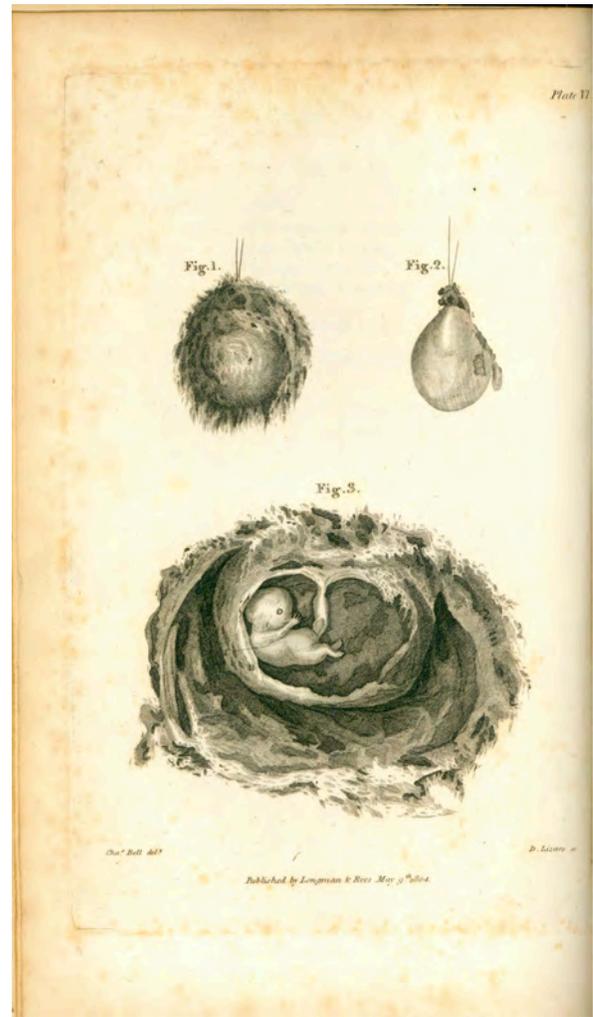
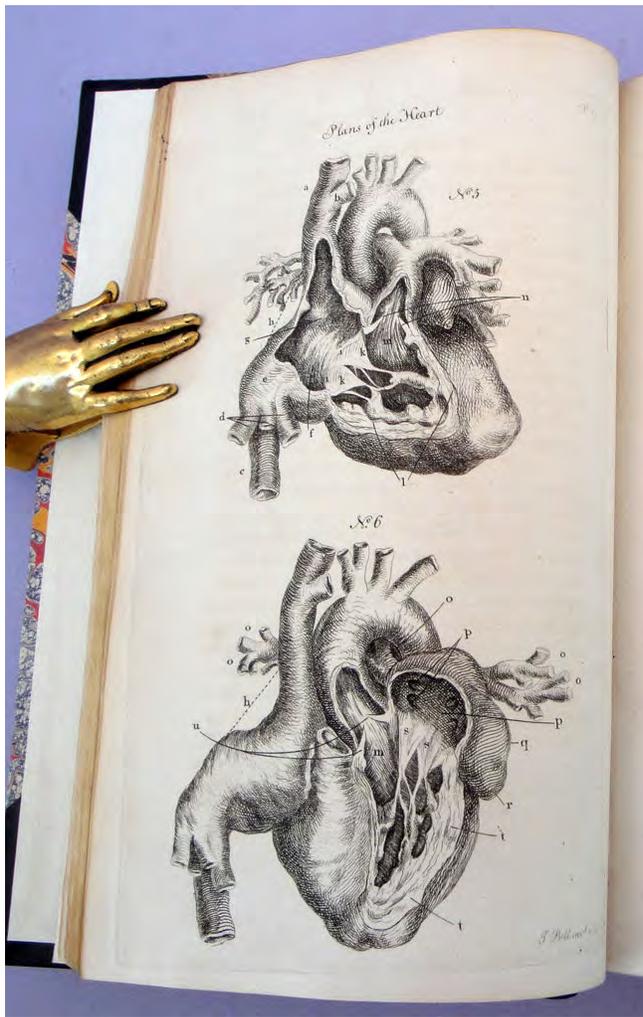
bones on its verso, but no part-title and no advertisement slip. The paper used in the author's issue is slightly more opaque than that in the regular issue, but otherwise quite similar.

The *Discourses* was intended to set a new standard in teaching surgery and was the most popular work Bell wrote. He gives a particularly valuable historical discussion of surgery of the arteries, and clear expositions of the new practice of early union of wounds, and of free anastomosis of arteries in injuries to the main trunks. *Heirs of Hippocrates* 728 (regular issue). 42543

¶ November will be published, The ANATOMY of the HEART and BLOOD-VESSELS, BRAIN, and NERVES, being the Second volume of Mr. Bell's Book of Anatomy.

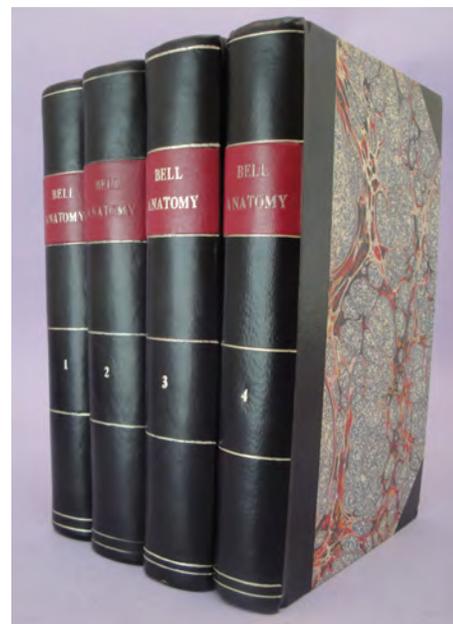
III.

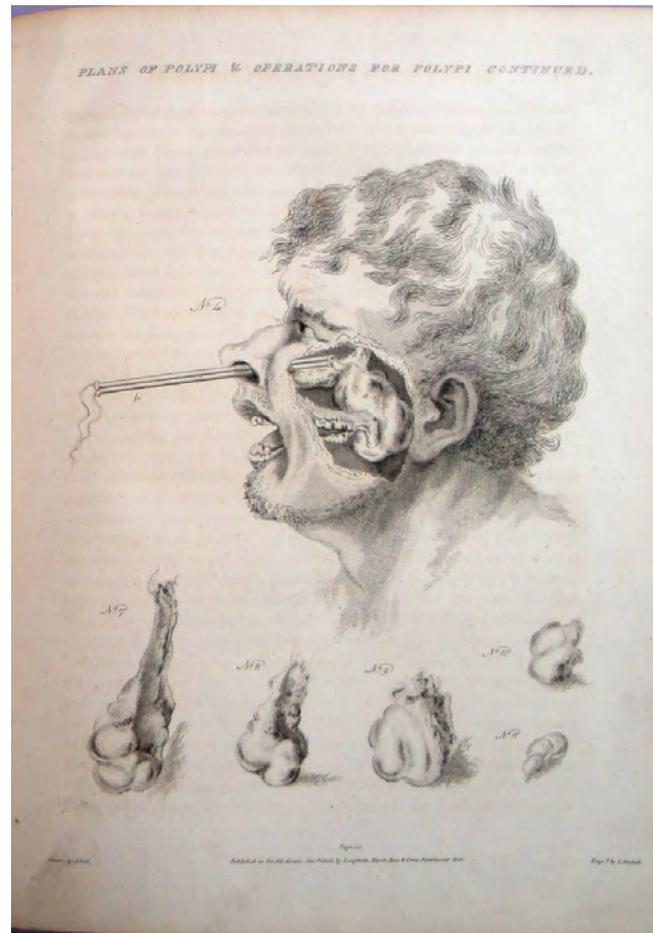
OF DANGEROUS WOUNDS OF THE LIMBS.



4. The anatomy of the human body. 4 vols., 8vo. xxxvi, 459; xxxi, 496; xii, 495; viii, iv, iv, 396, [2]pp. 33 engraved plates, many after drawings by John or Charles Bell, engraved text illustrations. London: A. Strahan for T. N. Longman and O. Rees . . . , 1802-4. 229 x 145 mm. Half calf, marbled boards in period style. Very good set. Signature of British apothecary Thomas Edward Amyot, dated 1835, in all volumes. \$1000

**First Editions** of Vols. III-IV; third edition of Vol. I; second edition of Vol. II. "The first great textbook contributed by the British school to modern anatomy" (Russell, *British Anatomy* [2<sup>nd</sup> ed.], no. 64). Vol. III, on the nervous system, and Vol. IV, on the abdominal organs, reproductive system and lymphatics, are by Charles Bell. Gordon-Taylor 1. 42544





*Superbly Illustrated & Extremely Scarce*

5. The principles of surgery. 3 vols. in 4, 4to. 3 engraved titles, 88 plates & text illustrations engraved by various artists, mostly after Bell's own drawings (some illustrations by **Charles Bell** [1774-1842]). Edinburgh: Cadell . . . , 1801; London: Longman . . . , 1806-1808. 286 x 230 mm. Half calf, marbled boards in period style, spines a bit faded. Some dampstains in fore-edge margin of Vol. II, part 2, library stamp removed from title and last leaf of Vol. III, some light foxing, browning & offsetting, a few plates slightly trimmed but a very good set, quite clean except for Vol. II, part 2. \$7500

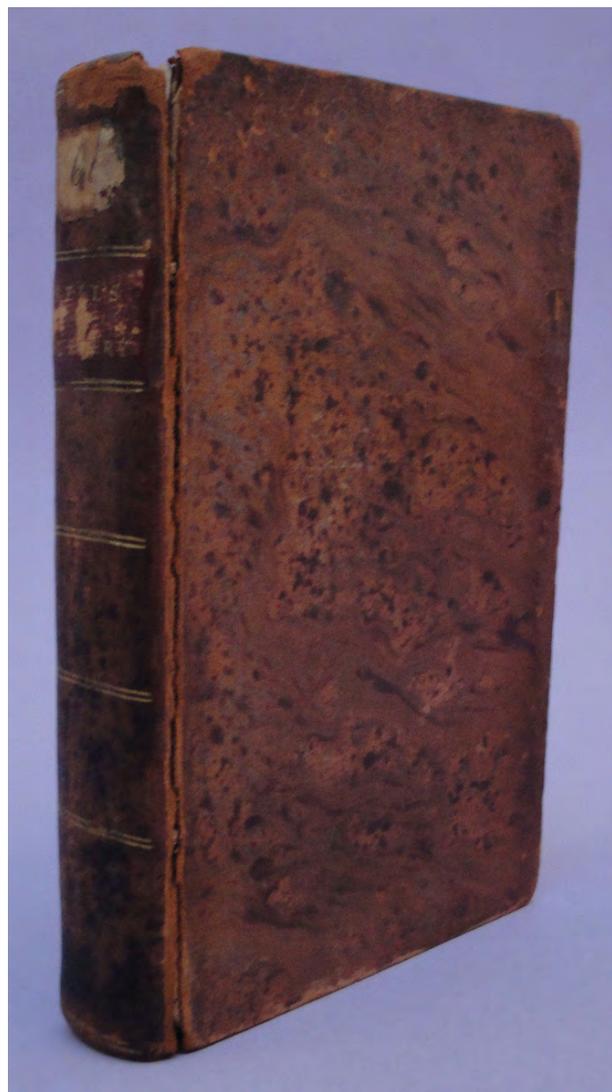
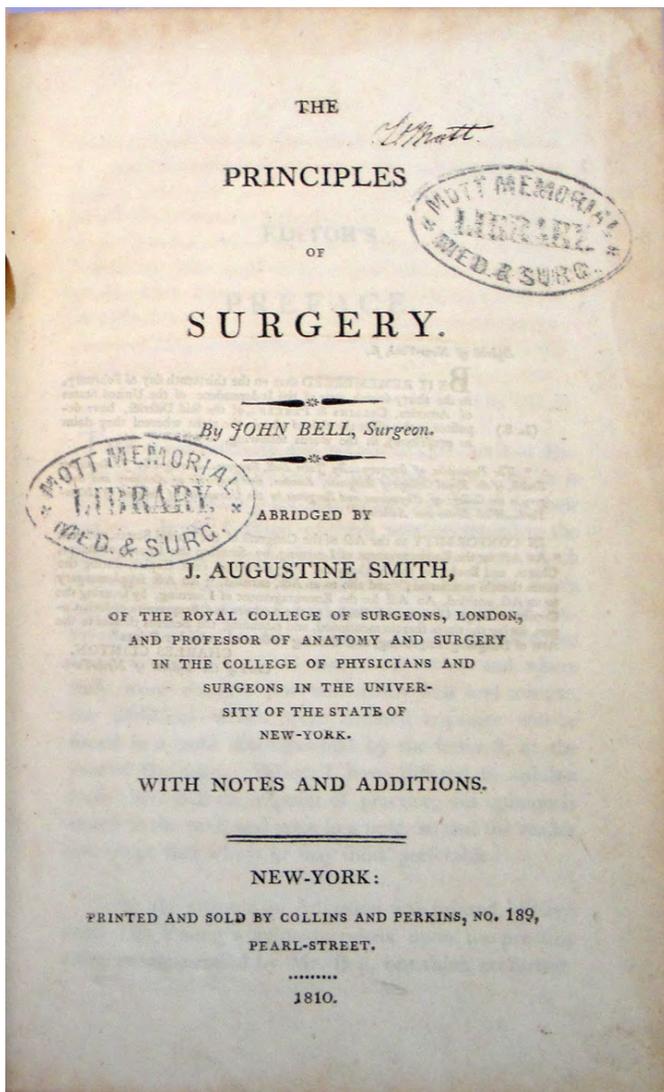
**First Edition.** "Bell's master work is his monumental *Principles of Surgery* . . . embellished with beautiful original engravings and full of unique historical insight and clinical matter relating to the ligation of the great vessels, fractures, trephining, tumors and lithotomy, of which he gives a detailed history (248 pages)" (Garrison, *History of Medicine*, p. 478). Bell took nearly a decade to publish the work. He provided the illustrations for almost all the plates and text figures, including the elaborate engraved title in vol. 2, and covered the "History, the Theories, the Rules, and the Actual Practice of Surgery, in one connected view" (Advertisement). He opens with pertinent remarks on the education of the surgeon, and then takes up the timely issue of adhesion, tracing the history of the subject, and supporting Tagliacozzi and Indian rhinoplasty, lately introduced in England (see Zeis 475 & Gnudi & Webster 302). Aneurysm and fractures are treated afterwards, followed by lithotomy, head injuries and tumors in succeeding volumes.



The leading operator and consultant in Scotland, and the founder of surgical anatomy, Bell was entirely cognizant of the worth of his *Principles of Surgery*. He wrote, upon concluding the second volume, “I have ventured to give a splendid form to a book of science, and those who love that science as I do, will not be offended” (Preface). The generous format, the scope and historical depth of the work, and its numerous extraordinary engravings from Bell’s own drawings indeed make the set splendid.

The nearly 100 full-page plates and numerous text engravings are among the most remarkable in medical illustration, all the more so because they are the work of the surgeon author himself. His work shows a realism and strength of expression unusual in its time and place.

Bell had his talented brother Charles prepare a few of the drawings for his *Principles*, and clearly Charles was influenced by John in his own works, for example the classic *Great Operations* of 1821. John Bell was one of the founders of vascular surgery, famous for ligating the gluteal artery, and tying the common carotid and internal iliac, and he provided numerous detailed text figures on the subject of vascular surgery in his *Principles*. Garrison-Morton 2926 (first ligation of the gluteal artery); 5581. Walls, “John Bell,” *Medical History* VIII (1964) 63–69. Thornton & Reeves 102. Comrie 324–25. Waller 865. 42557



*Valentine Mott's Copy*

6. The principles of surgery. Abridged by J. Augustine Smith . . . with notes and additions. xii, 562pp. 7 plates, text illustrations. New York: Collins and Perkins, 1810. 210 x 130 mm. 19th century tree calf, front hinge cracked, light wear and rubbing, front endpaper loosening. From the library of **Valentine Mott** (1785-1865), with his signature on the title; stamp of the Mott Memorial Medical and Surgical Library on the title and a few other places. \$950

**First American Edition.** From the library of Valentine Mott, the most celebrated American surgeon of the first half of the nineteenth century. Mott was a pioneer in vascular surgery: In 1818 he became the first to tie the innominate artery (see Garrison-Morton 2942), and in 1827 he performed the first successful ligation of the common iliac artery (see Garrison-Morton 2950). He was one of the first American surgeons to successfully amputate at the hip joint (see Garrison-Morton 4451.1) and to excise the jaw for necrosis (see Garrison-Morton 4447). 42175



From Gordon-Taylor, Sir Charles Bell (1958)

### *Charles Bell (1774-1842)*

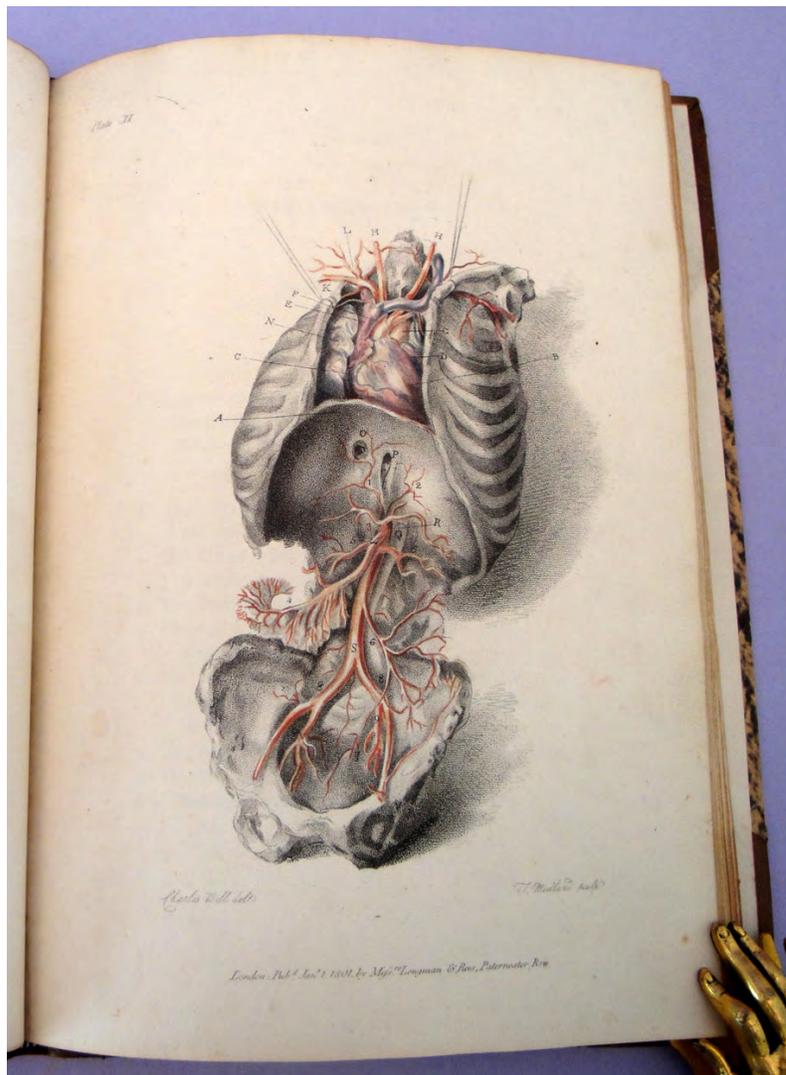
Charles Bell was one of the foremost British anatomists of the 19<sup>th</sup> century. He received his medical education at Edinburgh University, where he studied anatomy under Monro *secundus*, and also received instruction from his brother John while assisting him at his anatomy school. Like John, Charles Bell was barred from the Royal Hospital of Edinburgh in 1800 after the controversy with James Gregory; he afterwards left Scotland for London, where he gradually built up a successful surgical practice. From 1812 to 1825 Bell was co-owner of and principal lecturer at William Hunter's Great Windmill Street School of Anatomy; he was also instrumental in founding the Middlesex Hospital Medical School in 1828. In 1836 Bell returned to Edinburgh to take up the post of professor of surgery at Edinburgh University. He died six years later.

Bell's anatomical researches resulted in several important milestones, including the first descriptions of the long thoracic nerve ("Bell's nerve"), myotonia, and "Bell's palsy," the facial paralysis resulting from damage to the motor nerve of the face. Like his brother John, Charles Bell was a superb artist and draftsman who illustrated his own books. He published a number of anatomical and surgical works based on his researches, including *The Anatomy of the Brain* (1802), *Essays on the Anatomy of Expression in Painting* (1806), *A System of Operative Surgery* (1807-9), *Illustrations of the Great Operations of Surgery* (1821), *An Exposition of the Natural System of Nerves of the Human Body* (1824), and *The Hand: Its Mechanism and Endowments, as Evincing Design* (1833). He also collaborated with John Bell on *The Anatomy of the Human Body* (1797-1804).

Bell is best known for his role in the discovery of the discrete functions of the dorsal (sensory) and ventral (motor) roots of the spinal cord and brain stem—the “Bell-Magendie law,” described by E. R. Ackerknecht as “probably the most momentous single discovery in physiology” after Harvey (quoted in Cranefield, *The Way In and the Way Out*, p. xiii). In 1811 Bell issued a privately printed pamphlet titled *Idea of a New Anatomy of the Brain* in which he described his pioneering experimental work on the nerve roots. By cutting the roots he was able to demonstrate the motor functions of the ventral nerve roots; however, since he performed his experiments on dead or stunned animals, he was not able to establish the sensory functions of the dorsal roots, instead concluding erroneously that the fibers of the ventral root are both motor *and* sensory. In 1822 the French physiologist François Magendie, after performing similar root-cutting experiments on live puppies, published his “Expériences sur les fonctions des racines des nerfs” (*Journal de physiologie expérimentale et pathologique* 2: 276–279) announcing his discovery that the dorsal roots control sensation and the ventral roots control motor activity. Bell claimed that he had anticipated Magendie in this discovery; the ensuing controversy lasted for many years. During the 19<sup>th</sup> and part of the 20<sup>th</sup> century priority for the “Bell-Magendie law” was given to Bell; however, it has been demonstrated by Cranefield and others that Magendie was responsible for the discovery.



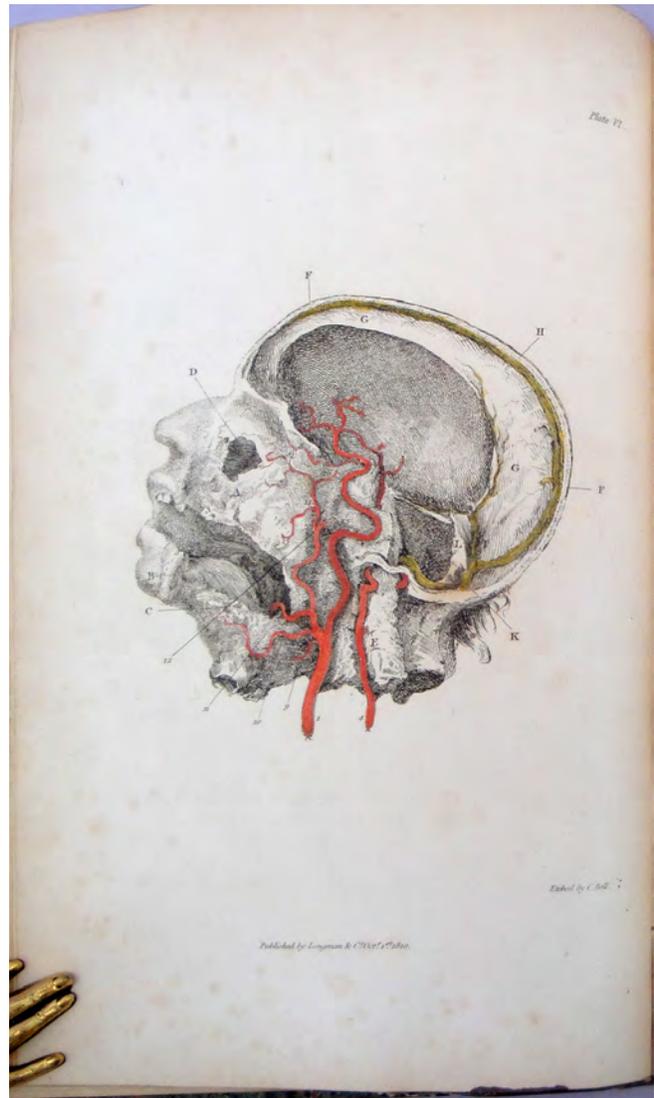
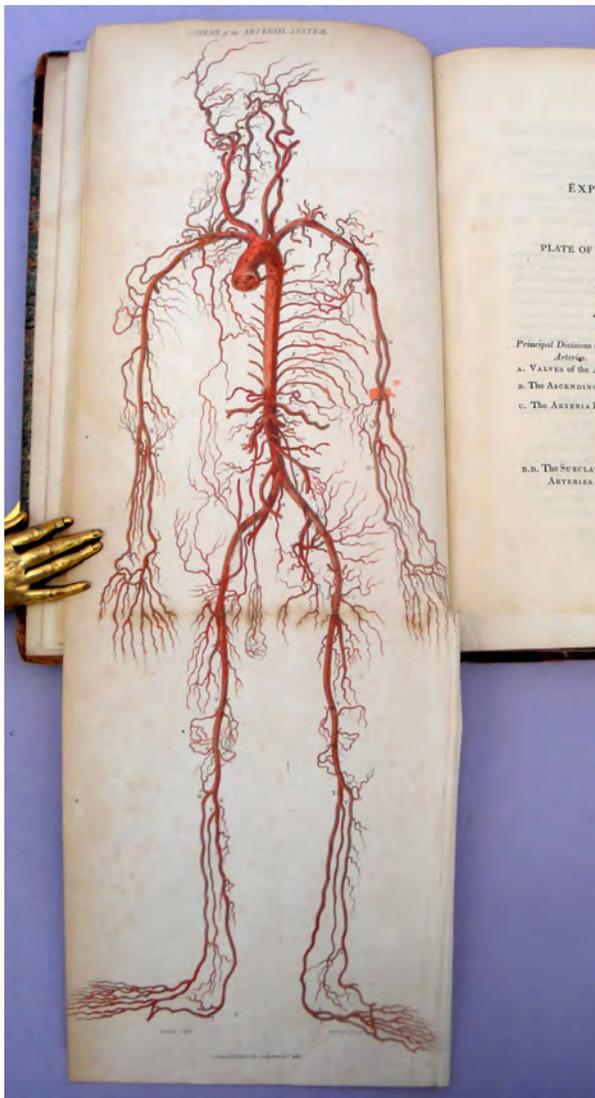
No. 24



7. Engravings of the arteries, illustrating the second volume of the *Anatomy of the Human Body* . . . and serving as an introduction to the *Surgery of the Arteries*. 4to. [4], 49pp. 10 hand-colored engraved plates by Thomas Medland after Bell's drawings. London: C. Whittington for T. N. Longman and O. Rees . . . , 1801. 257 x 183 mm. Later half morocco, mottled boards, light wear, spine faded. Minor foxing but very good. Bookplate \$750

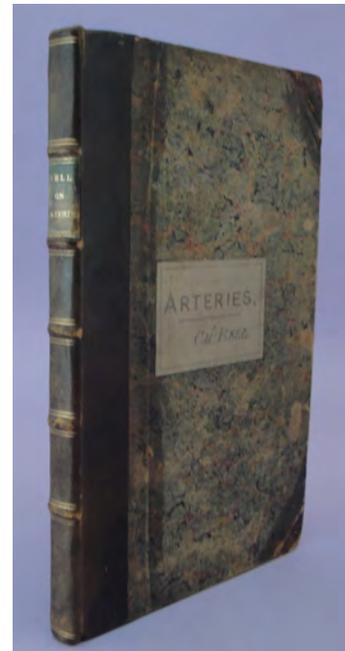
**First Edition.** Gordon-Taylor 3. 42546

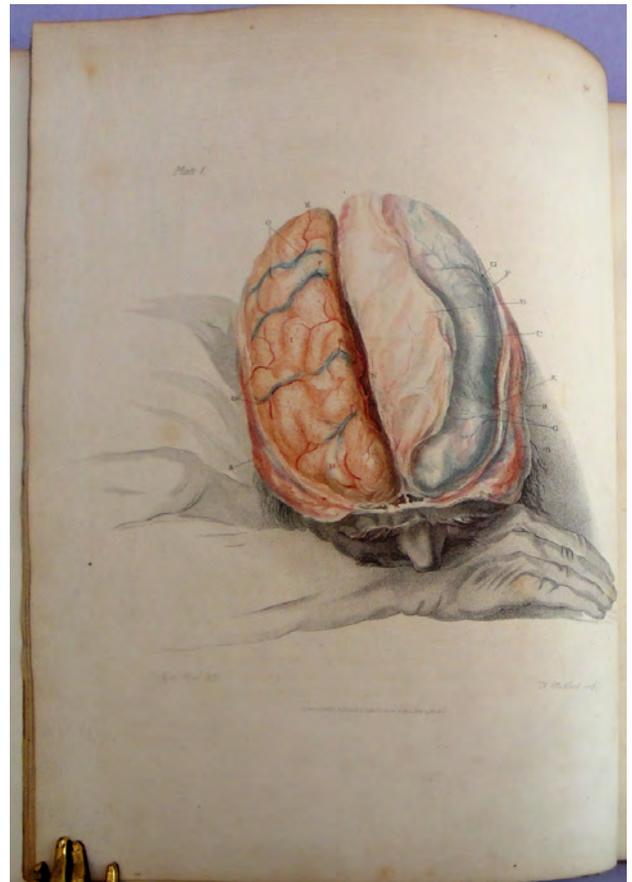




8. Engravings of the arteries; illustrating the second volume of the *Anatomy of the Human Body*, and serving as an introduction to the *Surgery of the Arteries*. 8vo. [8], viii, 55pp. 14 hand-colored plates, 13 of these either engraved or drawn by Bell. London: Longman, Hurst, Rees, Orme and Brown, 1811. 233 x 145 mm. 19<sup>th</sup> century half morocco, marbled boards, light wear, hand-lettered label on front cover. Minor foxing, small ink-stain on lower edge, but very good. Bookplate. \$950

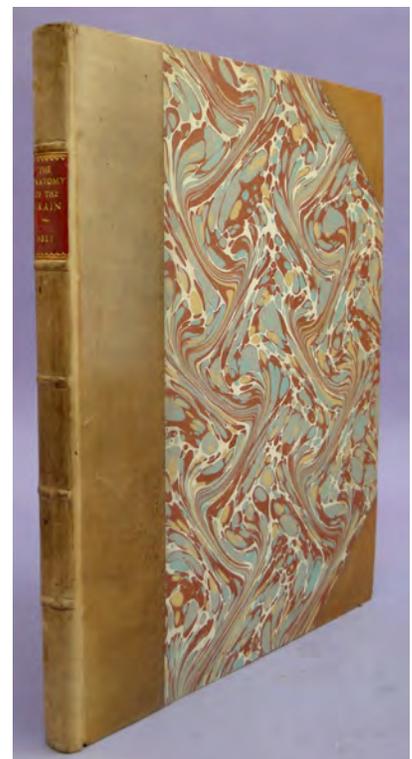
**Third and Best Edition**, the first with the plates both engraved or drawn by Charles Bell. In his preface Bell disavowed the earlier editions, stating that the engraver of the plates for those editions had misinterpreted his ideas. The third edition's plates are much more realistic and accurate in anatomical detail than those in the earlier editions. There are two "third editions" of this work, one dated 1810 containing 33 pages and 11 plates, and the present 1811 edition containing 55 pages and 14 plates is the best of all the editions. The additional text in this edition includes Bell's "introduction of some rules for cutting down upon the arteries, in cases of dangerous bleedings" (Preface to 3<sup>rd</sup> edition). 42547

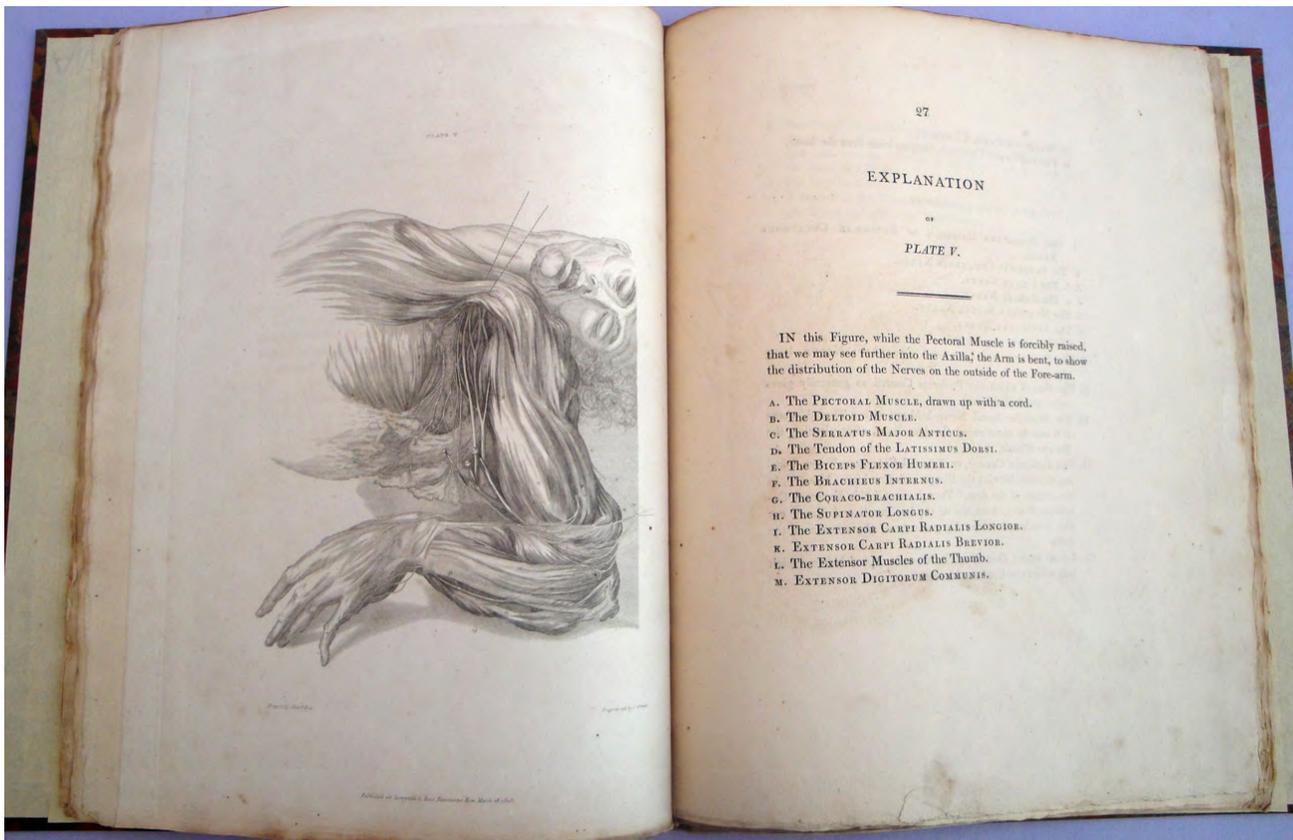




9. The anatomy of the brain, explained in a series of engravings. 4to. vii, 87pp. 12 stipple-engraved (possibly combined with aquatint) plates, numbered I-XII; the first 11 hand-colored; drawn by Charles Bell and engraved by Thomas Medland, Freeman, John Stewart and William Archibald. Plates I-X printed in colors as well as colored by hand. London: C. Whittingham for T. N. Longman and O. Rees; T. Cadell, Jun. and W. Davies, 1802. 290 x 232 mm. Half calf, marbled boards in period style, spine faded. Occasional faint foxing but a fine copy. Bookplate. \$5750

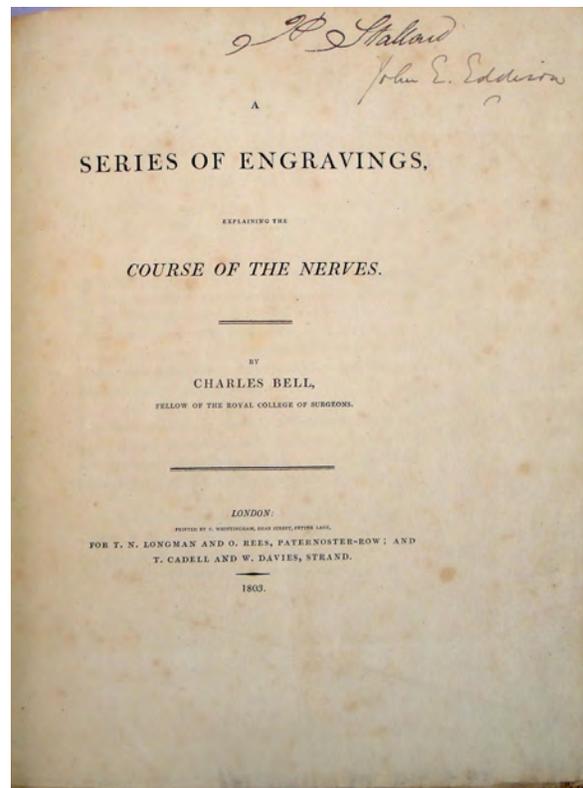
**First Edition.** Bell was trained in art as well as in medicine, and his twelve plates illustrating the structure of the brain are among the most beautiful in neuroanatomy. Plate I is important for its accurate portrayal of the cerebral gyri. The plates have been described as aquatints, but upon examination, most of the work appears to have been produced by stipple-engraving. Clarke & Dewhurst, p. 87. Gordon-Taylor 4. Norman 168. 42560

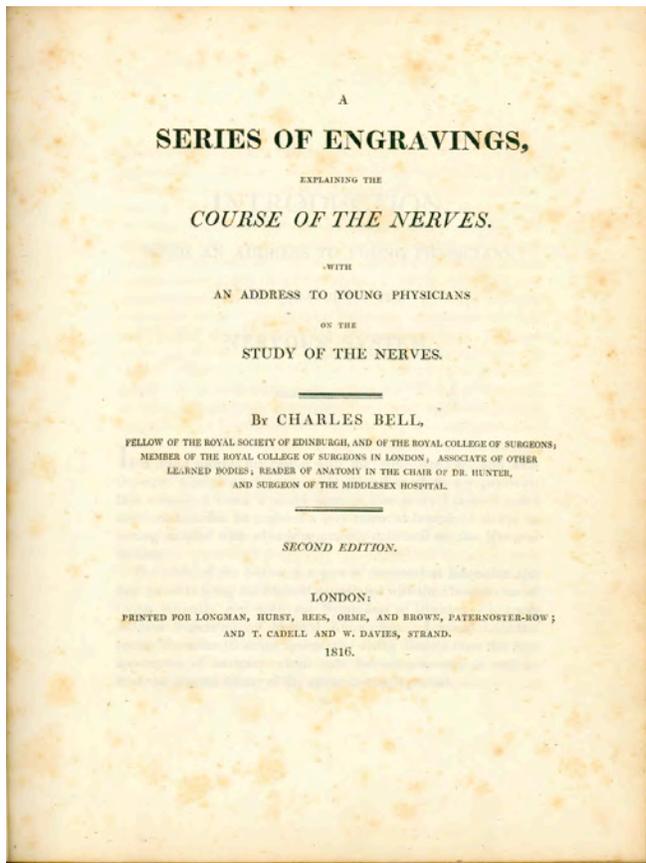




**10.** A series of engravings, explaining the course of the nerves. [4], 49pp., adverts. 9 plates engraved by Robert Scott (1771-1841), J. Grant and Daniel Lizars (d. 1812) after Bell's drawings. London: C. Whittingham for T. N. Longman and O. Rees; T. Cadell and W. Davies, 1803. 308 x 244 mm., uncut. Quarter calf gilt, marbled boards in period style, spine faded. Some browning & foxing, light dampstain in lower margin of 2 or 3 plates, but very good. \$2250

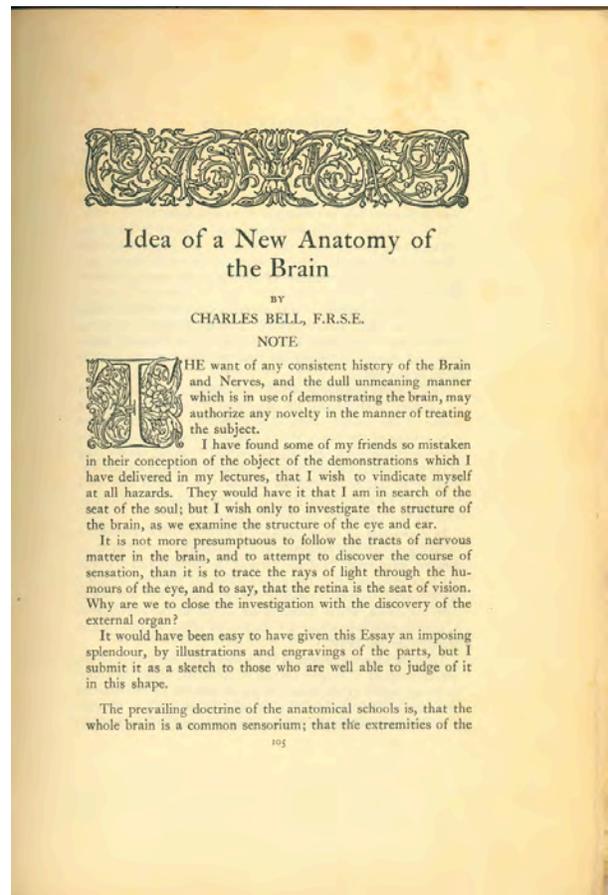
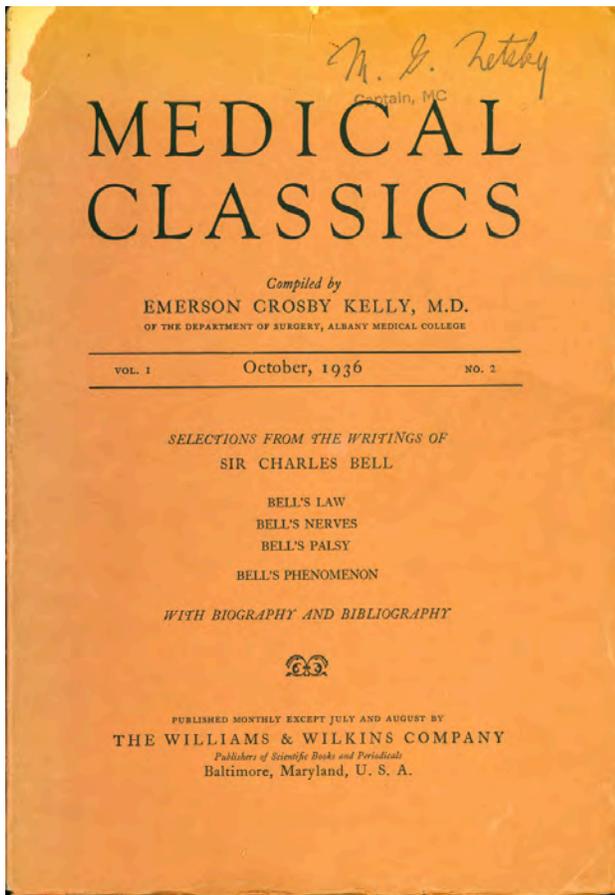
**First Edition.** The second great illustrated work in neuroanatomy produced by Bell, "still unrivaled for facility of expression, elegance of style, and accuracy of description" (Choulant / Frank 343). Gordon-Taylor 5. Norman 169. 42558





**II.** A series of engravings, explaining the course of the nerves. 4to. xx, 49, [3, including ads] pp. 9 engraved plates after Bell's drawings. London: Longman, Hurst, Rees, Orme & Brown; T. Cadell & W. Davies, 1816. 271 x 214 mm. Tree calf c. 1816, rebacked, endpapers renewed, spine faded, light wear at corners. Minor foxing and offsetting, but very good. Bookplate. \$1250

Second edition, the first to include Bell's "Address to young physicians on the study of the nerves." This edition incorporates a large portion of the text of Bell's *Idea of a New Anatomy of the Brain* (1811), but makes no mention of any findings from this work regarding the separate functions of the roots of the spinal nerves, indicating that Bell had no understanding of his findings at this time. Cranefield, p. 44. Gordon-Taylor 5. 42562



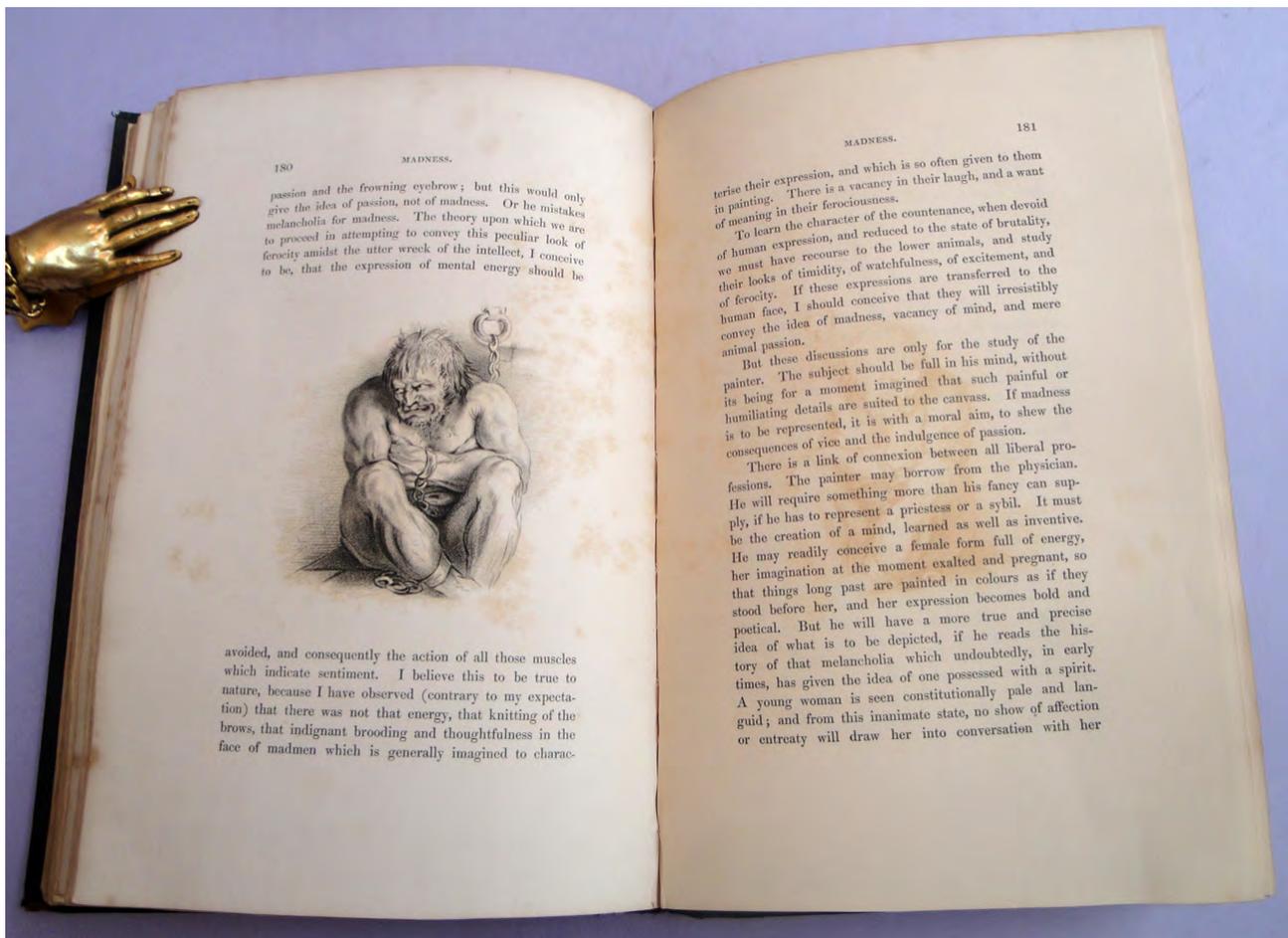
**12.** Idea of a new anatomy of the brain. In: *Medical Classics* 1 (1936): 105–120; plate. Whole number. [2], 81–190pp. 7 plate leaves. 258 x 182 mm. Original printed wrappers, chipped, spine worn. Minor dampstaining but a good copy. Ownership signature and stamp on front wrapper. \$50

Bell's *Idea of a New Anatomy of the Brain* was originally issued in 1811 as a privately circulated pamphlet, printed in only a small number of copies. In it "Bell used anatomical reasoning . . . to conclude [wrongly] that fibers of the anterior root derive from the cerebrum and are both motor *and* sensory whereas fibers of the posterior root derive from the cerebellum and 'govern the operations of the viscera necessary to the continuance of life'" (Cranefield, p. 3). This issue of *Medical Classics* also contains reprints of Bell's papers on the nerves published in 1821 and 1822 in the *Philosophical Transactions*, as well as a brief biography and bibliography. 42548



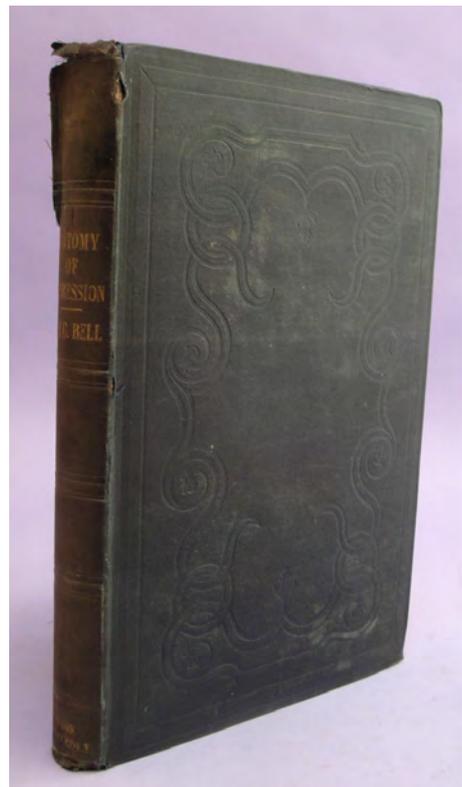
**13.** Essays on the anatomy of expression in painting. 4to. xii, 186pp. 6 engraved plates, engraved text illustrations after drawings by Bell. London: Longman, Hurst, Rees and Orme, 1806. 298 x 232 mm. Calf c. 1806, rebacked, spine faded, minor edgewear. Very good copy. Bookplate. \$1250

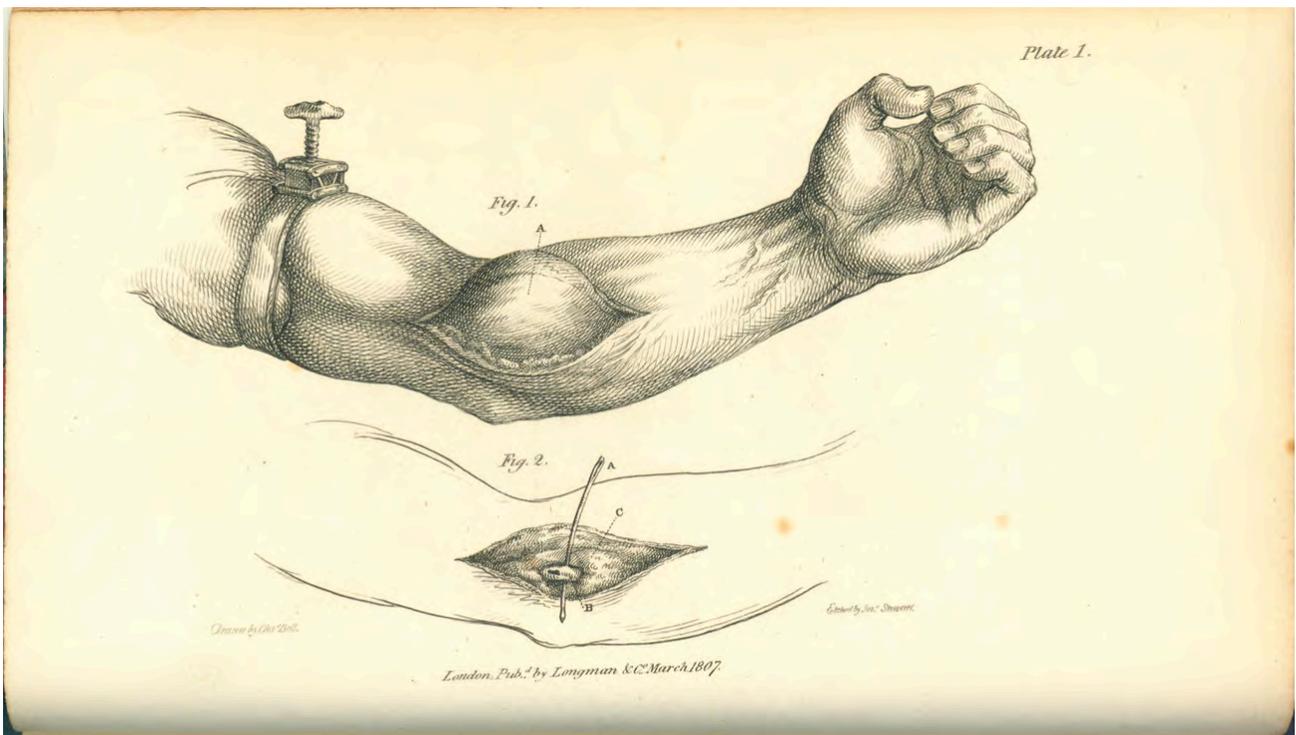
**First Edition.** Bell's artistic and literary skills, combined with his knowledge of anatomy and physiology, served to make his essays on the anatomy of expression in painting a tour de force of science, art history and philosophy. Although the expression of emotions had often been treated by artists, it had rarely been studied by someone who excelled in both art and science, and never as completely as in the present work. Bell's exposition of the anatomical and physiological basis of facial expression impressed Charles Darwin who mentioned it in his own *Expression of the Emotions in Man and Animals* (1872), stating that Bell had laid "the foundations of the subject as a branch of science" (p. 2). Gordon-Taylor 6. Norman 170. 42559



**I4.** The anatomy and philosophy of expression connected with the fine arts. viii, 265pp. Publisher's advertising slip bound in the back. 4 plates after Bell's drawings. London: John Murray, 1844. 260 x 175 mm. Original cloth, upper portion of spine and corners worn. Minor foxing, but very good. \$275

Third edition of Bell's *Essays on the Anatomy of Expression in Painting*, containing the author's final corrections. This was Darwin's preferred edition, as he stated on p. 3 of his *Expression of the Emotions in Man and Animals* (1872). This edition not cited by Gordon-Taylor. 42574





*Surgery Based on Anatomy—Ex-Libris the First Medical Aeronaut*



**15.** A system of operative surgery, founded on the basis of anatomy. 8vo. xxxii, 448; xxiv, 385, [1], [6]pp. (adverts.). 21 full-page plates engraved after Bell's drawings by J. Stewart; 93 engraved text figures after Bell. London: Longman. . . , 1807-9. 2 vols. 232 x 143 mm. Modern quarter morocco, period style. Minor foxing & browning, some offsetting from plates. Very good set. **From the library of the American physician John Jeffries** (1744/45-1819; see G-M 2137.2), the first physician to make a balloon flight and the first to fly across the English Channel, with his bookplate in Vol. I and that of his grandson, **Benjamin Joy Jeffries**, in Vol. II. Library stamps. \$2750

**First Edition.** The first English handbook of operative surgery founded on anatomy, and *exceptionally rare in the original edition*. Trained under his brother John, the founder of surgical anatomy, and already the author of a dissection manual (*A System of Dissections*, 1799-1801, G-M 402), Charles Bell was well-placed to provide the first handbook of surgery based on anatomy. He published it at the same time that he was establishing himself in London, and it served as the foundation of his career as one of the greatest surgeons of the day. Bell's book is also notable for its over one hundred engravings based on his distinctive drawings. Garrison-Morton 5583. Zimmerman & Veith, *Great Ideas in the History of Surgery*, pp. 410-13. *Heirs of Hippocrates* 782. Gordon-Taylor 7. 22000



**16.** A system of operative surgery, founded on the basis of anatomy. 2 vols., 8vo. xxxii, 448; xxiv, 385, [1], [6, adverts.]pp. 21 full-page plates engraved after Bell's drawings by J. Stewart; 93 engraved text figures after Bell. London: Longman . . . , 1807-9. 234 x 146 mm. 19<sup>th</sup> century half calf over boards, rebaced, rubbed, corners repaired. Some toning and offsetting, library stamps on plates, small tear in margin of Vol. I title repaired, but a good set. "Ex libris Societatis Medico Edinensis" inscribed on both titles. Bookplate \$2500

**First Edition.** Garrison-Morton 5583. Zimmerman & Veith, *Great Ideas in the History of Surgery*, pp. 410-13. *Heirs of Hippocrates* 782. Gordon-Taylor 7. 42569

**17.** A system of operative surgery, founded on the basis of anatomy. 2 vols. [4, ads], xvi, [4], xxii, 410; xxxi, 523pp. 26 plates, including 13 plates of gunshot wounds after drawings by Bell. London: Longman, Hurst, Rees, Orme and Brown, 1814. 230 x 142 mm. (uncut). Original boards, rebaced with new printed labels, light edgewear and rubbing. Very good. \$950

Second edition, enlarged. This edition was the first book to show illustrations of actual patients to illustrate how sick each was. 42549

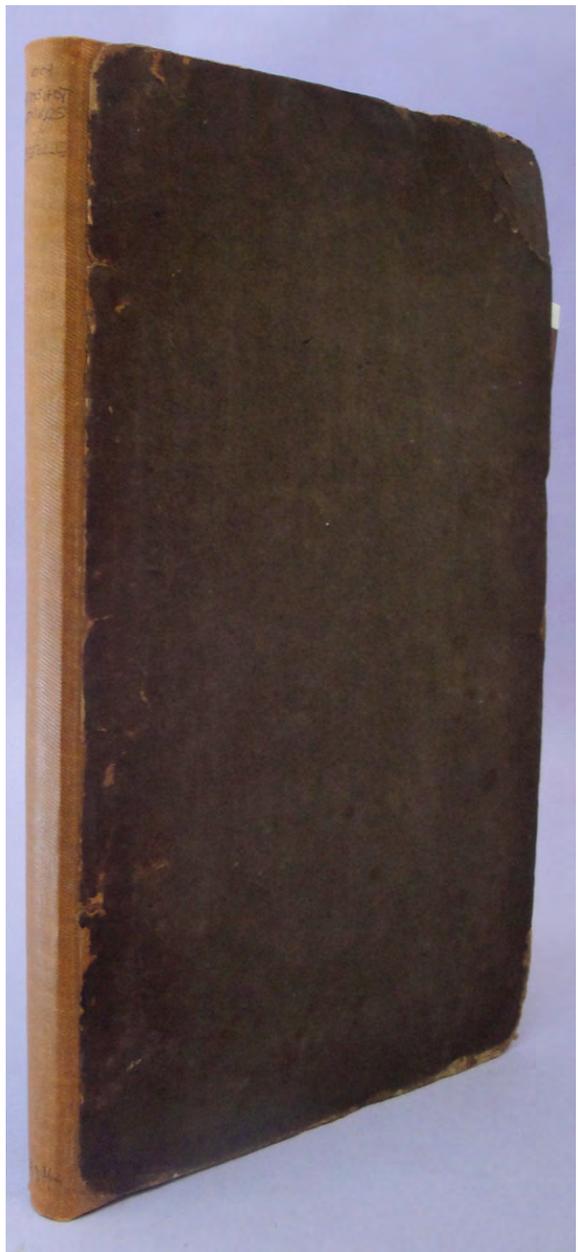




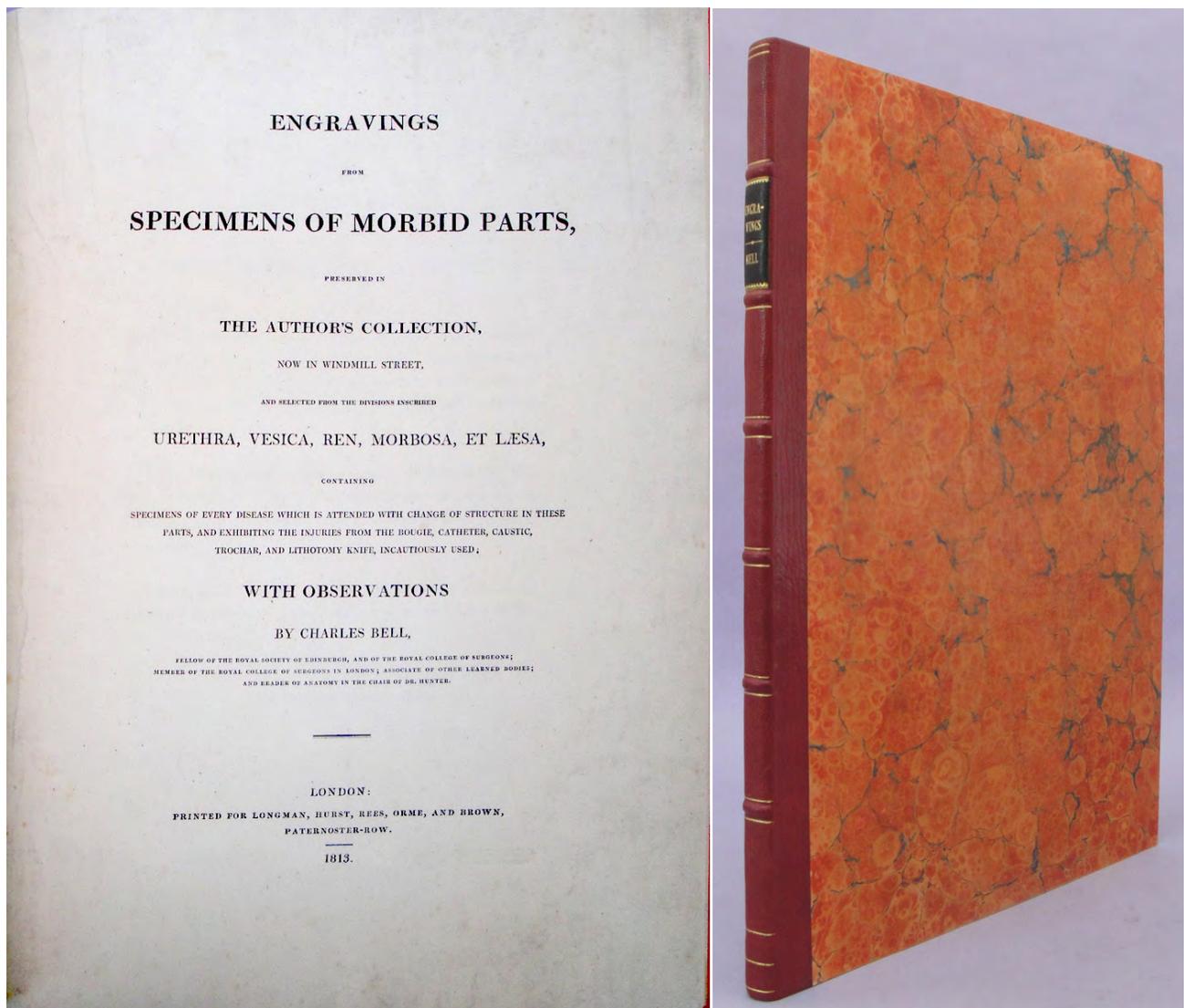
**18.** Letters concerning the diseases of the urethra. [8], 13-155, [9]pp. 6 engraved plates after Bell's drawings. Boston: W. Wells & T. B. Wait . . . , 1811. 206 x 122 mm. 129<sup>th</sup> century quarter sheep, marbled boards, spine a bit worn. Some foxing and toning, upper corner of title-leaf torn away, but very good. Ownership signature of D. W. Daggett on second leaf. \$450

**First American Edition.** Gordon-Taylor 9. 653

**19.** A dissertation on gun-shot wounds. 8vo. 69, [3, incl. adverts.]pp. Publisher's catalogues dated Dec. 1814 and March 1815 bound in front and back. 13 folding plates on 7 sheets, text illustrations. London: Longman, Hurst, Rees, Orme & Brown, 1814. 250 x 153 mm. (uncut). Original boards, worn, rebaked in cloth. Minor foxing but very good. Bookplate. \$1250



**First Separate Edition.** A note on the verso of the title states: "This dissertation, being a part added to the new edition of Operative Surgery by Charles Bell, the publishers have reprinted these sheets for the accommodation of the purchasers of the former edition." Bell served briefly as a military surgeon during the Napoleonic Wars, and made numerous striking drawings of the gunshot patients and their wounds. This is possibly the first medical work to include illustrations of wounded patients drawn from life. Gordon-Taylor 13. 42549



**20.** Engravings from specimens of morbid parts . . . urethra, vesica, ren, morbosa, et laesa. . . [Fasciculus I—all published.] Folio. vii, 45pp. 12 plates after Bell, some engraved by him, others by Stewart. London: Longman . . . , 1813. 454 x 324 mm. Quarter morocco, marbled boards in period style. Faint offsetting from plates, but very good. \$2500

**First Edition.** Probably the rarest of Bell's publications after his *New Idea*, and one of the finest publications on its subject, with life-size plates from Bell's drawings, many etched by Bell himself. Goldschmid (103) described the twelve plates as "of the very greatest accuracy." This is the largest of Bell's books from the standpoint of physical format.

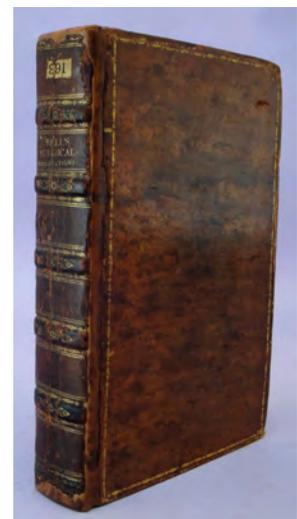
In 1811 Bell had published his *Diseases of the Urethra* and classified strictures of the urethra. He was one of the few nineteenth century surgeons to give precedence to pathology over complicated instruments in the treatment of strictures. Gordon-Taylor 12. 34987

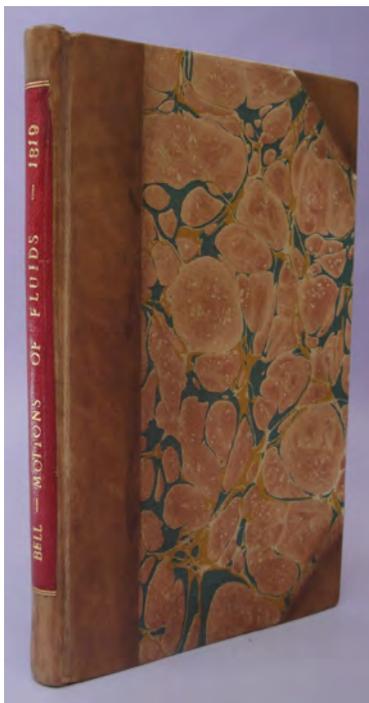
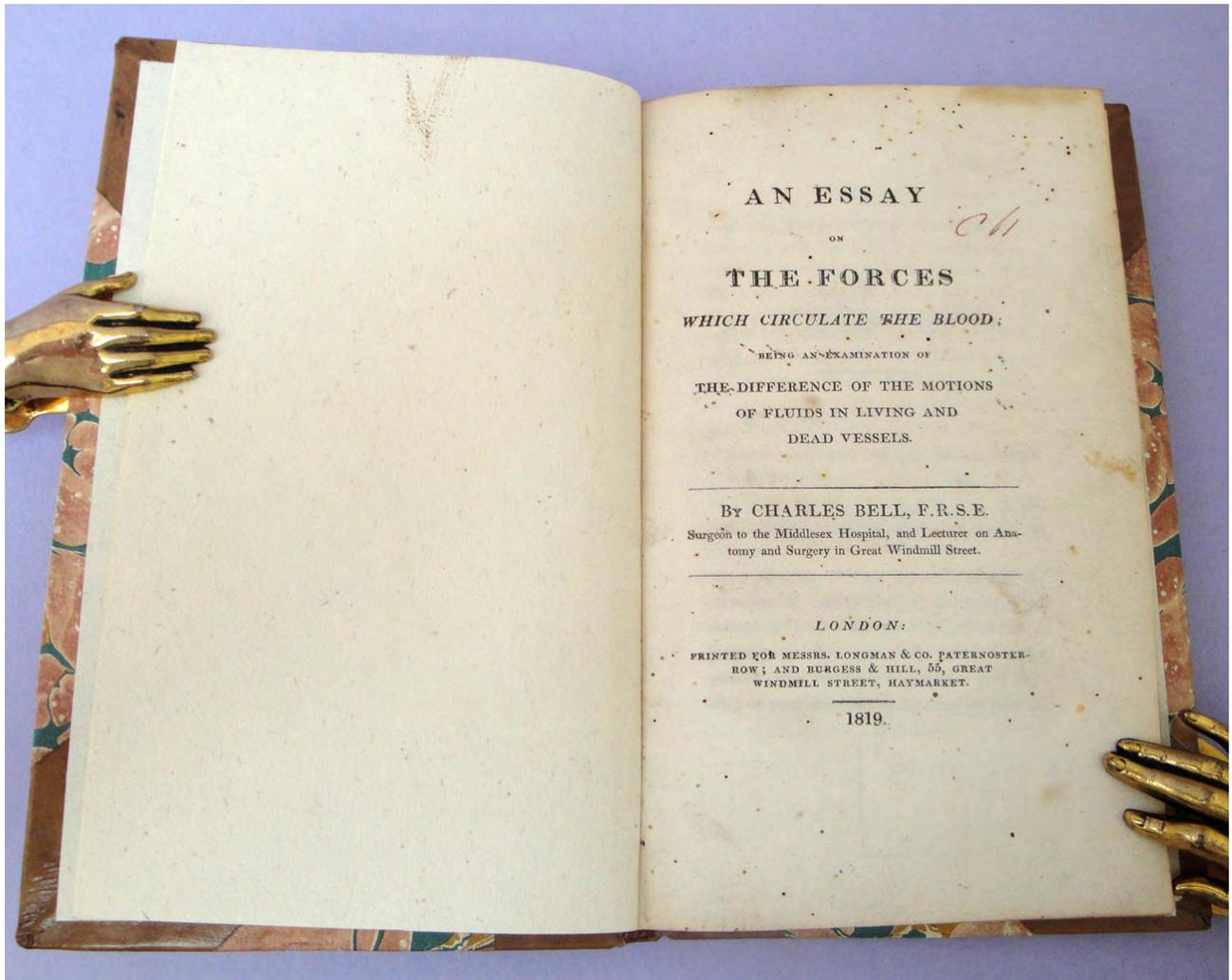


### *Walter Dandy's Copy*

**21.** Surgical observations; being a quarterly report of cases in surgery . . . 8vo. xxii, 500pp. 15 plates. London: Longman, Hurst, Rees, Orme and Brown, 1816. 208 x 135 mm. Mottled calf ca. 1816, gilt-ruled, rebacked preserving original spine, wear at fore-edges and corners. Minor foxing, but very good. 19<sup>th</sup> century signature of William Ryland on title. **From the library of neurosurgeon Walter E. Dandy** (1886-1946), with his bookplate. \$1250

**First Edition.** A second volume of Bell's *Surgical Observations* was published in 1818. This copy of the 1816 volume is from the library of Walter E. Dandy, one of the founders of neurosurgery, whose many discoveries and innovations include the surgical treatment of hydrocephalus and the establishment of the first intensive care unit. Gordon-Taylor 14. 42542





**22.** An essay on the forces which circulate the blood; being an examination of the difference of the motions of fluids in living and dead vessels. 12mo. viii, 83pp. London: Longman & Co., 1819. 177 x 109 mm. Half calf, marbled boards in period style. Occasional spotting, but very good. \$850

**First Edition.** Bell held that the circulation was not governed solely by hydrodynamic laws but also by a vitalistic “law of attraction as marvelous as that which confines the stars within their orbit” (quoted in Gordon-Taylor, p. 166). Gordon-Taylor 15. 42540

**23.** On the nerves; giving an account of some experiments on their structure and functions, which lead to a new arrangement of the system. Extract from *Philosophical Transactions* III (1821): 398-424; engraved plate by J. Basire after Bell. 280 x 220 mm. Modern wrappers over cardboard, chipped. Plate spotted and toned, some offsetting, but very good. Modern bookplate. \$275

**First Edition** of this classic paper containing Bell’s description of the long thoracic (“Bell’s”) nerve. This version of the paper “contains no

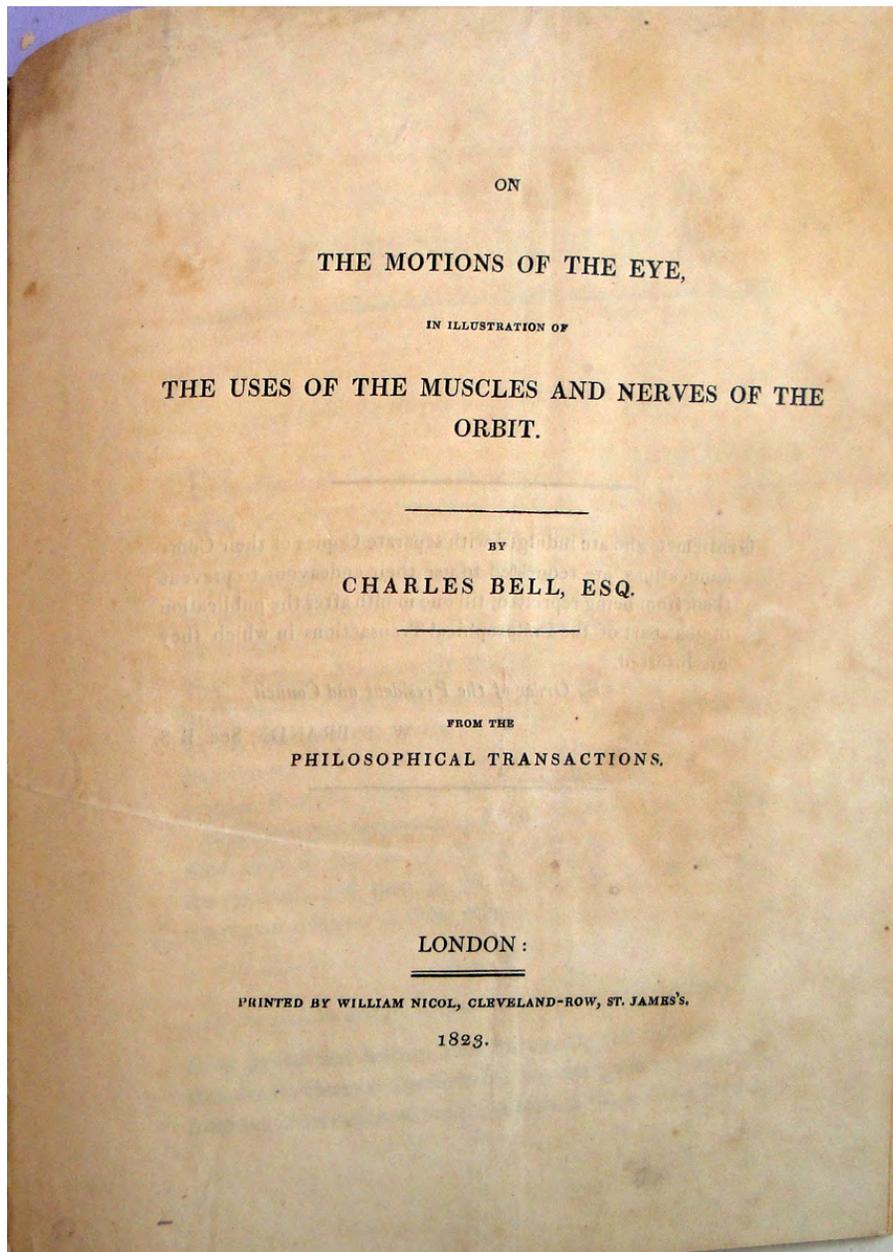


No. 24

statement that the dorsal root is sensory and the ventral root motor. Equally important, it contains no explicit distinction between the sensory and motor roots of the Vth nerve” (Cranefield, p. 7). In his *Exposition of the Natural System of the Nerves* (1824), Bell revised this paper to agree with the findings of François Magendie and Herbert Mayo regarding the functions of the nerve roots. Garrison-Morton 1255. Gordon-Taylor 18. 42566

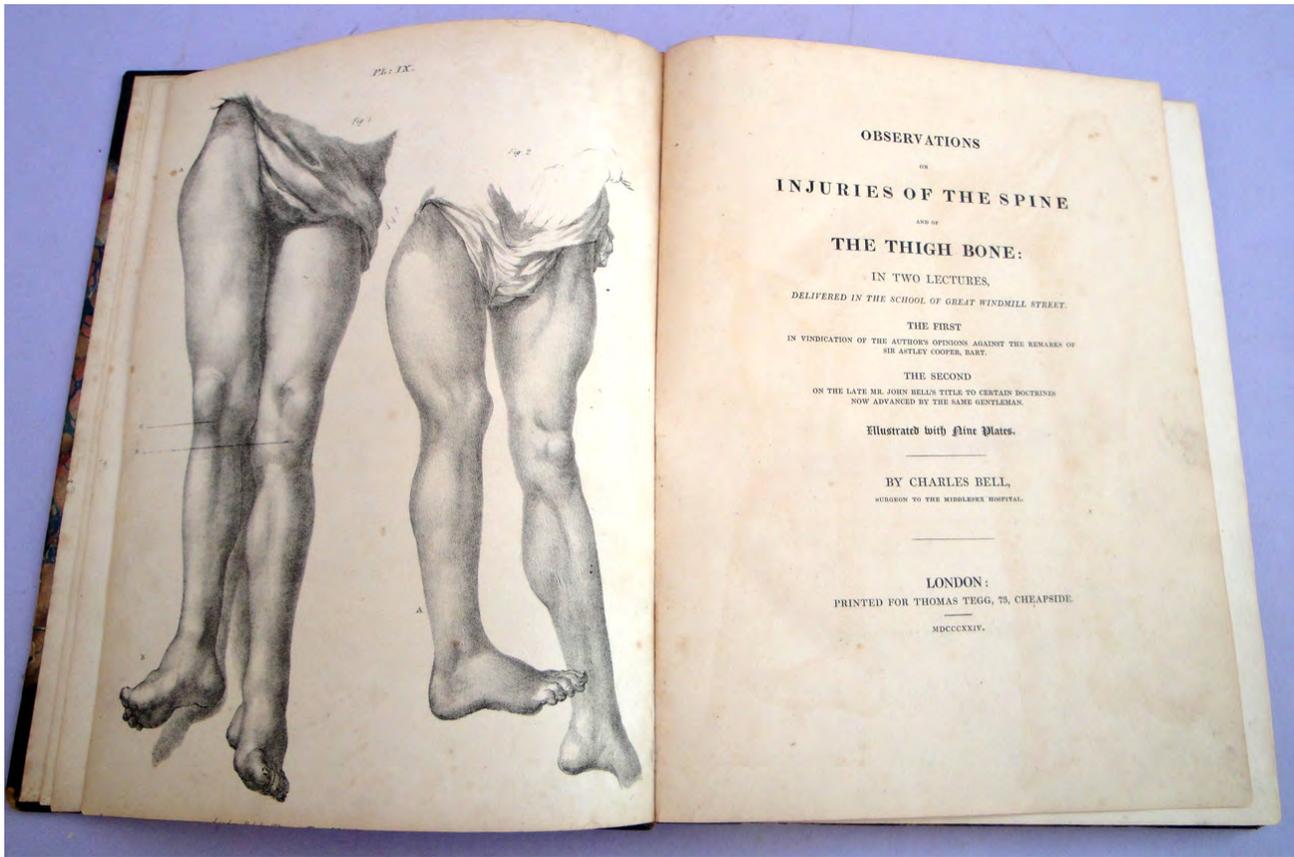
**24.** Illustrations of the great operations of surgery, trepan, hernia, amputation, aneurism, and lithotomy. Oblong folio. viii, 134pp. 20 plates printed in sepia, all but 3 hand-colored, engraved by Thomas Landseer after drawings by Bell; engraved text illustration. London: Longman, Hurst, Rees, Orme and Brown, 1821. 270 x 376 mm. Original quarter sheep, cloth boards, rebaked, original leather label on front cover, some corner- and edgewear but sound. Some insect damage to rear endpapers, some wrinkling and marginal wear to front free endpaper, minor foxing, but very good. Bookplate and library stamp of the Norwich & Norfolk United Medical Book Society. \$5500

**First Edition, First Issue**, with the title dated 1821 and the inclusion of “Hurst” in the list of publishers. One of the most remarkable illustrated books in the history of surgery, Bell’s *Great Operations* was originally issued in parts from 1820–1821 and made its first appearance in book form in 1821. The work’s large, vigorously drawn plates were prepared by Thomas Landseer (brother of Edwin Landseer, the popular Victorian painter of animal subjects) from drawings of operations Bell had made over the previous twenty years. Most copies have the plates printed in black, but some copies, like this one, have the plates in sepia. Garrison-Morton 5588. Gordon-Taylor 17. Norman 174. 42545



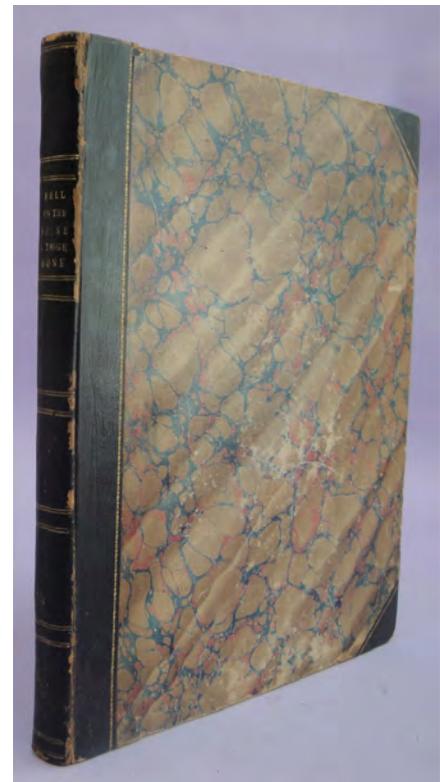
25. On the motions of the eye, in illustration of the uses of the muscles and nerves of the orbit. Off-print from *Philosophical Transactions* 113 (1823). [2], 21pp. Engraved plate by Basire after Bell. London: William Nicol, 1823. 248 x 190 mm. Modern cloth, title in ink on spine. Some toning, vertical crease, dampstain in upper margin of plate, but a good copy. \$1250

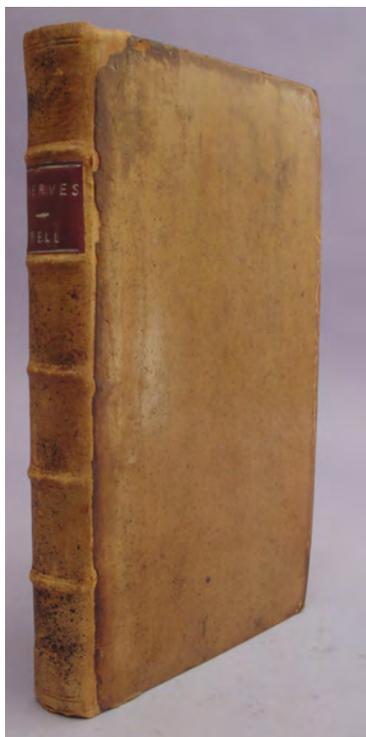
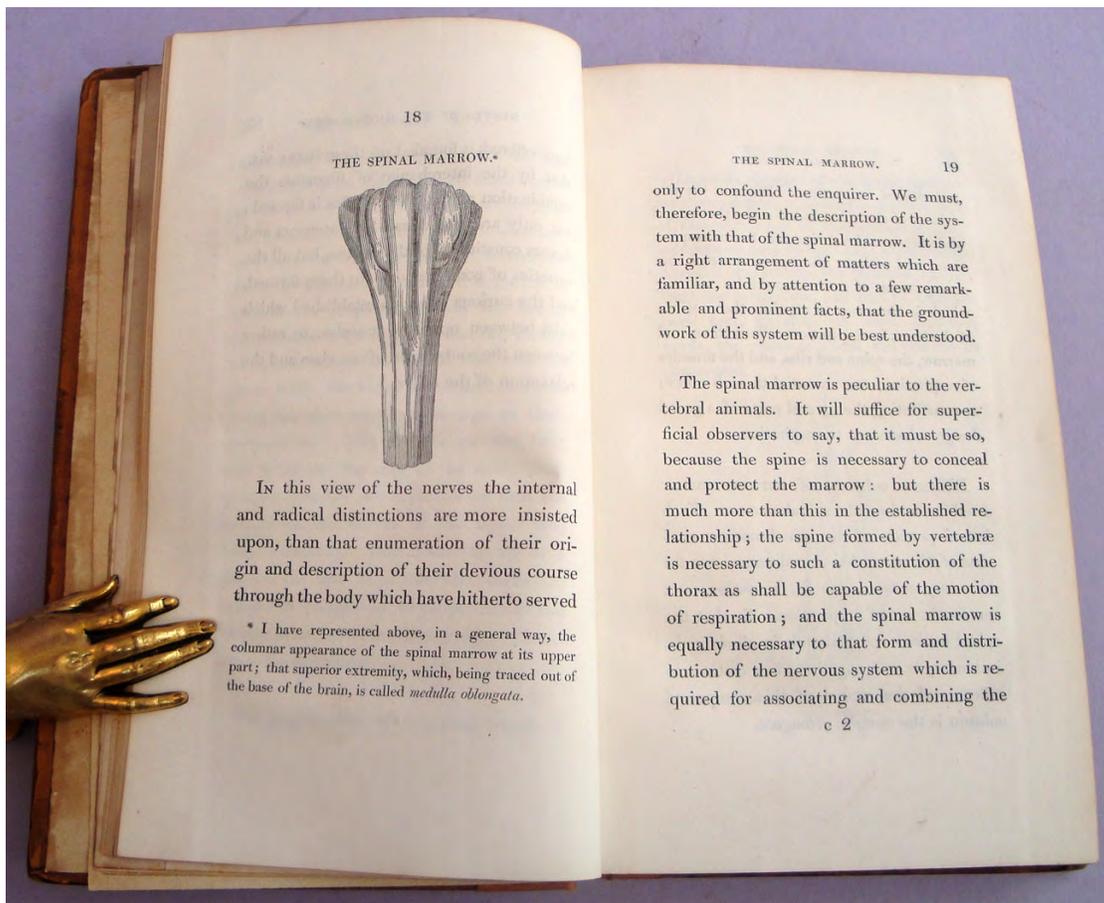
**First Edition**, preceding the journal printing, as indicated in the printed notice on the title verso. Bell's paper contains the first description of "Bell's Phenomenon," an upward and outward movement of the eye when an attempt is made to close the eyes; this is a normal defense mechanism present in about 75% of the population. A second part to Bell's paper (not present here) appeared later the same year, but this first part contains the complete description of "Bell's Phenomenon." Gordon-Taylor 20. 42565



**26.** Observations on injuries of the spine and of the thigh bone: In two lectures. . . . 4to. xv, 101, [3, including ads]pp. 9 lithographed plates after drawings by Bell. London: Thomas Tegg, 1824. 301 x 234 mm. Half morocco, marbled boards c. 1824, light wear. Minor foxing to plates, but very good. Library stamp on verso title and two or three other leaves. \$1500

**First Edition.** Bell took issue with Astley Cooper's *Treatise on Dislocations and on Fractures of the Joints*, claiming it to be full of omissions and errors. He also defended his brother John Bell's priority in describing fractures of the neck of the thighbone. Gordon-Taylor 22. 42561





**27.** An exposition of the natural system of the nerves of the human body. With a republication of the papers delivered to the Royal Society, on the subject of the nerves. 8vo. vii, 392pp. 3 folding plates, text illustrations. London: A. & R. Spottiswoode, 1824. 213 x 132 mm. Calf c. 1824, rebacked, endpapers renewed, some edgewear. Very good. Bookplate. \$1750

**First Edition.** Includes the first edition in book form of Bell's papers on the nervous system published in the *Philosophical Transactions* between 1821-1823, including his classic paper "On the nerves" (1821), which gave the first description of "Bell's nerve" (the long thoracic) and "Bell's palsy," the facial paralysis ensuing upon lesion of the motor nerve of the face. The remaining papers are "On the nerves which associate the muscles of the chest" (1822) and the two-part "On the motions of the eye, in illustration of the uses of the muscles and nerves of the orbit" (1823). Bell altered the book-form versions of these papers to make it seem as if he had fully anticipated the findings of Herbert Mayo and François Magendie on the separate functions of the anterior (motor) and posterior (sensory) nerve roots. See Garrison-Morton 1255. Gordon-Taylor 23. Cranefield, pp. 16-17. 42556

**28.** Exposition du système naturel des nerfs du corps humain, suivi des mémoires sur le même sujet . . . Traduit de l'anglais par J. Genest. 8vo. xii, 270, [2]pp. 4 folding plates. Paris: J. S. Merlin, 1825. 220 x 137 mm. (uncut). Quarter morocco, marbled boards in period style. Minor foxing and toning, but very good. From the library of French physiologist **Charles-Émile François-Franck** (1849-1921), with his donation stamp on the title; library stamps of the Collège de France also present on title. \$950

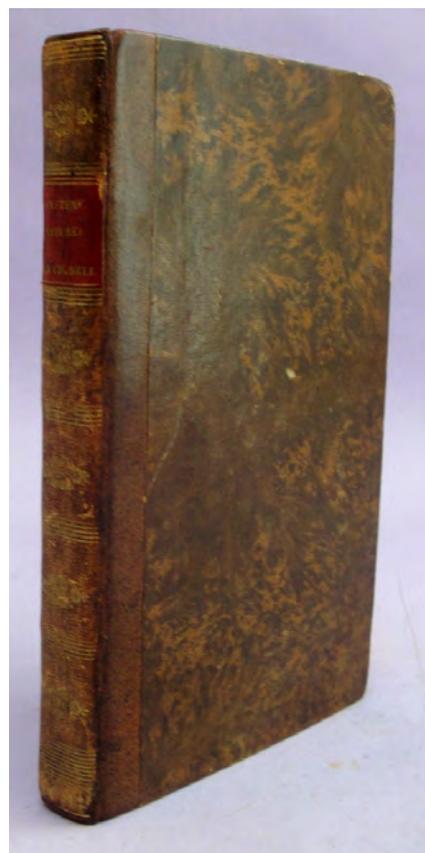
**First Edition in French**, containing “a new preface by the translator and a new preface by Bell” (Cranefield, p. 17). This copy was once owned by Charles-Émile François-Franck, who succeeded E. J. Marey in the chair of physiology at the Collège de France. He is best known for his studies on the excitability of the cerebral cortex and localization of function (see Garrison-Morton 1417), his experimental valvulotomy of the heart (see Garrison-Morton 3022.1), and his film motion studies conducted while serving as Marey’s assistant in the Collège’s laboratory of pathologic physiology. 378

**29.** Exposition du système naturel des nerfs du corps humain, suivi des mémoires sur le même sujet . . . Traduit de l'anglais par J. Genest. 8vo. xii, 270, [2]pp. 4 folding plates. Paris: J. S. Merlin, 1825. 211 x 124 mm. Quarter calf, marbled boards c. 1825, rebacked preserving original gilt spine. Very good. From the library of **Charles Richet** (1850-1935), winner of the 1913 Nobel Prize in Physiology or Medicine for his work on anaphylaxis, with his signature on the front free endpaper and marginal notes probably his. \$950

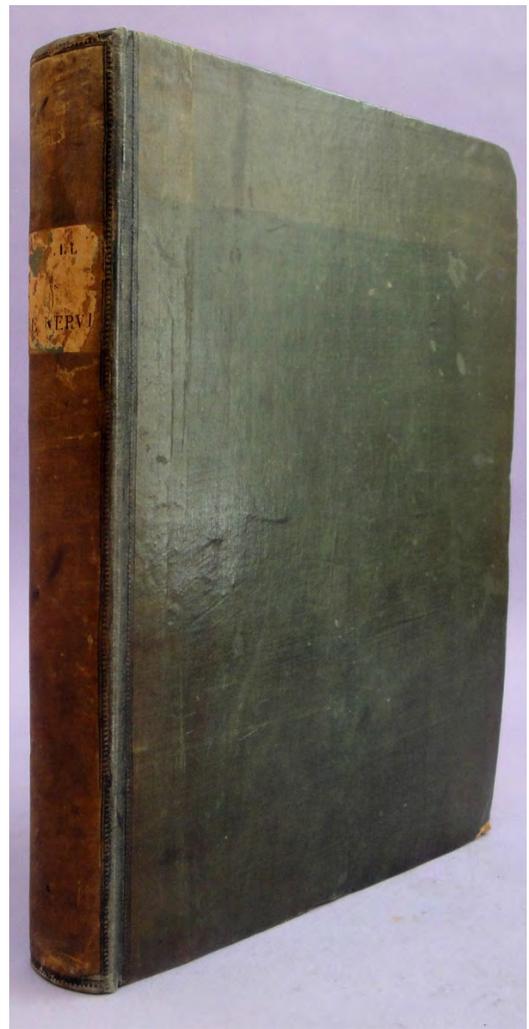
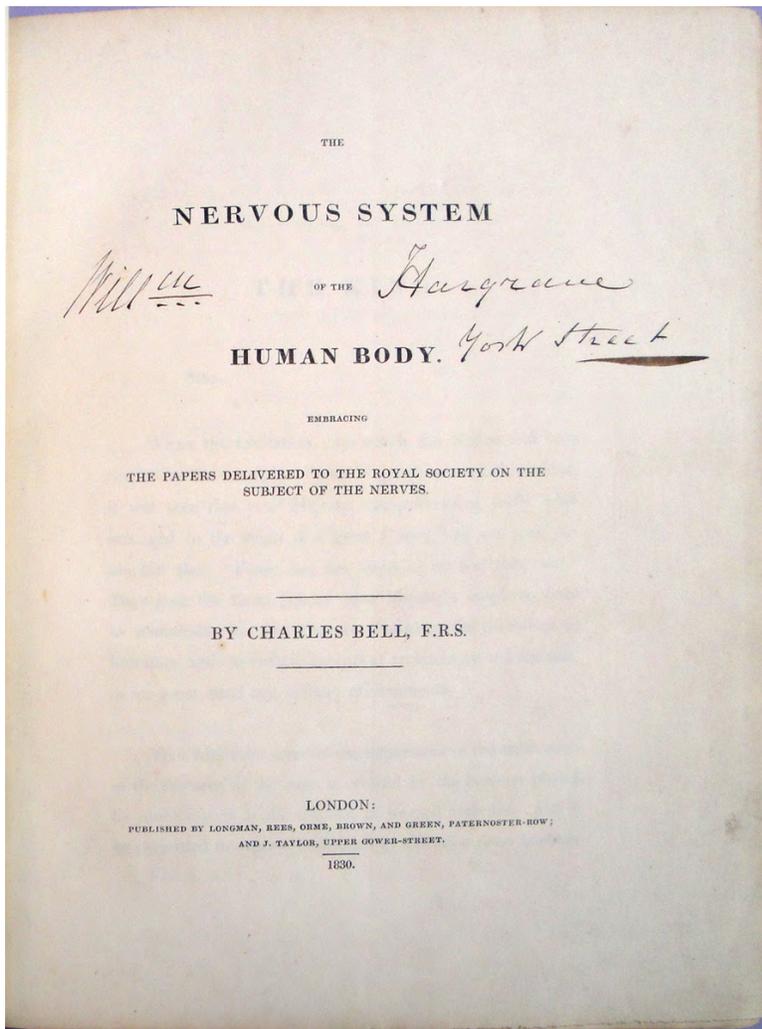
**First Edition in French.** 42553

**30.** Exposition du système naturel des nerfs du corps humain . . . Another copy, bound with **Tiedemann, Friedrich** (1781-1861). Anatomie du cerveau contenant l’histoire de son développement dans le foetus . . . [4], liii, 325pp. 14 plates. Paris: Baillièrè, 1823. 196 x 128 mm. 19<sup>th</sup> century quarter sheep, marbled boards, spine worn. Minor foxing, some tears in folding plates, but very good. \$450

**First Edition in French** of both works. 22293



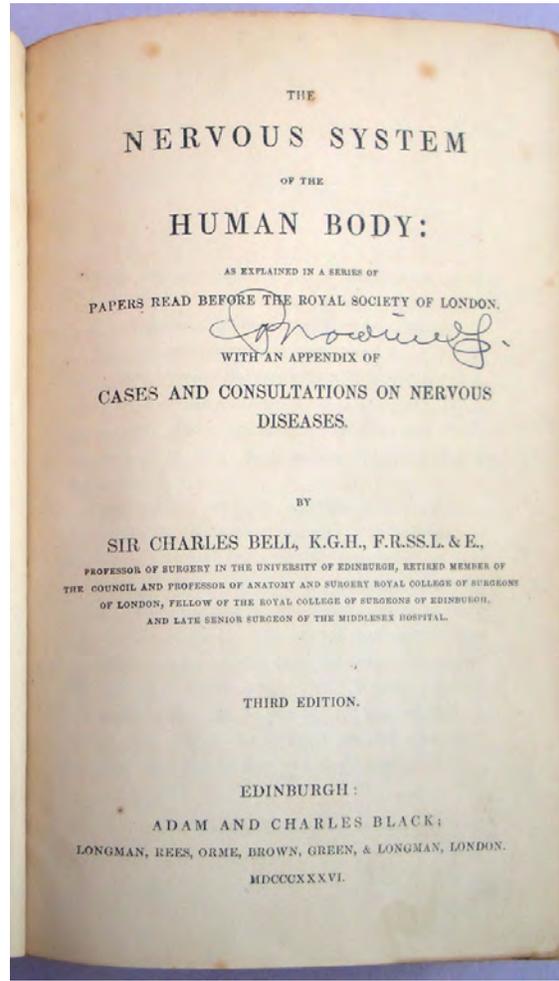
No. 29



**31.** The nervous system of the human body. Embracing the papers delivered to the Royal Society on the subject of the nerves. London: Longman, Rees, Orme, Brown and Green; J. Taylor, 1830. 288 x 221 mm. (uncut). Original cloth, rebacked preserving original spine with paper label (worn), corners a bit worn. Scattered fox-marks, but very good. 19th century ownership inscription. Bookplate. \$2750

Enlarged second edition of Bell's *Exposition of the Natural System of the Nerves of the Human Body*. "This book, which has rightly been hailed as a medical classic, contained not only [Bell's] earlier papers (with modifications) but also an appendix of case histories in illustration of the principles which guided him in diagnosis and treatment. . . . With its appearance the newer conception of nerve function, which had been making some headway, received general acceptance" (Gordon-Taylor, p. 134). The second edition added two more papers published in the *Philosophical Transactions*, "On the nervous system which connects the voluntary muscles with the brain" (1826) and "On the nerves of the face" (1829), containing a more detailed account of Bell's palsy. Bell Garrison-Morton 1258. Gordon-Taylor 23. McHenry, p. 188. Norman 174. 42563

**32.** Physiologische und pathologische Untersuchungen des Nervensystems. Aus dem Englischen übersetzt von Moritz Heinrich Romberg. 8vo. xxx, 388, [4]pp. 6 lithographed plates. Berlin: Stuhrschen Buchhandlung, 1836. 198 x 119 mm. Original paste paper boards, gilt-lettered spine label, hinges worn. Very good copy. Ink and embossed ownership stamps of Dr. Wilhelm Ebstein (1836-1912) on the title. \$500



Second edition in German. Includes an essay by Johann Mueller explaining Magendie's experimental work and giving Magendie credit for defining the distinct roles of the dorsal and ventral spinal nerves. The translator of this work, Moritz Romberg, was the founder of clinical neurology in Germany and the author of the first formal treatise on diseases of the nerves (see Garrison-Morton 4528). This copy is from the library of Romberg's pupil Wilhelm Ebstein. Ebstein was professor of medicine and director of the medical clinic at Göttingen and made important contributions to the study of disease; see Garrison-Morton 2764.1, 3771 ("Pel-Ebstein disease"), 3944, 4502. 42570

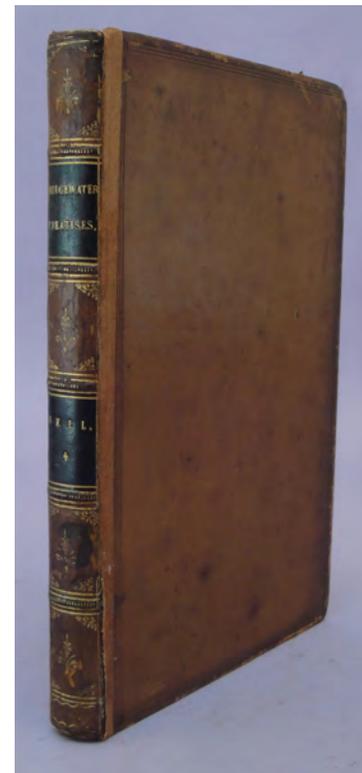
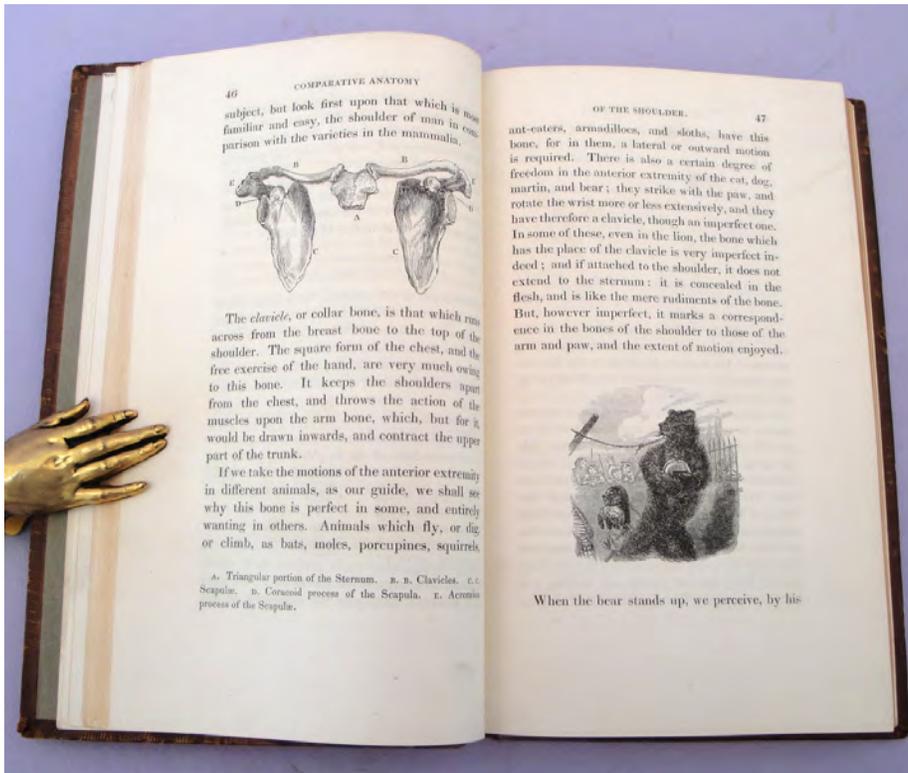
**33.** The nervous system of the human body: As explained in a series of papers read before the Royal Society of London. With an appendix of cases and consultations on nervous diseases. [4], xvi, 536pp. 16 engraved plates after Bell's drawings. Edinburgh: Adam and Charles Black; London: Longman . . . , 1836 [i.e., London: Renshaw, 1844]. 217 x 134 mm. 19<sup>th</sup> century marbled boards, rebacked and recorned in calf, spine faded, light rubbing. Edges a bit foxed, front endpaper and flyleaf a little chipped, but very good. Engraved armorial bookplate of Lord Farnham (probably Henry Maxwell, 7th Baron Farnham ([1799-1868], Irish peer and Member of Parliament). Bookplate. \$750

"Third edition." Adam and Charles Black's "third edition" of Bell's *Nervous System* appeared in 1836; it was followed by Renshaw's "third edition" in 1844. Our copy appears to be the Renshaw edition with the Black title-leaf (the Renshaw edition may possibly be a reissue of the Black sheets with additional material). The Renshaw edition was the first to add the three papers on the nerves of the encephalon originally read before the Royal Society of Edinburgh in 1838. These papers were published separately that year and also appeared in the *Transactions of the Royal Society of Edinburgh* for 1839. Gordon-Taylor 23. 42572



**34.** On the nerves of the face; being a second paper on that subject. In *Philosophical Transactions* 119 (1829): 317-30.; 2 plates. Whole number, 4to. 301 x 235 mm. (uncut). Original plain wrappers, spine lacking. Minor staining in lower margins, but very good. \$375

**First Edition.** A follow-up to Bell's 1821 paper "On the nerves," containing a more detailed description of Bell's palsy than that found in the earlier paper. Reprinted in *The Nervous System of the Human Body* (1830). See Garrison-Morton 4520. 42568



## Bell on the Hand

- 35.** The hand, its mechanism and vital endowments as evincing design. 8vo. xv, [1], 288pp. Text illustrations after the author's drawings. London: Pickering, 1833. 215 x 135 mm. 19th cent. half calf, rubbed. Minor foxing, but very good. 19th century bookplate. \$850

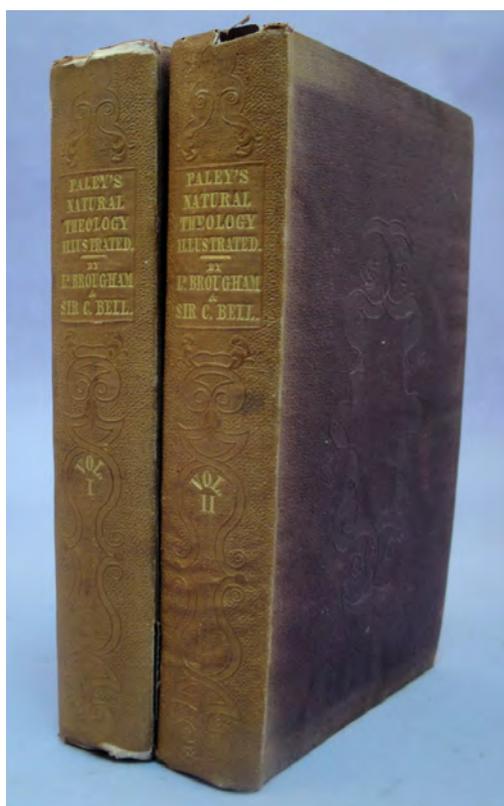
**First Edition** of one of the great classics on the hand, touching on the hand's anatomy, physiology, bio-mechanics, comparative anatomy, sense of touch, kinesthetics, adaptive importance, etc. "In this work, Bell compared the upper extremity of man to that of the animals, and he graphically described and illustrated the principles of anatomy as related to function. [The book] is beautifully written and well worth being used as an introductory book for young residents in reconstructive surgery" (Boyes, *On the Shoulders of Giants*, p. 29; also 28-30). The book was the fourth of the famous Bridgewater Treatises, and went through many editions. Gordon-Taylor 56. 34696

- 36.** The hand, its mechanism and vital endowments as evincing design. 8vo. xv, [1], 288pp. Text illustrations after the author's drawings. London: Pickering, 1833. 219 x 134 mm. Calf ca. 1833, rebacked preserving original spine, endpapers renewed, light edgewear. Very good. Signature and bookplate of Russell Sturgis (1836-1909), prominent American architect and art critic and one of the founders of the Metropolitan Museum of Art in New York. \$850

**First Edition.** 42541

- 37.** The hand, its mechanism and vital endowments, as evincing design. xii [i.e., xiii], 213pp. Text illustrations. Philadelphia: Carey, Lea & Blanchard, 1833. 182 x 111 mm. Original cloth, spine faded, spine label worn, marginal dampstain on back cover. Light dampstain in upper margins, some foxing throughout, first signature starting but on the whole good to very good. \$200

**First American Edition.** 42575



No. 41

**38.** The hand, its mechanism and vital endowments as evincing design. 8vo. xvi, 314pp. Text illustrations. London: William Pickering, 1833. 214 x 134 mm. 19<sup>th</sup> century half calf, marbled boards, light wear. Some unobtrusive pencil-marks in margins, but very good. Engraved armorial bookplate of British traveler and eccentric John Talbot Clifton (1868–1927) of Kildalton. Bookplate. \$375

Second edition, enlarged. For Clifton see Carl Reavey, “Talbot Clifton Kildalton Castle.” Islay Weblog. 8 March 2009. Web. Accessed 29 June 2012. 42554

**39.** The hand its mechanism and vital endowments as evincing design. xvi, 348pp. 8-page publisher’s catalogue bound in the front. Text illustrations. London: Pickering, 1834. 222 x 139 mm. Original cloth, paper spine label (a bit worn), light wear to hinges, extremities and corners. Very good.

\$250

Third edition. 36036

**40.** The hand its mechanism and vital endowments as evincing design. xvi, 368pp. 8-page publisher’s catalogue bound in the front. Text illustrations. London: Pickering, 1837. 217 x 139 mm. Original pebbled cloth, paper spine label, spine a bit faded. Light toning but very good.

\$200

Fourth edition. 36037

**41.** Paley’s natural theology, with illustrative notes, by Henry Lord Brougham, F.R.S. . . . and Sir Charles Bell . . . to which are added supplementary dissertations by Sir Charles Bell. 2 vols. xv, 456; viii, 424pp. Text wood-engravings. London: Charles Knight, 1836 Original cloth, spines faded, light wear at extremities. Slight foxing, but very good. Engraved armorial bookplate of Benjamin Chapman.

\$200

**First Edition** of Bell and Brougham’s edition of Paley’s *Natural Theology*. Gordon-Taylor 65. 11929

Lord Belgray. very ill. bled three times - is he not 80?  
 John Cunningham I suppose Ainslie Place  
 succeeds? good fellow wretchedly  
 poor - Dear John.

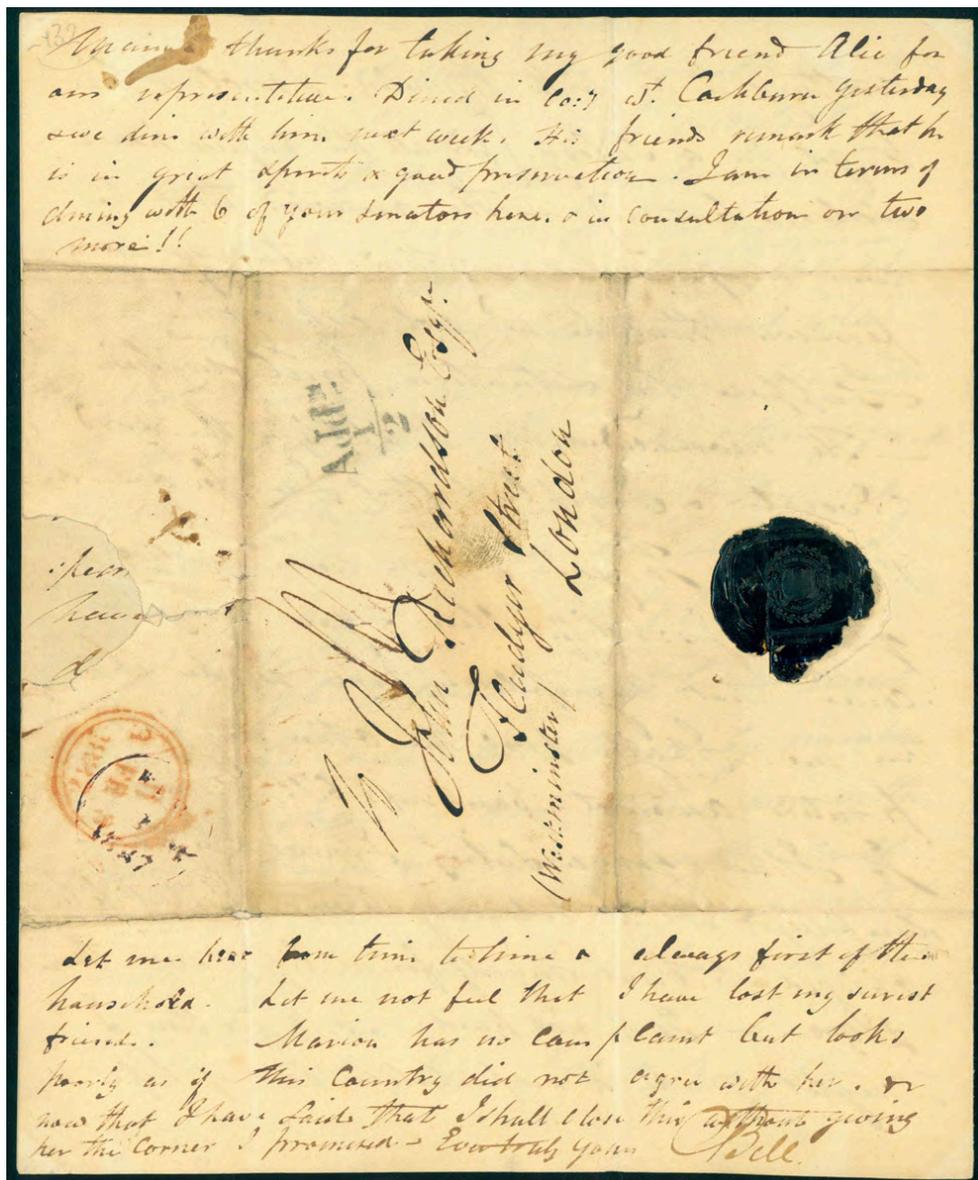
This is the end of the week  
 when my mind has some freedom, some rep.  
 relief from hourly duties, little present cares,  
 and when I can think of the inmates of  
 Gladys's street. Still I feel here as in a  
 dream. That awake I might walk down to  
 my friends in Westminster thro' y<sup>e</sup> park! -

The prevailing disease here is unobscured  
 when I read the English papers I feel much  
 an year account. I sorrowed for poor Middle.  
 fainting & felt for friend Hope, with her shaken  
 nerves. See many of your friends here  
 & are much more than a pleasant party.  
 but I have duty dinner also. generally of  
 the

### Extraordinarily Candid and Revealing Letter

**42.** Autograph letter signed to John Richardson (1780-1864). Ainslie Place [Edinburgh], February 3, 1837 [date from postmark]. 4pp., including address leaf. 229 x 189 mm. Marginal lacuna where seal was broken, affecting two words, small marginal tear in second leaf, minor soiling, but fine otherwise, and with Bell's wax seal intact. Complete transcription included. \$6000

An extraordinarily candid and revealing letter from surgeon and anatomist Charles Bell, whose pioneering experiments in neuroanatomy led to the discovery of the Bell-Magendie law (stating that the anterior branch of spinal nerve roots contain only motor fibers and the posterior roots contain only sensory fibers), as well as the first description of Bell's palsy (facial paralysis due to a lesion of the facial nerve).



Bell, a native of Edinburgh, received his medical degree from Edinburgh University in 1799 but spent most of his career in London, where he ran the Great Windmill Street School of Anatomy (established by William Hunter) and helped to found the Middlesex Hospital Medical School. In 1836 he returned to Scotland to take the position of professor of surgery at Edinburgh University. The present letter, sent about six months after Bell's departure from England, was written to John Richardson, one of Bell's oldest and closest friends, a lawyer who, like Bell himself, had left Scotland to seek his fortune in London. In the letter Bell spoke frankly about some of the difficulties he was experiencing in his new situation, including ongoing financial troubles and the inadequacies of his surgical colleagues. The overall tone of the letter is critical and somewhat depressed, which may be why it was not included in the *Letters of Sir Charles Bell* (1870).

The letter begins as follows:

Dear John, This is the end of the week when my mind has some freedom, some cessation from hourly duties, little present cares when I can think of the inmates of Fludger Street. Still I feel here as in a dream & that awake I might walk down to my friends in Westminster thro G. park!

The prevailing disease here is unabated & when I read the English papers I fear much on your

account. I sorrowed for poor Niddle [or Neddle] fainting & felt for friend Hope with her shaken nerves.

Fludyer Street in London, where Richardson and his family lived, had also been the site of Bell's first residence in that city; his biographer notes that "the walk from Fludyer Street to Piccadilly through St. James's and the Green Park was a favorite with Bell" (Gordon-Taylor, p. 16). The names mentioned in the second paragraph are most likely those of Richardson's children; the *Letters of Sir Charles Bell* includes a reference to Hope Richardson's wedding.

Bell then expresses his dissatisfaction with the state of surgical practice in Edinburgh:

. . . Indeed the practice here of surgery &c &c does not do—the errors I am forced to witness are painful. Tho the surgeons are well educated they want opportunities and when desperate cases, which are those I see, are under the family surgeon I have an office of great delicacy, both to do my duty & to save appearances—they want decision [i.e. lack decisiveness]—today I have seen a gentleman lost by five hours delay.

My class continues to be as much distinguished for order & attention as by members—would some of our chairs were better filled—Monro & Home are either careless or incapable. However all goes smoothly & really my hour from ten to eleven is the shortest & pleasantest in the day!

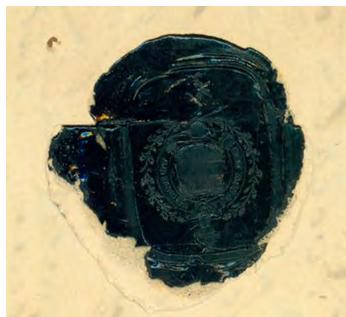
"Monro" refers to Alexander Monro *tertius* (1773–1859), who succeeded his grandfather and father as professor of anatomy at Edinburgh University. Monro's lack of ability as a teacher and administrator had led to a significant decline in enrollment at the university's medical school. We have not been able to identify "Home," but the reference cannot be to Sir Everard Home, who died in 1832.

In the next portion of the letter Bell discusses the worrying state of his finances. While in London Bell had been able to earn between £1,400 and £2,400 a year, but the professorship at Edinburgh paid only £400 annually and Bell spent the last six years of his life struggling to supplement this meager income. His anxieties over money are clearly expressed here:

Altho' I knew that Brougham has nothing to do with the Minister, I wrote to him to get me a salary (for all the rogues have salaries but me)—. He answered that he was so provoked at them refusing me a pension that he wd not ask again—. I suppose his situation precludes him. He recommended me to apply to the Lord Advocate & I replied that I wd. be d\_\_\_d [damned] first.

To you I have never made a [secret?] of Geo: Jos: difficulties & you might [per]ceive that my place here makes it rough on me. I paid £140 the other day for a printers account—bankrupt bill business. If I had got a salary I meant to have employed it in relieving him. I expect to be obliged to bind myself for no less a sum than £900. —Is it not hard. But for this I might make a respectable end of life.

Lord Brougham (Henry Peter Brougham, 1st Baron Brougham and Vaux [1778–1868]), another Edinburgh native, was a high-ranking British statesman who served as Lord Chancellor of England from 1830 to 1834. Brougham and Bell were old friends, and had collaborated on an annotated edition of William Paley's *Natural Theology*, published in 1836. Bell obviously hoped that Brougham would be able to pull some strings in his favor,



either to increase his salary or to obtain him a government pension; however, at the time this letter was written Brougham had been out of office for three years and his political influence was diminished.

In the following paragraph Bell refers to expenses incurred by his brother George Joseph (1770–1843) in connection with the elder Bell's work for the Scottish government. In 1833 George Joseph had been made head of a royal commission to inquire into Scottish bankruptcy law, and it was he who was largely responsible for writing and issuing the commission's reports. It is evident from Charles Bell's letter that the commissioners were expected to pay their own printing costs for "bankrupt bill business," and that George Joseph was unable to do this without his brother's help.

In the remainder of the letter Bell mentions more old friends: his brother-in-law and former pupil Alexander ("Alic") Shaw (1804–90), a surgeon at Middlesex Hospital and author of *An Account of Sir Charles Bell's Discoveries in the Nervous System* (1860); and Henry Thomas Cockburn (1779–1854), a Scottish judge and one of the leaders of Scotland's Whig party. He ends the letter with these poignant words:

Let me hear from time to time & always first of the household. Let me not feel that I have lost my surest friends. Marion [Bell's wife] has no complaint but looks poorly as if this country did not agree with her & now that I have said that I shall close this without giving her the corner I promised [i.e., a corner of a sheet of this letter paper to write a personal note to Richardson]. Very truly yours, C Bell.

Gordon-Taylor, *Sir Charles Bell: His Life and Times. Dictionary of National Biography*. 40980

**43.** Institutes of surgery: Arranged in the order of the lectures delivered in the University of Edinburgh. 2 vols., 8vo. xxiv, [2], 353, [3, incl. adverts.]; ix, 380pp. Edinburgh: Adam & Charles Black; London: Longman, Orme, Brown, Green & Longmans, 1838. 205 x 122 mm. Original cloth, rebaked preserving original spines with printed labels, corners a bit worn. Very good. Bookplates \$600

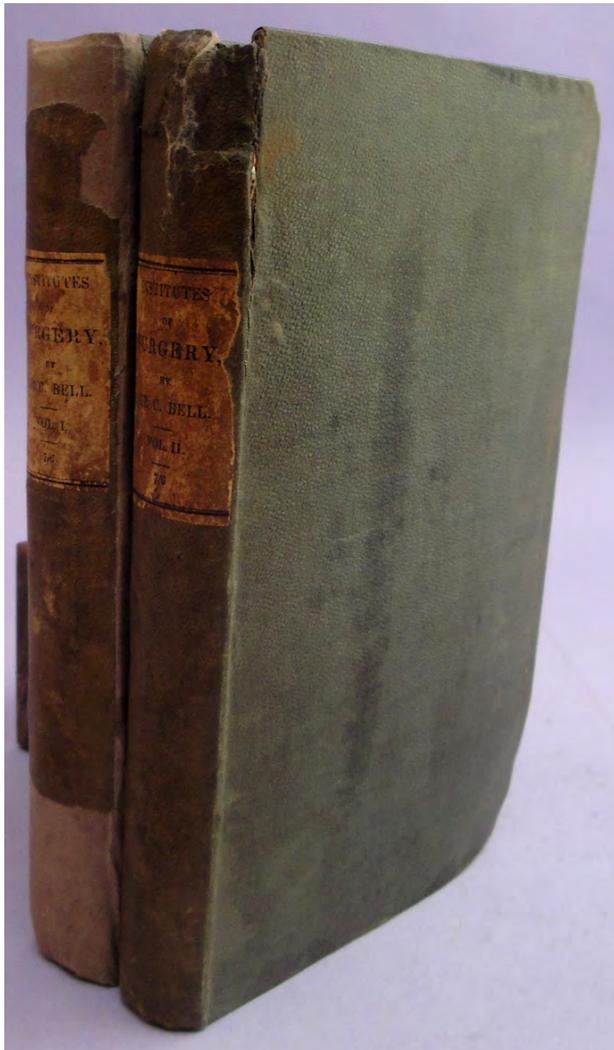
**First Edition.** Gordon-Taylor 67. *Heirs of Hippocrates* 1310. 42555

**44.** Grundlehren der Chirurgie. Translated by Dr. C. A. Mörer; foreword by Carl von Graefe 2 vols. in 1. xvi, 335; viii, 318pp. Berlin: F. A. Herbig, 1838. 194 x 117 mm. Original paste paper boards, gilt-lettered label, corners and extremities worn. First and last leaves a bit foxed, but very good. \$500

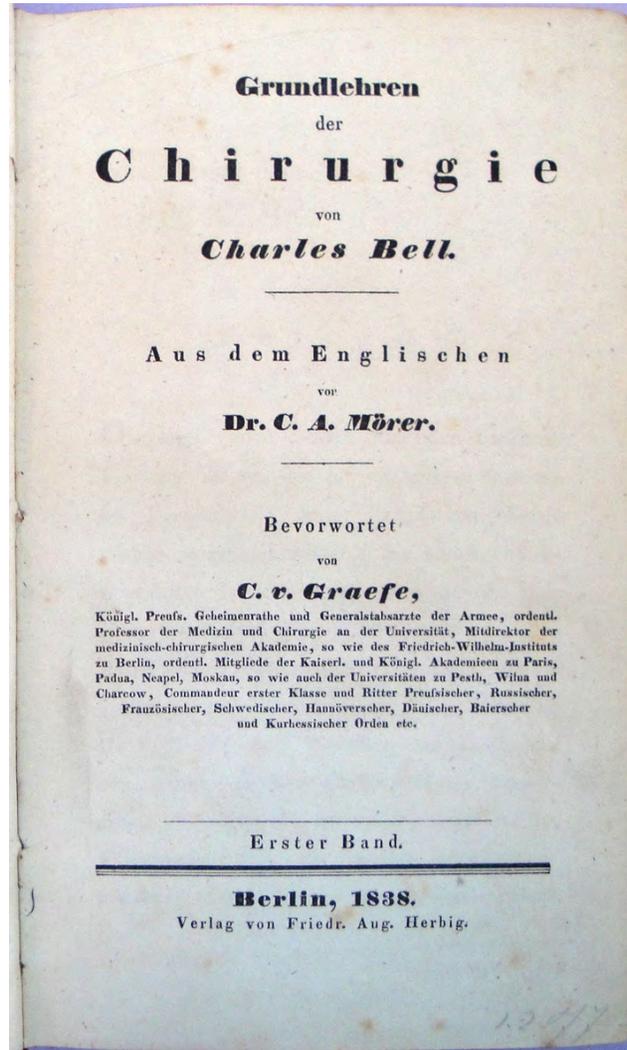
**First Edition in German** of Bell's *Institutes of Surgery*. Not in Gordon-Taylor. 34448

**45.** (1) Of the third pair of nerves, being the first of a series of papers in explanation of the difference in the origins of the nerves of the encephalon, as compared with those which arise from the spinal marrow. (2) Of the origin and compound functions of the facial nerve, or portio dura of the seventh nerve;—being the second paper . . . (3) Of the fourth and sixth nerves of the brain;—being the concluding paper . . . In *Transactions of the Royal Society of Edinburgh* 14 (1839): 224–228; 229–236; 237–241. Engraved plate (no. XIV) after drawing by Bell. Whole volume, 4to. 283 x 223 mm. (uncut). Later cloth, original cloth sides laid down, new leather spine label (faded). Very good. \$500

**First Editions in Journal Form.** The three papers were issued in a single pamphlet prior to their appearance in the *Transactions*. Gordon-Taylor 66. 42564



No. 43



No. 44

**46.** The organs of the senses familiarly described . . . viii, 85pp. 20 hand-colored lithographed plates. London: Harvey & Co., n.d. [ca. 1840]. 172 x 106 mm. Original cloth, a bit worn, spine repaired. Light foxing and toning but very good. \$450

**First Edition?** Possibly not by Bell, who was always referred to as “Sir Charles” on the titles of his works after 1831; the title of this work refers to him simply as “Charles Bell.” Another edition, titled *A Familiar Treatise of the Five Senses*, was published in 1841. Gordon-Taylor 69. 42571

**47.** Practical essays. vi, [2], 104pp. Text illustrations. Edinburgh: Maclachlan, Stewart & Co., 1841. 224 x 143 mm. Original cloth, needs rebinding, sold as is. First and last leaves a bit foxed, light toning. Publisher’s adverts. tipped to front pastedown. \$200

**First Edition.** A second volume was published in 1842. Gordon-Taylor 68. 42573



*Image from Science Photo Library*

### *François Magendie (1783-1855)*

Magendie is regarded as one of the founders of experimental physiology; he also made fundamental contributions to pharmacology and pathology. Rejecting the inexact and overly speculative biological theories of his time, Magendie devoted himself to the discovery of verifiable physiological facts by means of experiment. It was Magendie's view that physiology "should explain the two phenomena essential to life—nutrition and movement—through reducing them to the organization of living beings and of their parts" (*Dictionary of Scientific Biography*). His work greatly influenced the transformation of physiology into an experimental and investigative science.

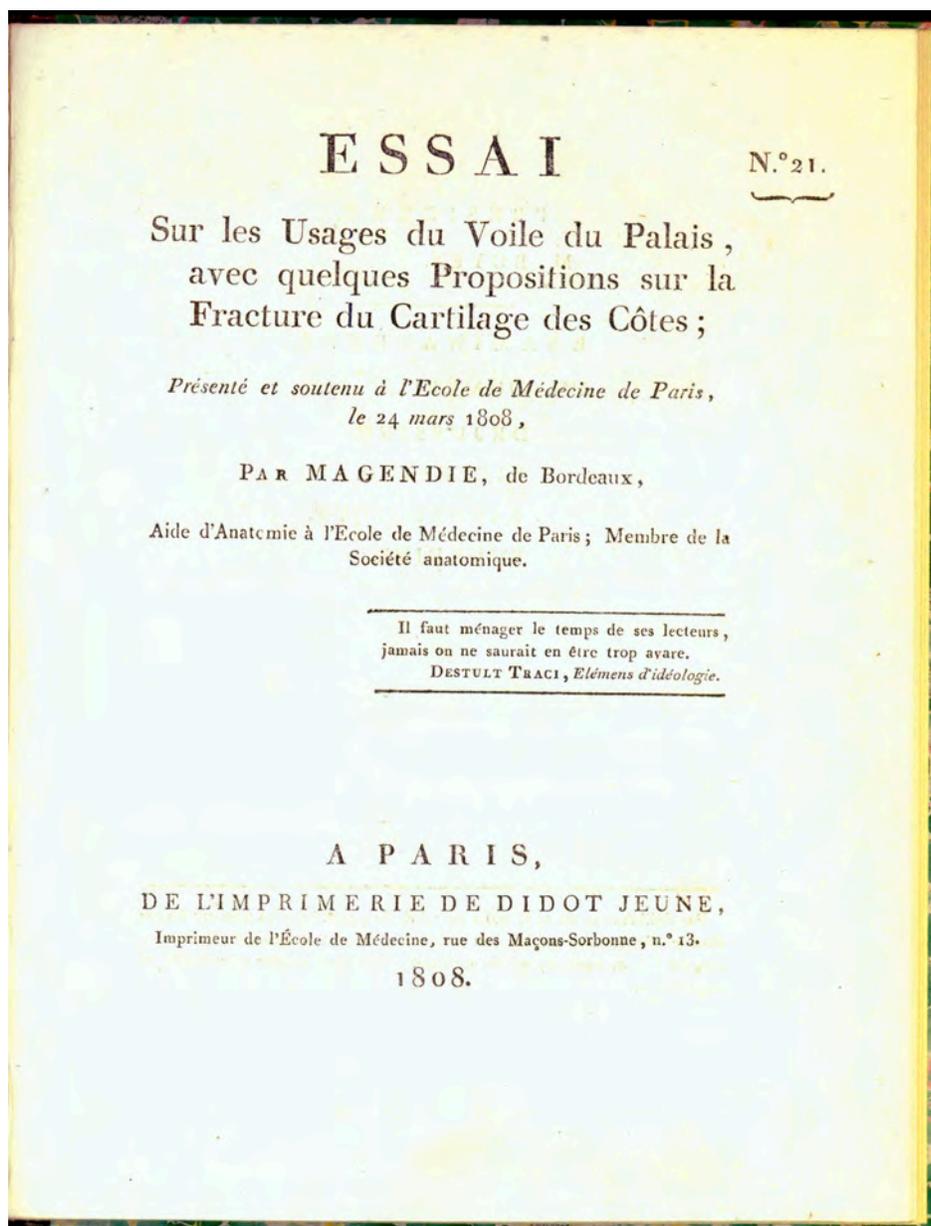
Magendie received his medical degree in 1808 with a dissertation on "The uses of the soft palate, with some remarks on the fracture of the cartilage of the ribs." In 1811 he was appointed anatomy demonstrator at the Faculté de Médecine in Paris, but resigned this post two years later to devote himself to experimental physiology. Between 1813 and 1821 Magendie made a number of important physiological discoveries,

including proof of the passive role of the stomach in vomiting; explanation of the mechanism of swallowing; experiments on feeding with nonnitrogenous substances, which demonstrated the mammalian need for protein and also produced the first experimentally generated case of an avitaminosis; proof of the liver's key role in detoxification; clarification of the mechanism of absorption; and experiments on the digestive properties of pancreatic juice. During this period he also published his landmark *Précis élémentaire de physiologie* (1816–1817) and investigated the actions of several vegetable poisons. His toxicological researches mark the beginning of modern pharmacology.

In 1821 Magendie founded the *Journal de physiologie expérimentale*, the first periodical devoted exclusively to physiology. The following year he published in the *Journal* his discovery of the discrete functions of the dorsal and ventral spinal nerve roots (the Bell-Magendie law). Of the controversy between him and Charles Bell over who had played what part in the discovery, Magendie wrote the following:

Charles Bell had had, before me, but unknown to me, the idea of separately cutting the spinal roots; he likewise discovered that the anterior influences muscular contractility more than the posterior does. This is a question of priority in which I have, from the beginning, honored him. Now, as for having established that these roots have distinct properties, distinct functions, that the anterior ones control movement, and the posterior ones sensation, this discovery belongs to me (quoted in *Dictionary of Scientific Biography*).

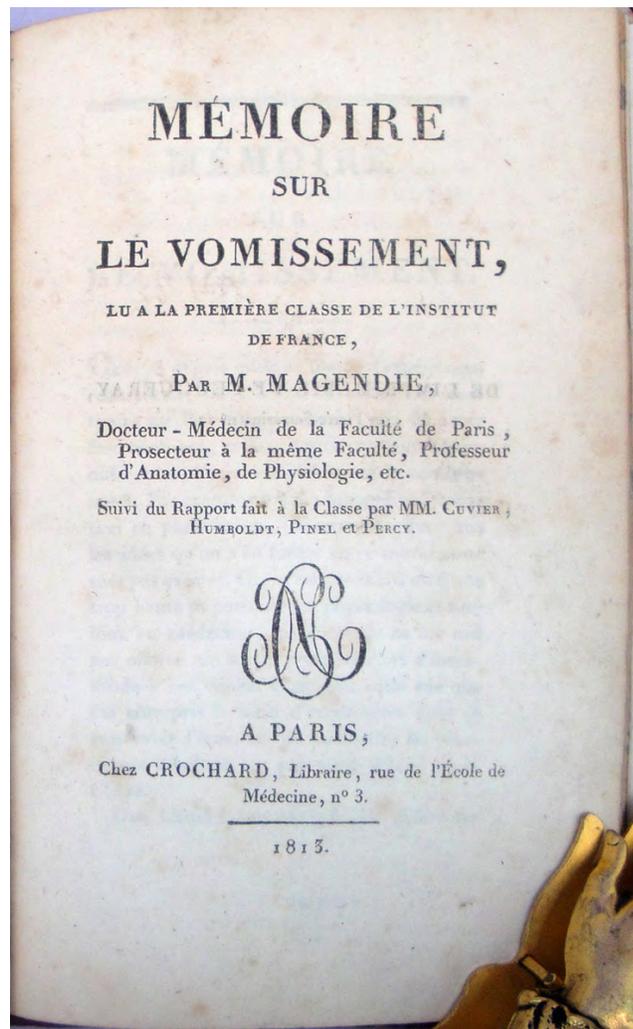
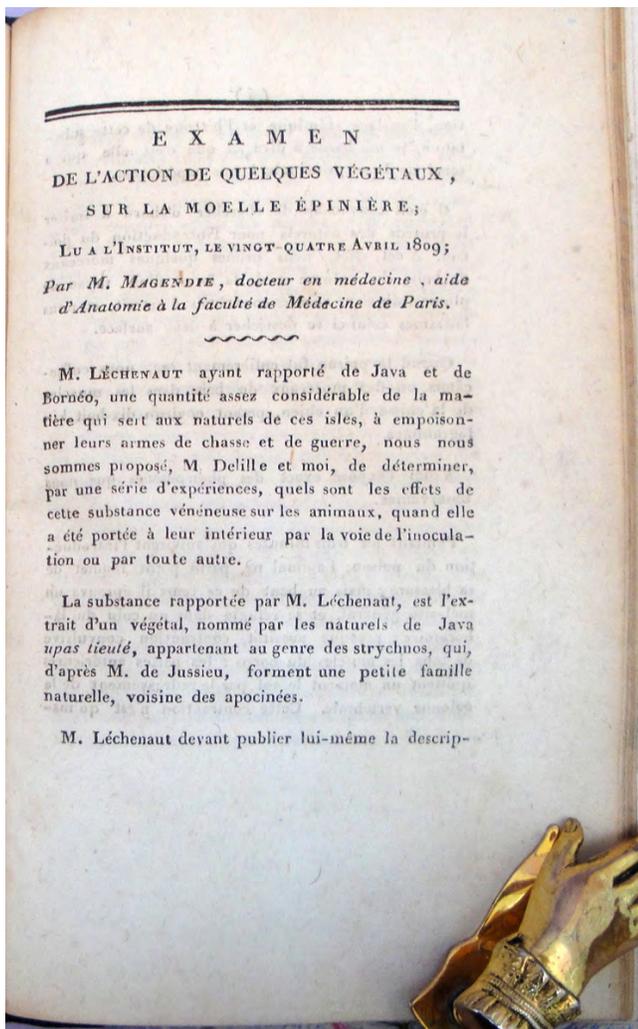
Magendie's later physiological investigations yielded important discoveries concerning the cerebrospinal fluid, the dynamics of the circulation of the blood, and nutrition. His experiments on glycemia (the presence of sugar in the blood) provided his disciple Claude Bernard with the starting point for the research that culminated in Bernard's landmark discovery of the glycogenic function of the liver.



48. Essai sur les usages du voile du palais, avec quelques propositions sur la fracture du cartilage des côtes. . . . 4to. 19, [1]pp. Paris: Didot jeune, 1808. 245 x 187 mm. Modern quarter morocco, marbled boards. Fine copy. \$1500

**First Edition.** Magendie's rare first publication—his medical thesis on the function of the velum (soft palate). Magendie considered the velum from a physiological standpoint, examining its movements during respiration, different types of vocalization, swallowing, etc. 528

49. (1) Examen de l'action de quelques végétaux, sur la moelle épinière . . . [3]- Offprint from *Bulletin du Société philomathique* 1 (1809). 22pp. (2) Expériences pour servir à l'histoire de la transpiration pulmonaire. Offprint from *Bulletin du Société philomathique* 2 (1811). 3-20pp. (3) Mémoire sur les organes de l'absorption chez les mammifères. Offprint from *Bulletin du Société philomathique* (1809). 16pp. Together 3 works in 1, 8vo. 204 x 125 mm. Quarter morocco, marbled boards in period style. Light toning, otherwise fine. \$1000

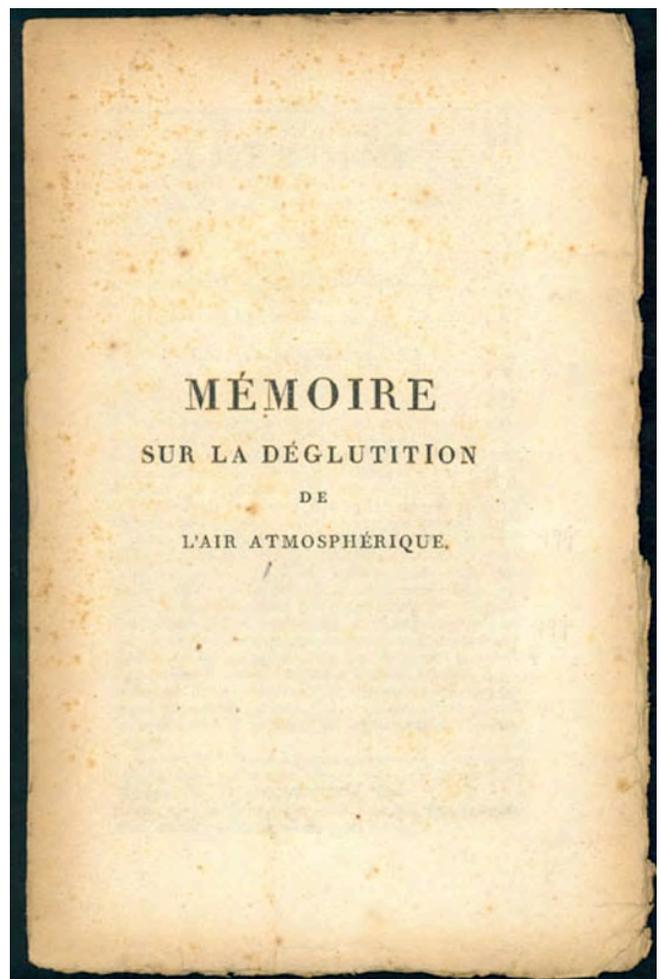
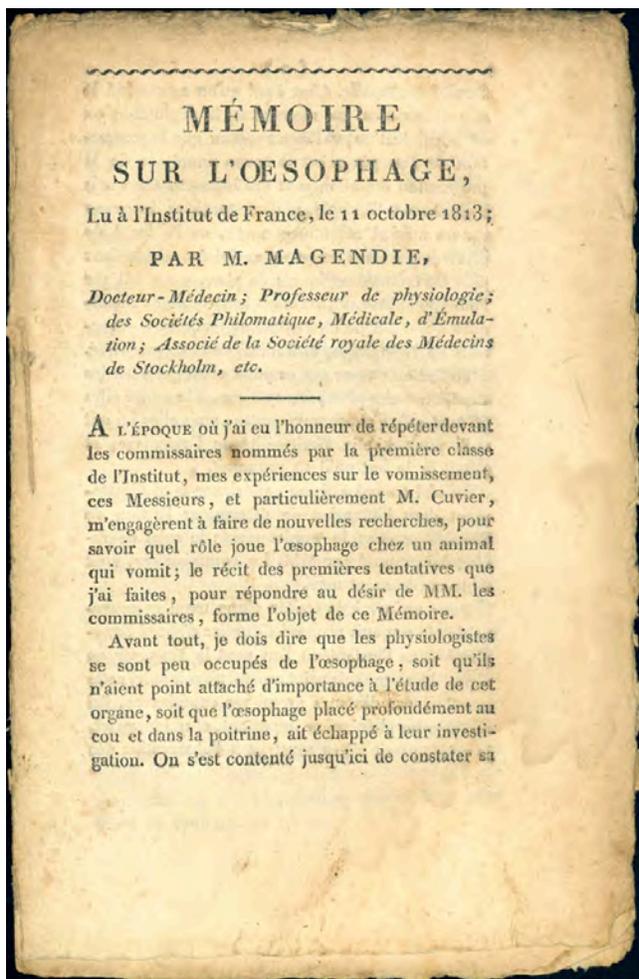


**First Separate Editions.** Extremely rare offprints of some of Magendie's first experimental papers. The first paper, which marks the foundation of experimental pharmacology, describes the effects on the spinal cord of the Javanese plant "upas tieute" (of the strychnos group); the third examines the absorption of poisons in mammals. They represent the first records of attempts to administer chemical substances to living organisms in a systematic way so that the effects of similar chemical agents from different sources may be compared. Magendie reprinted the "Mémoire sur les organes de l'absorption" in the first volume of his *Journal de physiologie expérimentale* (1821), noting that he had found nothing to alter in it even after the passage of eleven years since its first publication. The second paper is Magendie's memoir on the loss of water from the lungs. Olmsted, *Magendie*, pp. 35-47; he does not cite these offprints in his bibliography, and notes only the 1821 reprint of the "Mémoire." 13355

**50.** (1) Mémoires sur le vomissement. . . [2], 48pp. (2) De l'influence de l'émétique sur l'homme et les animaux. . . 62pp. 2 items in 1, 8vo. Paris: Crochard, 1813. 203 x 125 mm. Quarter morocco, marbled boards in period style. Light toning and foxing, otherwise fine. \$1000

**First Separate Editions.** No. (1) is the very rare offprint of Magendie's classic description of the physiology of vomiting (G-M 985), still consulted by modern physiologists and mentioned in modern textbooks. No. (2) is the equally rare offprint of Magendie's report on his continuing experiments with emetics. Magendie proved, against the then-current theory of Haller, that the stomach was passive, not active, in vomiting. This is essentially correct; however, Magendie failed to observe the active role of the pyloric end of the stomach in his account. Olmsted, *Magendie*, pp. 51-53; he does not cite these offprints in his bibliography.

13354

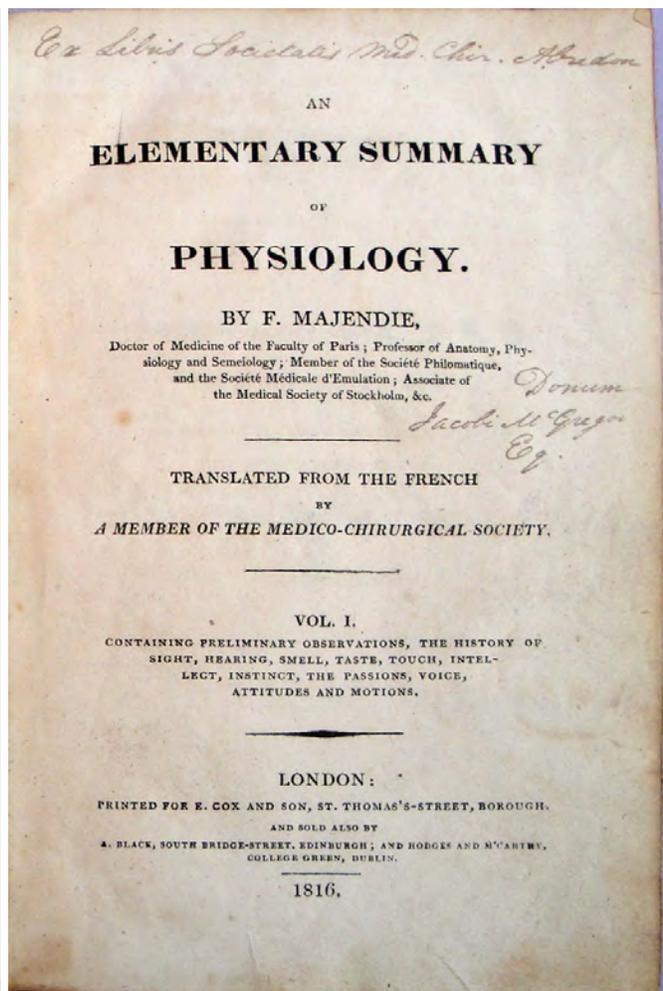
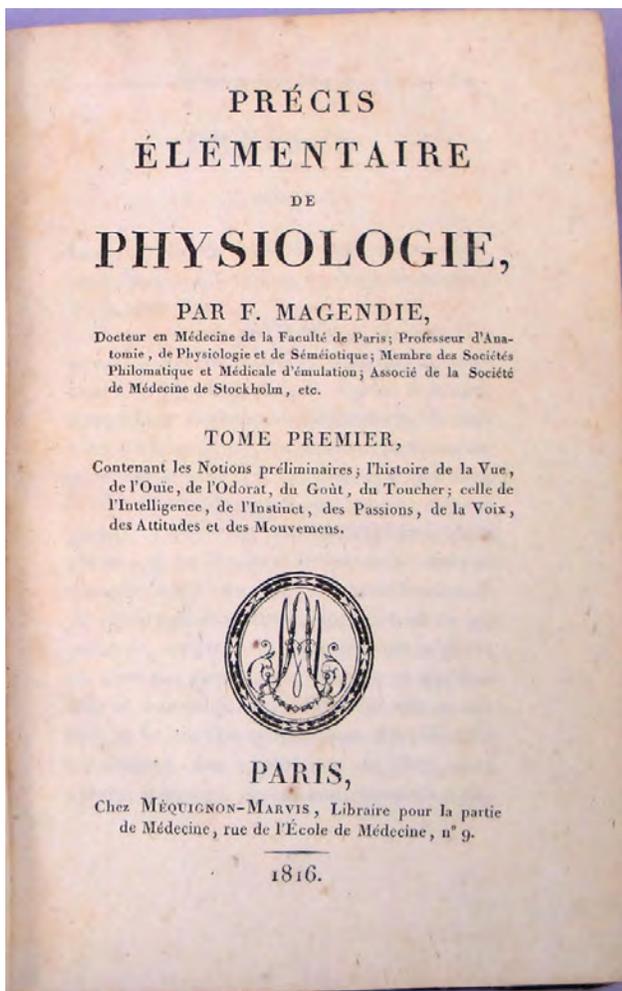


- 51.** Mémoire sur l'oesophage. Lu à l'Institut de France, le 11 octobre 1813. 8vo. 11pp. [Paris:] Plassan, 1813. 215 x 137 mm. Unbound. Minor soiling, spine partly split, but very good. \$500

**Probably the First Separate Edition** of Magendie's memoir on the esophagus published in the *Procès-verbaux de l'Académie des sciences* 5 (1813). "Magendie attempted to show the falsity of the current belief that the esophagus was a uniform muscular tube . . . The new facts which he brought forward were that while the upper half of this organ appeared to contract after the manner of voluntary muscle, the lower half exhibited peristaltic movements under control of the vagus nerve" (Olmsted, p. 54). Olmsted does not cite this separate edition in his bibliography of Magendie's works. 11397

- 52.** Mémoire sur la déglutition de l'air atmosphérique. Lu à l'Institut, le 25 octobre 1813. 8vo. 12pp. [Paris:] Migneret, n.d. Unbound. 213 x 137 mm. Minor foxing and toning but very good. \$500

**Probably the First Separate Edition.** Olmsted does not record this work, citing only Magendie's additional notes on swallowing air published in 1815. This paper forms part of Magendie's study of the mechanics of vomiting: "He was correct in assuming the essential passivity of the stomach during vomiting and the swallowing of air as its inevitable accompaniment" (Olmsted, p. 55). 11398

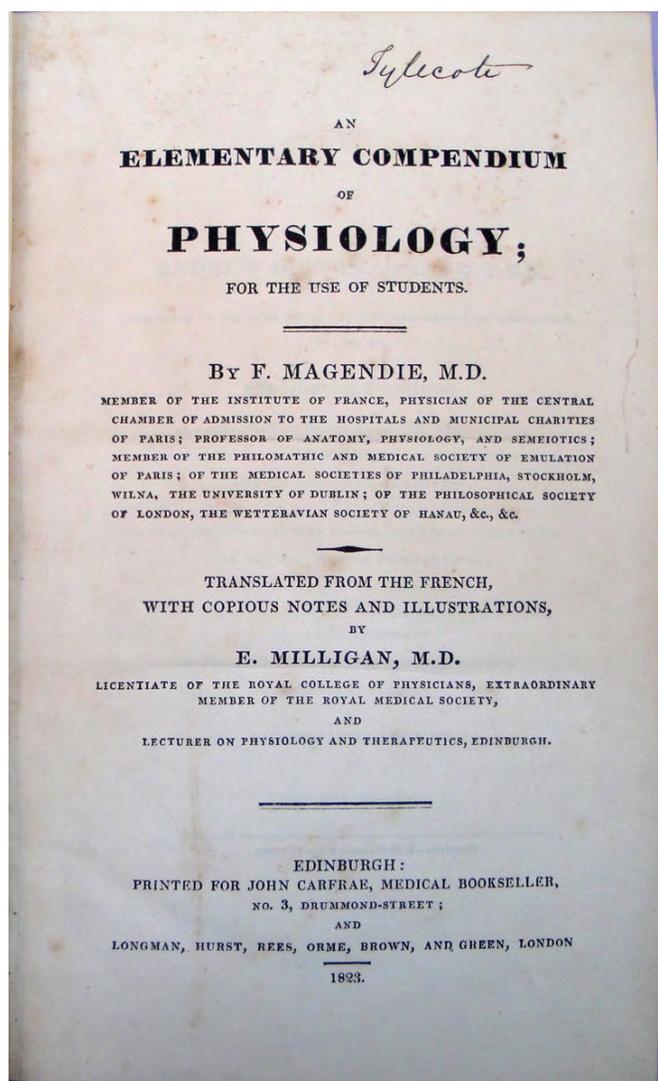


### *First Modern Physiology Textbook*

**53.** Précis élémentaire de physiologie. 2 vols., 8vo. [4], 326; [4], 473 [i.e., 475]pp. Paris: Méquignon-Marvis, 1816-1817. 201 x 129 mm. Quarter calf gilt, boards ca. 1817, a little rubbed, light edgewear. Scattered foxing, but very good. Bookplate. \$1200

**First Edition** of “The first modern physiology textbook” (Garrison-Morton). Rejecting the excessive speculation and philosophizing that characterized the late eighteenth-century approach to physiology, Magendie devoted his career to the discovery and collection of physiological facts, and exerted strong influence in orienting the discipline toward experimental investigation. His “new physiology,” which he taught in a series of private courses, led him to write the *Précis*, a new type of physiological textbook in which doctrine and deductions founded upon anatomy were replaced with simple and precise descriptions of experimental facts. Volume II contains Magendie’s description of the importance of protein (nitrogenous substances) in the food supply of mammals; in his experiments on dogs given non-nitrogenous foods, Magendie induced the first experimental cases of an avitaminosis (specifically, lack of vitamin A). Garrison-Morton 597.1. Norman 1416. Olmsted, *Magendie*, pp. 66-69. 42537

**54.** An elementary summary of physiology . . . Translated from the French by a member of the Medico-Chirurgical Society [i.e., J. S. Forsyth]. Vol. I (only). x, [2], 211pp. London: E. Cox and Son . . . , 1816. 213 x 132 mm. Half calf c. 1816, hinges in need of repair, light wear; sold as is. Light spotting but



very good. From the library of the Medico-Chirurgical Society of Aberdeen, with inscription to that effect on title and library stamp on the last leaf. "Donum Jacobi McGregor Equitis" inscribed on front free endpaper and title; a few manuscript notes throughout. Bookplate. \$600

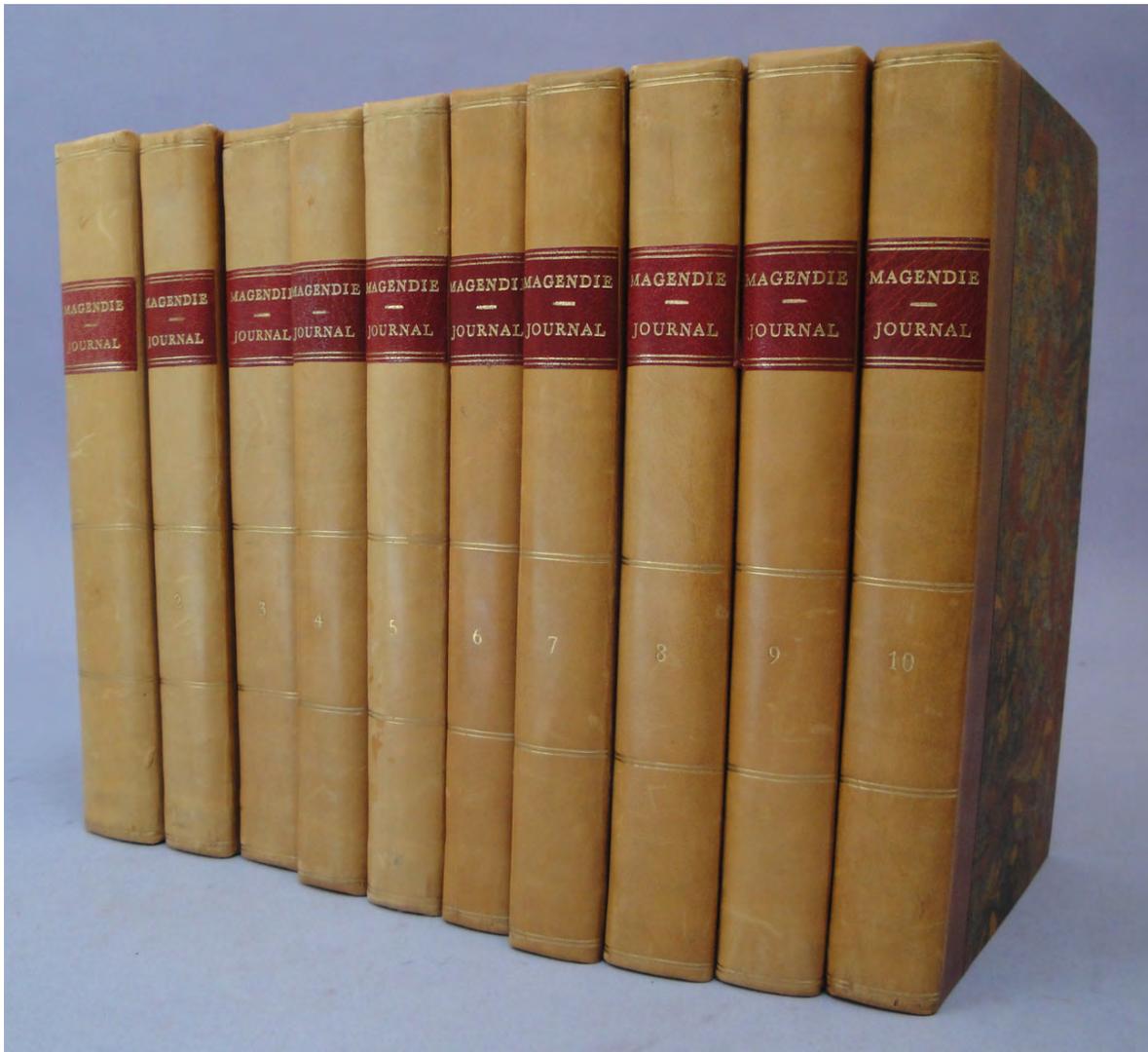
**First Edition in English.** The second volume of the translation did not appear until 1823. 42576

**55.** An elementary compendium of physiology; for the use of students. Translated from the French . . . by E. Milligan, M. D. xxxiv, [2], 445, [19]pp. Edinburgh: John Carfrae; London: Longman, Hurst, Rees, Orme, Brown and Green, 1823. 208 x 130 mm. 19<sup>th</sup> century cloth, leather spine label, a bit faded, slight wear at extremities. Minor foxing, minor worming in first and last leaves, but very good. \$450

**First Edition** of Milligan's translation, which includes both the first and second volumes of Magendie's *Précis*. 13542

**56.** Précis élémentaire de physiologie. 2 vols. xii, 384; [4], 603pp. Double-page plate, 5 fold. tables. Paris: Méquignon-Marvis, 1825. Half calf ca. 1825, rebounded, speckled boards, slightly rubbed. Very good. Bookplate. \$850

Second edition, revised and enlarged, and the first to include a discussion of Magendie's demonstration of the discrete functions of the spinal nerve roots, which was first published in his *Journal de physiologie expérimentale* (1821). 42539

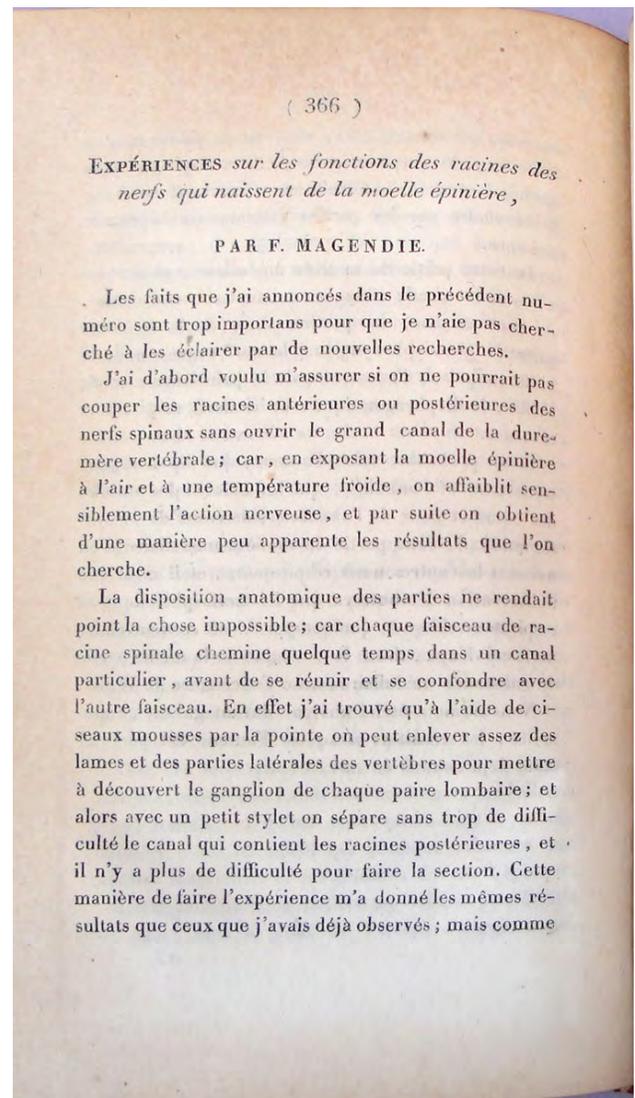
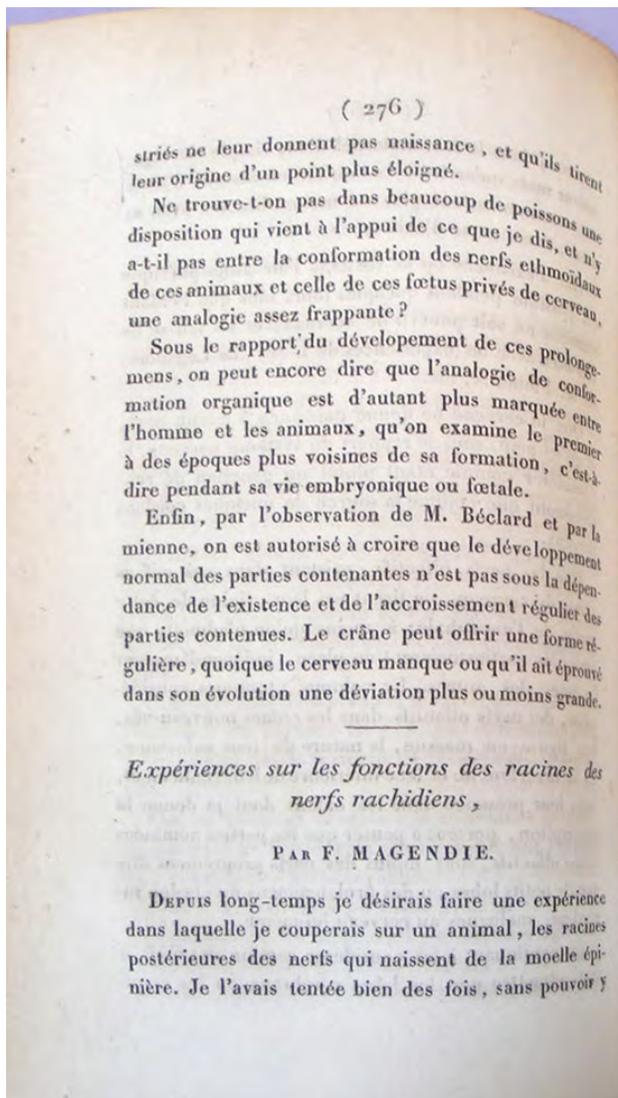


*First Journal of Experimental Physiology, Containing the First Printing of  
Magendie's Landmark Paper on the Bell-Magendie Law*

**57.** Journal de physiologie expérimentale [et pathologique]. 10 vols., 8vo. Plates. Paris: L'auteur; Méquignon-Marvis, 1821-30. 198 x 121 mm. Quarter calf, marbled boards in period style, spines faded. Periodic foxing heavy in places, some staining, but very good. Library stamp of the Royal College of Surgeons in Ireland. Bookplate. \$12,500

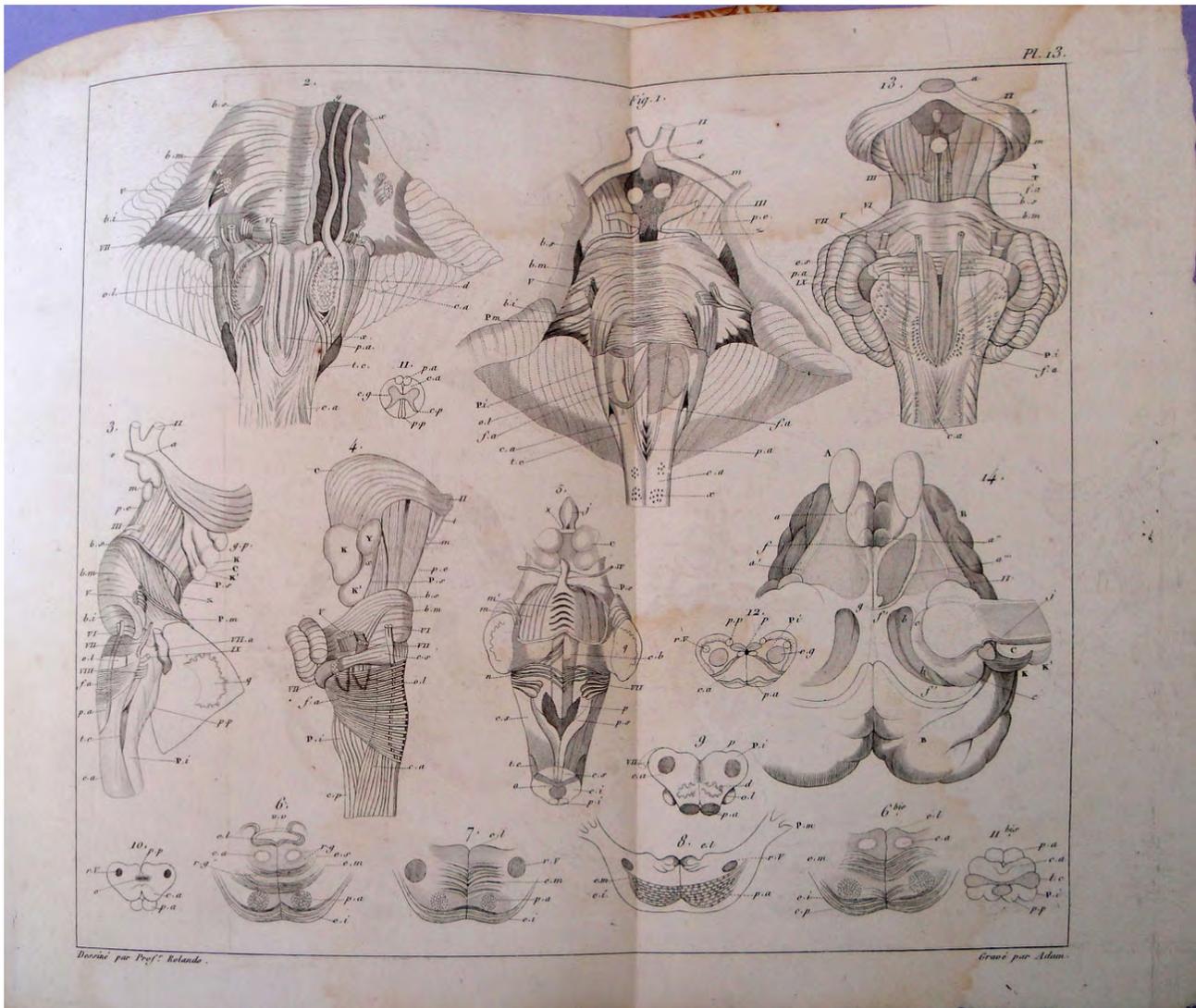
**A Near-Complete Run of the First Edition** of the first periodical devoted entirely to physiology, founded and edited by Magendie. Vol. II contains Magendie's "Expériences sur les fonctions des racines des nerfs rachidiens" (pp. 276-279); "in this short and brilliant article Magendie announces that section of the dorsal roots abolishes sensation, section of the ventral roots abolishes motor activity, and section of both roots abolishes both sensation and motor activity" (Cranefield, p. 11). This has been called the most momentous single discovery in physiology after Harvey. After this paper was published Charles Bell claimed that he had made the same discovery in 1811.

In his "Expériences sur les fonctions des racines des nerfs qui naissent de la moelle épinière" (II, pp. 366-371) Magendie published further experiments, including most probably "the first use of strychnine as part of a



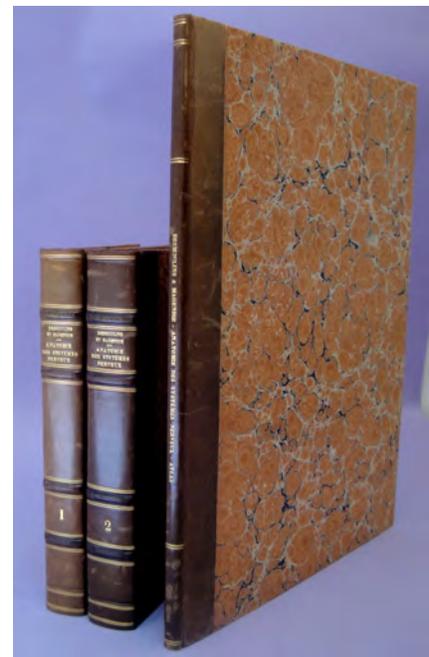
study of the localization of function in the nervous system as well as . . . a very early example of the rational use of a known property of a drug as a tool in physiological investigation.” (Cranefield, p. 12).

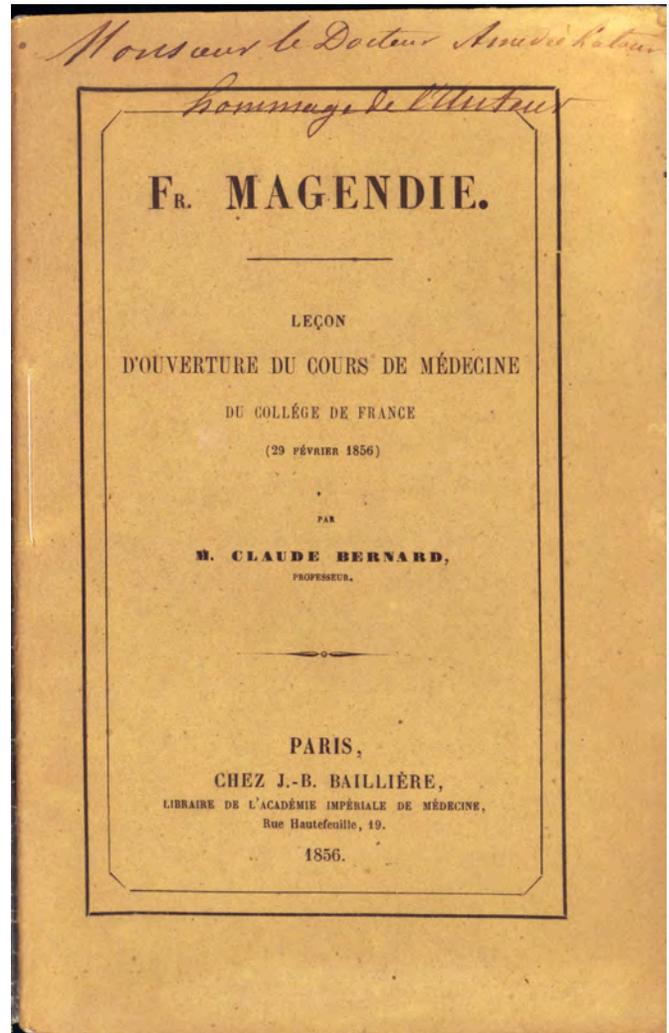
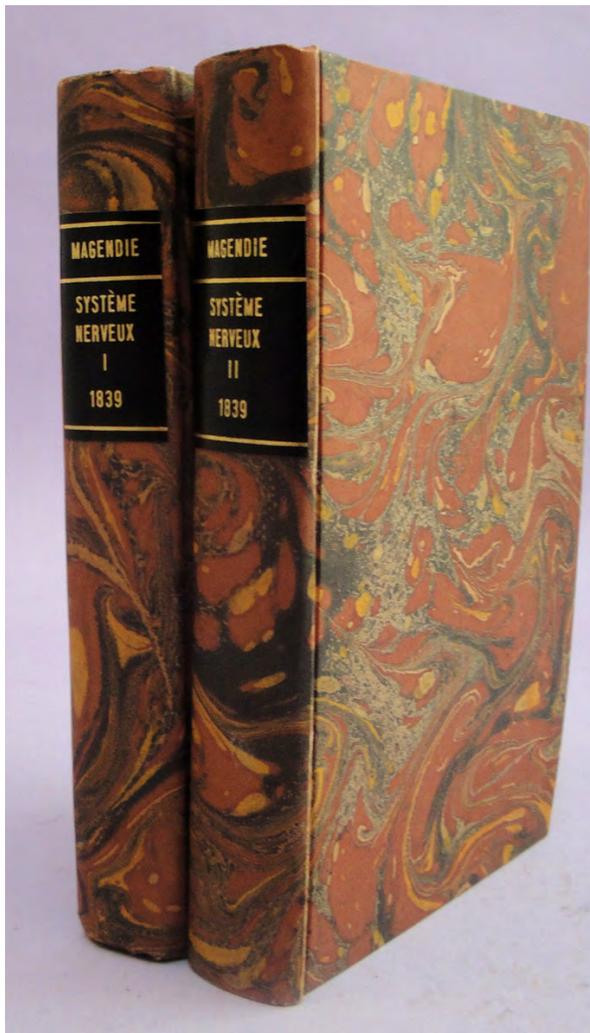
Among Magendie’s other significant contributions to the *Journal* were his “Mémoire sur le mécanisme de l’absorption chez les animaux à sang rouge et chaud” (Vol. I, pp. 18–31), demonstrating that the absorption of fluids and semisolids was a function of the blood vessels; and “Mémoire sur un liquide qui se trouve dans le crâne et le canal vertébrale de l’homme et des animaux mammifères” (Vol. V, pp. 27–37; VII, pp. 1–29; 66–82), containing the first clear description of the cerebrospinal fluid. This is a near-complete run of the *Journal*, which ceased publication in April 1831 after the appearance of the second number of Vol. XI. Garrison–Morton 598; 1256; 1256.1; 1392 (referring to articles cited above) .Norman 1418. Olmsted, pp. 83–86. 42551



**58.** [With **Louis-Antoine Desmoulins** (1794-1828).] *Anatomie des systèmes nerveux des animaux à vertèbres*. 2 vols., 8vo., plus 4to atlas. xxvii, 360; [4], 355-801, [3, including errata]pp. (text). Atlas has 12pp. plus 13 engraved plates. Paris: Méquignon-Marvis, 1825. 193 x 122 mm. (text); 300 x 225 mm. (atlas). Quarter calf, marbled boards in period style. Plates dampstained, lower margin of atlas title repaired, pp. xiii-xxvii in Vol. I misbound after title-leaf. Very good. \$1500

**First Edition.** A classic work on the vertebrate nervous system, produced in collaboration with Magendie's pupil L.-A. Desmoulins. "[Magendie's] very considerable contributions since 1822 to a knowledge of the physiology of the nervous system had already been assembled for convenient reference in the new edition of his *Précis* for 1824, but in editing the part of Desmoulins' book devoted to this aspect of the subject, he included descriptions of his own experiments, notably the observation of circus movements displayed in mammals after wounding of a peduncle of the cerebellum" (Olmsted, pp. 129-30). 42550





**59.** Formulary for the preparation and employment of several new remedies . . . Translated by Joseph Houlton, F.L.S. xi, 145, 18pp. London: T. & G. Underwood; New York: reprinted by J. & J. Harper for F. & N. G. Carnes, 1829. 197 x 117 mm. (uncut). Original boards, cloth backstrip, paper label (chipped), some wear and spotting but sound. Foxed throughout, rear endpapers torn, but very good. 19<sup>th</sup> century bookplate of H. C. Worsham of Dinwiddie, Virginia; bookplate of Arno B. Luckhart (1885-1957), discoverer of ethylene gas anesthesia (see Garrison-Morton 5705). \$200

**First American Edition** of Magendie's *Formulaire pour la préparation et l'emploi de plusieurs nouveaux médicaments* (1821), from the British edition of 1828. "Magendie introduced into medical practice a series of recently discovered alkaloids: strychnine, morphine, brucine, codeine, quinine and veratrine. He also generalized the therapeutic use of iodine and bromine salts" (*Dictionary of Scientific Biography*). 13678

**60.** Leçons sur les fonctions et les maladies du système nerveux . . . recueillies et rédigées par C[onstantin] James . . . 2 vols., 8vo. [4], 346; [4], 364pp. Paris: Ébrard, 1839. 199 x 126 mm. 20<sup>th</sup> century marbled boards, gilt-lettered spine labels. Minor foxing, but very good. Bookplate of Arthur Lyons. \$1750

**First Edition.** The last of Magendie's lectures on the nerves to be published in book form. "Magendie's contributions, summarized in 1839, were of remarkable significance to neurophysiology" (McHenry, p. 190). Olmsted, p. 210. 42552

**61. Bernard, Claude** (1813–73). Fr[ançois] Magendie. Leçon d’ouverture du cours de médecine du Collège de France. . . . 8vo. [4] 36pp. Paris: Baillière, 1856. 222 x 143 mm. Original printed wrappers. Light marginal dampstaining, but very good. Bernard’s autograph presentation inscription on the front wrapper: “Monsieur le Docteur Amedée Latour, hommage de l’Auteur.” \$2750

**First Edition.** Bernard’s longtime mentor François Magendie died in 1855, and Bernard, who had succeeded Magendie as professor of medicine at the Collège de France, opened his winter series of lectures with the present obituary notice, which includes a bibliography of Magendie’s publications. “What Bernard found to say in this lecture of the man of whom he speaks in the French manner as ‘my master,’ is testimony to his profound respect for the older man’s intellectual distinction and the contribution he had made to physiology and medicine, especially through his sponsorship of the experimental method. . . . [Bernard] was especially proud to be numbered in the legacy of experimenters which Magendie had bequeathed to physiology. Before Magendie, Bernard said, the experimenters could be counted; after him, it was the physiologists who did not experiment who could be counted and who needed to justify their existence” (Olmsted & Olmsted, *Claude Bernard*, pp. 90–91). Bernard presented this copy to the French physician Amedée Latour (1805–82), editor-in-chief of *L’Union médicale* and author of works on pathology and phthisis. Grmek, p. 315. Hirsch (for Latour). 37648

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Norman. Hook, Diana & Jeremy M. Norman. *The Haskell F Norman Library of Science and Medicine*. San Francisco: Jeremy Norman & Co., Inc., 1991.

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