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Catalogue 185

Proofs

*Science, Medicine, Natural History,
Chemistry, & Bibliography*

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Selective Subject Index

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Catalogue Begins on Following Page

Catalogue 185

1. **AGRICOLA, Georg.** *Libri Quinque de Mensuris & Ponderibus: in quibus pleraque à Budaeo & Portio parum animadversa diligenter excutiuntur.* Woodcut printer's device on title (repeated on verso of final leaf, otherwise blank). 261, [9] pp. (lacking final leaf, a blank). Small 8vo, cont. limp vellum (binding with one or two minor defects), ties gone. Paris: C. Wechel, 1533. \$3500.00

Second edition and a very fine copy of one of Agricola's most important books which became a standard work on ancient weights and measures. It is "a valuable book of reference on the history of ancient measures . . . The book is also valuable to the student of Roman and Greek numerals, and of the various symbols of measures. Such works explain the origin of certain systems of measures employed before the metric system was developed, and of such symbols as are still used by apothecaries."—Smith, *Rara Arithmetica*, pp. 171-73—(who, like several other bibliographers, including the Hoovers, mistakenly describes this as the first edition).

Besides these subjects, Agricola treats the value of metals of all kinds and of money both in ancient and modern times. The first edition appeared in the same

year at Basel.

A fine copy bound before a very slightly defective copy of Robert Ceneau's *De Vera Mensurarum ponderumque ratione opus de integro instauratum . . .* (1547); it lacks half of the folding table. Early ownership inscriptions of "Ex Biblioth. M.S. Cigirami" and "C. Lancelot" on the first title.

• Darmstaedter, *G. Agricola*, pp. 71-74—"especially important for the historian of medicine."

*A Fine Sammelband of the Scientific Writings
of Albertus Magnus*

2. **ALBERTUS MAGNUS.** A collection of seven scientific works by Albertus Magnus, in folio and in a contemporary binding, all but one printed in the 1490s by the de Gregoriis brothers in Venice, as follows:

— *De Mineralibus*. 21, [1] leaves. Venice: J. & G. de Gregoriis, 22 June 1495. Goff A-281. Hoover 38. Klebs 21.3.

[bound with]:

— *Phisico[rum] sive de Phisico Auditu Libri Octo*. 4 p.l., 124 leaves. Venice: J. & G. de Gregoriis, 31 Jan. 1494/95. Goff A-300. Hoover 34. Klebs 24.2.

[bound with]:

— *De Coelo et Mundo*. 73, [1] leaves. Venice: J. & G. de Gregoriis, 6 July 1495. Goff A-228. Hoover 36. Klebs 15.2.

[bound with]:

— *[Meteoris] Liber Methaurorum*. 71, [3] leaves. Venice: J. & G. de Gregoriis, 25 February 1494/95. Goff A-278. Hoover 42. Klebs 20.2.

[bound with]:

— *Liber de Generatione & Corruptione*. 23, [1] leaves. Venice: J. & G. de Gregoriis, 10 June 1495. Goff A-245. Hoover 37. Klebs 16.1.

[bound with]:

— *De Anima Libri Tres. De Intellectu et Intelligibili Libri Duo*. 2 p.l., 68 leaves. Venice: J. & G. de Gregoriis, 7 November 1494. Goff A-222. Hoover 35. Klebs 13.2.

[bound with]:

— *Thesaurus Vere Philosophie et Divine Sapientie a nonnullis de*

Apprehension . . . 61, [1] leaves. Leipzig: Wolfgang Stöckel, August 1505.
\$42,500.00

A very attractive *sammelband* of many of the scientific works of Albertus Magnus (1200–1280), published by the de Gregoriis brothers, the majority in their second edition (although the *Liber de Generatione & Corruptione* is in its first edition).

Proficient in all branches of science, Albertus Magnus was one of the most famous precursors of modern science in the High Middle Ages. "Albert's principal importance for the history of modern science derives from the role he played in rediscovering Aristotle and introducing Greek and Arabic science into the universities of the Middle Ages . . . Albert's early identification as a precursor of modern science undoubtedly stemmed from his empiricist methodology, which he learned from Aristotle but which he practised with a skill unsurpassed by any other Schoolman . . . He stated that evidence based on sense perception is the most secure and is superior to reasoning without experimentation. Similarly he noted that a conclusion that is inconsistent with the evidence cannot be believed and that a principle that does not agree with sense experience is really no principle at all."—*D.S.B.*, I, pp. 99-100.

Particularly important is the *De Mineralibus*, here in its third printing (1st ed.: 1476). It is "one of the best and most comprehensive of the western medieval lapidaries, it was written about 1260 . . . It is a compilation from earlier writers with the addition of some facts derived from the author's own observations . . . Seventy stones are mentioned, arranged alphabetically, and Albertus says that gems differ from other stones in that in them the water element preponderates over the earthy constituents and he attempts to classify them by color."—Adams, *The Birth and Development of the Geological Sciences*, pp. 144-45.

Two further works by Albertus Magnus were printed by the de Gregoriis brothers and are not present: the *Metaphysica* (18 Dec. 1494) and the *De Animalibus* (21 May 1495), no doubt separately bound due to their extended texts and now lost.

Bibliographical Details: Seven works in one volume, folio. I–VI: printed in double columns, 65 lines plus headline, gothic letter, initial spaces with guide letters, initials supplied in red with paragraph marks in blue (occasionally reversed), a few woodcuts, printer's device at end. VII: printed in double columns in Gothic letter. Title of second work (bound-in first) is a little soiled and the first four leaves a little loose, small hole in blank margin of last leaf. Apart from these minor blemishes very fine copies, in an exceptional state of preservation. Contemporary German blind-stamped pigskin over beveled wooden boards (a little marked and soiled), brass corner pieces & clasps intact, spine lettered in manuscript. Brass bosses on sides and a chain hasp at top of lower cover removed, later red morocco label on spine.

Provenance: inscription dated 1838. Booklabel of J. Baart de la Faille, medical

professor of Groningen. Bookplate of Bath Public Reference Library, presented by Capt. F.H. Huth in 1903.

This is an exceptional collection of six 15th-century editions (with one more book printed in 1505) in a volume wonderfully preserved in its original state.

• *D.S.B.*, I, pp. 99-103.

3. ALEMBERT, Jean le Rond d'. *Opuscules mathématiques, ou Mémoires sur différens sujets de Géométrie, de Méchanique, d'Optique, d'Astronomie &c.* Thirty folding engraved plates. 8 vols. 4to, cont. sheep-backed pink paste-paper boards, vellum tips, flat spines gilt, green morocco lettering pieces on spine. Paris: 1761-61-64-68-68-73-80-80. \$4500.00

First edition of this valuable and important collection of fifty-eight of the author's most notable memoirs on mathematical, astronomical, optical, and mechanical subjects, contributed to the Paris and Berlin Academies after 1760.

Nice set, with some very occasional foxing.

*A Handsome Sammelband containing Three of
Aristotle's Chief Scientific Works*

4. ARISTOTLE. . . . *Physicae Libri. VIII. Joan. Argyropilo interprete, adiectis Joan. Eckii Adnotationibus & commentariis.* . . . Large woodcut arms of the dedicatee Duke Ernst of Bavaria on title. Fine woodcut initials, illus. & diagrams throughout. Title printed in red & black. 1 p.l, CXI leaves. Folio, cont. south German blind-stamped pigskin-backed wooden boards (small blank portion of title patched at an early date, title somewhat soiled), orig. clasps & catches, upper cover stamped in black "Philosop. Naturalis Aristotel." [Augsburg: Grimm & Wirsung, 1518].

[bound with]:

— . . . *Libri De Coelo. IIII. De Generatione. II. Meteororum. IIII. Argyropilo, Nypho Boetio interprete. Adiectis Eckii Commentariis.* Large woodcut arms of the dedicatee Bishop Georg of Bamberg on title and numerous woodcut illus. & diagrams in the text. Final leaf with large armorial woodcut of the publisher. CXXV, [1] leaves. Folio. [Augsburg: Grimm & Wirsung, 1519].

[bound with]:

— . . . *De Anima. Libri III. De sensu & sensato. Liber I. De memoria & reminiscencia Liber I. De somno & vigilia. Liber I. De longitudine & brevitate vitae. Liber I. Per Argyropilum. Ex antiqua traductione. Adiectis Eckii*

Commentariis. Large woodcut arms of the dedicatee Bishop Christopher of Brixen. Fine woodcut initials & several woodcut illus. in the text. [Augsburg: Grimm & Wirsung, 1520]. \$25,000.00

A magnificent sammelband in a handsome contemporary binding of three of Aristotle's chief scientific works. The editions were prepared and translated by John Argyropulus (1416?-86), Greek humanist who was a very active promoter of the revival of learning in the West. Born in Constantinople, he was invited to Florence by Cosimo de' Medici, and was there appointed professor of Greek in the university. He left for Rome in 1471 where he continued to teach. He was highly esteemed as a translator of Aristotle.

Johann Eck (1486-1543), best known as Luther's greatest opponent, was professor and chancellor at Ingolstadt for thirty years. He is a representative of the scholastic humanists, who were loyal supporters of the Church, while they were also eager for a revival of classical learning, and a new system of education. About 1515, the Duke of Bavaria established a commission to find means for ending the interminable strife between the rival academic parties at the University of Ingolstadt, and entrusted Eck with the preparation of fresh commentaries on Aristotle and Petrus Hispanus. These works became the standard text books of the university. The commentaries were inspired with much of the scientific spirit of the New Learning, but Eck had no sympathy with the revolutionary attitude of the Reformers (see *Encyc. Brit.*).

Very fine and fresh copies in a most attractive binding.

• Riley, *Aristotle. Texts and Commentaries to 1700 in the University of Pennsylvania Library. A Catalogue*, 170, 68, & 55.

5. **ATKINSON, Geoffroy.** *La Littérature Géographique Française de la Renaissance. Répertoire Bibliographique... Description de 524 Impressions d'Ouvrages publiés en Français avant 1610, et traitant des Pays et des Peuples non Européens.* By Geoffroy Atkinson. 300 facsimiles. 563 pp. Large thick 4to, orig. wrappers bound in modern cloth. Paris: A. Picard, 1927.

\$400.00

Limited to 550 numbered copies. Detailed collations. Bound-in at the end is the *Supplément* (1936) of 87 pages.

6. **(AUCTION CATALOGUE: ANQUETIL-DUPERRON, Abraham-Hyacinthe).** *Catalogue des Livres de M. A.H. Anquetil-Duperron; Voyageur aux Grandes Indes... dont la vente se fera... 24 septembre 1805, et jours suivans...* 2 p.l., iv, 4, [v]-viii, 236 pp. 8vo, orig. wrappers (joints a little

frayed), uncut. Paris: chez Veuve Tiliard et Fils, 1805. \$2950.00

The very uncommon auction catalogue of the library of Anquetil-Duperron (1731-1805), French orientalist. His library, numbering 1600 lots, contained many rare books printed in India, China, and elsewhere in the Orient. Priced throughout in a contemporary hand.

Anquetil-Duperron developed at an early age a taste for Hebrew, Arabic, Persian, and other languages of the East. He found passage to Pondicherry in 1755 and he remained in the Orient for several years, until he returned to Paris in 1762, via London and Oxford. He spent the rest of his life editing and publishing the manuscripts which he had purchased during his travels to India.

Nice copy in original state. With the uncommon four-page sale schedule.

• Grolier Club, *Printed Catalogues of French Book Auctions... 1643-1830*, 458. Peignot, p. 77—"Ce catalogue est curieux, surtout pour les livres en langues étrangères. Les ouvrages, quoique peu soignés quant à la reliure, ont été vendus à prix exorbitants."

An Attractive Sammelband of Auction Catalogues

7. (AUCTION CATALOGUES: GERSAINT, Edmé François). *Catalogue des Livres, Tableaux, Estampes et Dessesins de feu M. Gersaint, dont la Vente se fera en détail Lundi 25 Mai 1750, & continuera les jours suivans... 1 p.l., 66, 81-151 pp. [& quite complete]. 8vo, cont. mottled calf, triple gilt fillet round sides, spine gilt, contrasting leather lettering piece on spine. Paris: Barrois, 1750.*

[bound with]:

(GERSAINT). *Tableaux, Estampes et Dessesins qui se trouvent dans le Fond de feu Mr. Gersaint*. 14, [1] pp. 8vo. Paris: Prault, 1750.

[bound with]:

(AUTRY). *Catalogue des Livres de feu M. le Comte d'Autry; dont la Vente se fera en détail... Mardi 7. Avril 1750. & jours suivans...* Finely engraved arms of the Count on title. 4 p.l., 159 pp. 8vo. Paris: G. Martin, 1750.

\$4500.00

A very attractive *sammelband* of three notable auction catalogues, all from 1750.

I. The very rare sale catalogue of the books, paintings, and drawings in the personal collection of Gersaint (d. 1750), the leading auctioneer of the time in Paris of art objects and natural history specimens. Gersaint was not only an auctioneer with an exceptional ability to immediately and accurately evaluate paintings, prints, and natural history objects but a true scholar and connoisseur.

Upon his death, there were two large catalogues in 1750 of his books,

paintings, drawings, and engravings. The present catalogue — the first sale — describes the most important portion of his collections. 2217 lots and priced throughout in a contemporary hand.

II. Extremely rare; no copy in *N.U.C.*, OCLC, or RLIN. The present catalogue — a third sale — describes merchandise purchased by Gersaint on his final trip to Holland and which did not arrive in time to be put in the larger catalogues. This catalogue also contains many Chinese porcelains; 41 lots.

III. The very rare sale catalogue of the library of Louis Joseph de Goujon de Thuisy, Comte d'Autry (1674-1749); there is no copy in *N.U.C.* "Le comte d'Autry avait, pour ainsi dire, passé sa vie à réunir des livres. 'Ce fut, dit la notice placée en tête de son catalogue, sa seule et unique passion.' Aussi, sa bibliothèque était-elle remarquable par le nombre, le choix et la variété des ouvrages qui la composaient. On trouva à sa vente beaucoup de volumes reliés par les Duseuil, Derôme, Padeloup, et autres habiles artistes."—Guigard, II, p. 27.

2387 lots, containing about 5000 volumes. Priced throughout in a contemporary hand with the exception of lots 835-1200 which were, we learn from a contemporary note on page 55, retained by the family. Without the one-leaf schedule of sale bound in at the end of some copies.

Fine copies. Engraved armorial bookplate dated 1750 of Monsieur Bourlier l'Ainé.

❦ I & II., Bléchet, p. 130. Blogie col. 5. Grolier Club, *Printed Catalogues of French Book Auctions... 1643-1830*, 90. Pollard & Ehrman no. 284 & 285. III. Bléchet, p. 130. Grolier Club, *Printed Catalogues of French Book Auctions... 1643-1830*, 89. Pollard & Ehrman no. 283.

Heber's Mentor & Dibdin's Lepidus

8. (AUCTION CATALOGUE: GOSSET, Isaac). *A Catalogue of the extensive and very Valuable Library of the late Rev. Is. Gossett [sic], D.D., F.R.S. which will be sold by auction, by Leigh and Sotheby... on Monday, June 7, 1813, and twenty-two following Days... 2 p.l., 213 pp. Large 8vo, cont. red half-sheep & marbled boards (head of spine chipped), flat spine gilt, black morocco lettering piece on spine, uncut. London: 1813.*

\$1350.00

Gosset (1735?-1812), was "the most regular attendant at book sales of his generation, who bought more bibliographical treasures for 6d. than any man before or since. 'He also had a fad for milk-white vellum.' His health, 'which was delicate even to deformity, prevented him from pursuing an active clerical career'."—Herrmann, *Sotheby's*, p. 15n. Gosset (his name is misspelled on the title-page) helped Dibdin with his *Introduction to the Classics* and was cast as "Lepidus" in his *Bibliomania*. He played a formative role in the young Richard Heber's career as a book collector.

This was a rather large library of 5740 lots and was particularly rich in Biblical

and bibliographical works.

Nice uncut copy.

• Horne, p. 651.

The Most Important Collection of the 18th Century

9. (AUCTION CATALOGUE: LA VALLIÈRE). *Catalogue des Livres de la Bibliothèque de feu M. le Duc de la Vallière. Première Partie contenant les Manuscrits, les premières Éditions, les Livres imprimés sur vélin & sur grand papier, les Livres rares, & précieux par leur belle conservation, les Livres d'Estampes, &c. dont la Vente se fera dans les premiers jours du mois de Décembre 1783.* Engraved frontis. port., one folding engraved plate, & four engraved facsimiles (three folding). Three vols. 8vo, cont. vellum over boards, spines gilt. Paris: G. De Bure, 1783. \$3000.00

An attractive set of the celebrated catalogue of the first part of the most important book and manuscript collection of the 18th century. The catalogue, prepared by De Bure and Van Praet, contains MSS., noteworthy incunabula, and books printed on vellum or large paper. The sale, consisting of 5668 lots, made the enormous sum of 464,677 liv. 8 s.

"The manuscripts constitute an amazing collection of early French poetry and romances."—Taylor, *Book Catalogues*, p. 248.

This set does not have the *Supplément* to the first part; it is very rare and is usually found only in large paper sets.

• Brunet, II, 554. Peignot, pp. 128-29. Pollard & Ehrman no. 297.

Including Buffon's Library

10. (AUCTION CATALOGUE: MIRABEAU). *Catalogue des Livres de la Bibliothèque de feu M. Mirabeau l'ainé, Député et ex-Président de l'Assemblée Nationale Constituante, dont la vente se fera . . . le lundi 9 Janvier 1792 et jours suivans . . .* 2 p.l., xxvi, 440 (i.e. 434) pp., 1 leaf; lxi pp. 8vo, cont. pink paste-paper boards (extremities a bit worn), uncut. Paris: Rozet & Belin, 1791. \$1750.00

The scarce sale catalogue of the important library of Honoré Gabriel Riquetti, Comte de Mirabeau (1749-91), the great French statesman and intellectual pathfinder of the French Revolution. It was the plan of Mirabeau to build up a gigantic library illustrative of the progress of mankind.

The particular interest of this catalogue lies in the fact that it incorporates Buffon's library which Mirabeau acquired after Buffon's death. Buffon's books take up a substantial portion of the natural history section of the catalogue (pp. 160-212), where particular copies having belonged to Buffon are noted, including

many books with his manuscript annotations. 2854 lots, including MSS.

The separately issued author index is present.

• Bloie col. 18. Peignot, p. 114—"Dan ce catalogue intéressant . . . il renferme beaucoup de notes bibliographiques." Taylor, *Book Catalogues*, pp. 145-46.

First Issue; The Sunderland — Sparrow Copy

11. (AUCTION CATALOGUE: [PÂRIS DE MEYZIEU, J.B. or PÂRIS D'ILLENS]). *Bibliotheca Parisiana. A Catalogue of a Collection of Books, formed by a Gentleman in France. . .* They will be sold by Auction in London, on Monday the 26th of March, 1791, and the Five Days following . . . viii, 164 pp. 8vo, cont. speckled calf, rebacked with the orig. red & green morocco lettering pieces on spine. [London: for J. Edwards, 1791].

\$1450.00

The English edition, first issue, of the catalogue of this famous sale; it is priced throughout in a contemporary hand. For a fascinating account of this catalogue and sale (which caused traffic jams along Pall Mall), see Arthur Rau's "Bibliotheca Parisina" in *The Book Collector* (Autumn 1969), pp. 307-17. Amongst the buyers at this sale were Lord Spencer, Douce, Woodhull, Cracherode, and the Duke of Newcastle.

We are not sure who formed the library — was it Pâris de Meyzieu or Pâris d'Illens? — nor are we sure who consigned the books. It might have been the collector or James Edwards, the bookseller, having purchased the library in France. We also know that not all the books came from the one library; there were books from Loménie de Brienne, masquerading under another provenance probably for political reasons, and Aldines which Edwards must have obtained in Italy. Nevertheless, this is one of the great sales of the period.

Fine copy. The first issue bears the date of 26th March (not a Monday). Bookplate of the Duke of Sunderland and the booklabel of John Sparrow.

• De Ricci, p. 89. Peignot, pp. 116-17. Taylor, *Book Catalogues*, p. 92.

With the Portrait

12. (AUCTION CATALOGUE: ROTHELIN). *Catalogue des Livres de feu M. l'Abbé d'Orleans de Rothelin.* Par G. Martin. Engraved frontis. port. of the collector & engraved vignette with arms on title. xii, xxiv, 618 pp. 8vo, cont. mottled calf (head of spine a bit worn), spine gilt, red morocco lettering piece on spine. Paris: G. Martin, 1746. \$1750.00

Rothelin (1692-1744), a younger son of Marquis Henri de Rothelin, a French

war hero (see Hoefler), descended from a natural son of François d'Orléans (d. 1548). Rothelin was one of the most eminent French book collectors of the 18th-century; he had his books, many large paper copies, bound by the outstanding binders of the time, such as Boyer, Padeloup and Duseuil; but the most spectacular part of his library was the collection of illuminated and historical MSS, largely from the collection of Nicholas-Joseph Foucault, including the Sherbourne Missal and the *Bible* of Charles V (Martin's special index of MSS lists 260 lots).

Rothelin appears to have been a man of great charm and learning who entertained liberally at his country house near Paris. Voltaire addressed some verses to him, lauding his taste and "esprit si délicat, si sage" (quoted by Bogeng). He was also an outstanding numismatist: his vast collection of Imperial medals and coins was acquired by the King of Spain for 87,000 livres.

This is considered to be one of the best sale catalogues compiled by Martin, one of twenty-two with an index.

5036 lots and priced throughout in a contemporary hand.

Fine copy. The frontispiece portrait, present in this copy, is often wanting. Armorial bookplate of Baron de Bellet (Jean).

• Bléchet, p. 120. Grolier Club, *Printed Catalogues of French Book Auctions... 1643-1830*, 82. Peignot, p. 121—"Catalogue estimé." Taylor, *Book Catalogues*, pp. 14, 190, & 259.

A Famous Rarity

13. BARBA, Albaro Alonso. *Arte de los Metales en que se enseña el verdadero beneficio de los de oro, y plata por açogue. El Modo de fundirolos Todos, y como se han de refinar, y apartar unos de otros.* Jesuit woodcut arms on title & 12 woodcuts in the text. Title within typographical border. 4 p.l., 120 numbered leaves. Small 4to, cont. limp vellum (first three leaves with a stain at head across the leaf touching some letters), two remains of green silk ties. Madrid: en la Imprenta del Reyno, 1640. \$45,000.00

First edition of this famous rarity; it is a celebrated treatise in the history of mining and metallurgy. Palau remarks "muy rara" and mentions only a defective copy sold in 1921. This is a very fine copy; it is the first really fine example I have seen.

"In 1588, Barba (1569-ca. 1640), was sent by the Church to Peru... *El Arte* was the first significant treatise on metals to be written in Spanish and is the only seventeenth-century treatise that was largely original... It went through approximately thirty editions in Spanish, English, German, and French...

"Barba excelled in his account of the treatment of silver ores by amalgamation, using processes that he himself had discovered and that were in large measure responsible for the wealth of the province... Barba was one of the first writers to advocate what amounts to a laboratory control of an entire plant process as

well as the computation of all costs (including fuel, mercury, additives, depreciation of equipment, and labor) before undertaking an operation. He describes the local pre-Columbian smelting practice, and the use of the reverberatory furnace for smelting considerably before its widespread adoption."—*D.S.B.*, I, p. 448.

A very fine and crisp copy. The only other copies sold in recent years we can trace were Robert Honeyman's in 1978 (a poor copy) and Joseph Freilich's in 2001 (even worse).

♣ Palau 23622. Partington, II, pp. 39-40—"he gave a detailed account of the ores and minerals of South America in his book... The work was kept secret in Spain."

*The First Important Encyclopedia of the Middle Ages;
The André L. Simon Copy*

14. BARTHOLOMAEUS, Anglicus. *De Proprietatibus Rerum*. Gothic type, 50 lines & headline to the page, double columns. Rubricated initials. 326 leaves. Small folio (287 x 197 mm.), cont. blind-tooled South German calf over wooden boards (see below for a fuller description). [Heidelberg: Printer of Lindelbach (Heinrich Knoblochtzter?), 21 May 1488]. \$25,000.00

Tenth edition of the first important encyclopedia of the Middle Ages; "still important for its information on political geography and its accounts of natural history."—Stillwell, *The Awakening Interest in Science during the First Century of Printing 1450-1550*, p. 186.

This encyclopedia was immensely popular for more than three centuries. Divided into nineteen books, the contents are as follows: "(1) God; (2) angels and demons; (3) psychology; (4-5) physiology; (6) family life, domestic economy; (7) medicine; (8) cosmology, astrology; (9) time divisions; (10) form and matter, elements; (11) air, meteorology; (12) flying creatures; (13) waters and fishes, dolphins, whales; (14) physical geography; (15) political geography, (in 175 chapters; this contains a number of interesting remarks, notes on economic geography, etc.); (16) gems, minerals, metals; (17) trees and herbs; (18) animals; (19) color, odor, savor; food and drink, eggs; weights and measures; musical instruments."—Sarton, II, p. 586.

"Book 16 contains 104 short chapters on as many mineral substances as earths, stone, ores, metals, salts, etc., as well as gemstones, the latter often given names that now defy identification of the materials concerned. Gemstones are alabaster, adamante, amethyst, agate, alabandina, beryl, carbuncle, chrysoprase, chalcedony, chrysolite, rock crystal, coral carnelian, hematite, heliotrope, jet, jasper, hyacinth, pearl, marble, onyx, opal, prase, sapphire, emerald, sard, sardonyx, topaz, turquoise; very brief descriptions with comments on curious or medicinal lore associated with each."—Sinkankas, *Gemology*, p. 70.

Bartholomew (fl. 13th cent.), studied at Oxford, Paris, and Magdeburg.

This was probably the first book from the second press of Heinrich Knoblochtzter, who moved from Strasbourg to Heidelberg in the mid-1480s. The edition belongs to a group commonly assigned to the eponymous "Printer(s) of Lindelbach." *BMC* divides this group into two parts and assigns the early productions to the brothers Johann and Conrad Hist and the later ones to Knoblochtzter. Voulliéme (*Die deutschen Drucker des XV. Jahrhunderts*, Berlin 1922, pp. 73-74) gives reasons for identifying the Lindelbach press with Knoblochtzter and attributes all the editions from the group to him, as does Geldner (*Die deutschen Inkunabeldrucker*, Stuttgart, 1968, I, p. 268). If Voulliéme and Geldner are right that the Lindelbach printer's output forms a single group and should not be divided, then Knoblochtzter would be the first Heiderberg printer, but the Bartholomaeus not his first publication; if *BMC* is correct, Knoblochtzter would be the third printer at Heidelberg and the Bartholomaeus his first work there.

Binding: contemporary blind-tooled South-German calf over wooden boards (some wear, head and tail of spine defective): the covers divided by triple fillets into a double frame and central panel, the frames filled with floral rolls, the central panels tooled to an ogival saltire pattern, each compartment filled with a floral tool, "Bartholomei" stamped at top of front cover, an Augsburg binding (Kyriss shop 83: Bogenfries Rolle II); evidence of two clasps; the back pastedown fol. Cxlii from Hieronymus, *Buch der Altväter* (Augsburg: Anton Sorg, 5 September 1482).

Provenance: Frater Johannes: contemporary inscription on DD8r — Ziegler: 16th-century inscription on F3v — Seitenstetten, Benedictines: armorial inkstamps on 1/1r and DD8r — André L. Simon, *Bibliotheca Bacchica* bookplate.

• *BMC*, III, 670. GKW 3411. Goff B-139. Klebs 149.3. Simon, *Bibliotheca Bacchica*, 19b. Simon, *Bibliotheca Gastronomica*, 173. Thorndike, II, pp. 401-35.

15. BERGMANN, Abraham Leonhard. *Das Kreosot in chemischer, pharmaceutischer und therapeutischer Beziehung zunächst für Aerzte und Pharmaceuten.* x, 86 pp. 8vo, modern green boards, uncut. Nuremberg: F. Campe, 1835. \$500.00

First edition of this early work on the wood and coal tar creosotes. Bergmann, a physician at Munich, describes the chemical and pharmaceutical uses these products have. Wood creosote has been used as a disinfectant, a laxative, and a cough treatment. Coal tar products are also used in medicines to treat diseases such as psoriasis, and as animal and bird repellents, insecticides, animal dips, and fungicides.

Very good copy.

• Waring, p. 388.

*The Foundation of Hydrodynamics & the
Kinetic Theory of Gases*

16. **BERNOULLI, Daniel.** *Hydrodynamica, sive De Viribus et Motibus Fluidorum Commentarii. Opus Academicum . . .* Finely engraved vignette on title, one engraved headpiece, & twelve folding engraved plates. Title in red & black. 4 p.l., 304 pp. Large 4to, cont. calf (two corners very slightly worn, upper joint very carefully repaired), spine gilt, red morocco lettering piece on spine. Strasbourg: J.R. Dulsecker, 1738. \$16,500.00

First edition of the author's *magnum opus*, the foundation of the science of hydrodynamics, a term coined by Bernoulli, and of the kinetic theory of gases. By discarding the geometrical analogies used by Huygens and Newton and adopting advanced mathematical analysis, Bernoulli was able to treat successfully a number of problems in fluid dynamics, earning him the title of one of the founders of mathematical physics. In the *Hydrodynamica*, he enunciates the generality of the principle of conservation of force, established the principle of continuity for the motion of fluids, introduces the Bernoulli equation relating pressure to velocity and the equation governing the force of a laterally discharge fluid jet and its pressure on a facing plate.

Other important observations in the *Hydrodynamica* include the convertibility of heat to work and the quantification of the physiology of work, e.g., the maximum work, in energy terms, a man can perform in a day.

A very fine and fresh copy. Two old Jesuit library stamps on title. Ex Bibliotheca Mechanica with label.

• *D.S.B.*, II, pp. 39-40—(see for a long and detailed account). *Printing & the Mind of Man* 179n. Roberts & Trent, *Bibliotheca Mechanica*, pp. 34-35. Rouse & Ince, *History of Hydraulics*, pp. 95ff.

First Medical Endorsement of Harvey

17. **BEVERWIJCK, Johan van.** *De Calculo Renum & Vesicae Liber singularis. Cum epistolis & consultationibus magnorum virorum.* 8 p.l., 305, [15] pp. 12mo, cont. vellum over boards, yapp edges. Leyden: Elsevir, 1638.

[bound with]:

- LANGWEDEL, Bernhard.** *Carolus Piso Eucleatus, sive Observationes Medicae Pisonis.* 159, [9] pp. 12mo. Leyden: Elsevir, 1639. \$3500.00

I. First edition. The first part of the present book (pp. 1-208) contains Beverwijck's treatise on calculi in the kidney and bladder. The second part (pp. 209-305) contains letters addressed by Beverwijck to some prominent physicians (including Nuñez, Back, Saumaise, and Zacuto) whom he consulted on that

subject, along with their replies. Several consilia by Sanctorius, Spiegel, Horst, and others follow.

Beverwijck (1594-1647), a relative of Vesalius, was a physician and professor of medicine at Dordrecht. At the end of 1637 he wrote a letter to Harvey in which he expressed his admiration for Harvey's discovery of blood circulation. At the same time he sent him a copy of the present book. It is the first medical treatise to contain an endorsement of Harvey's discovery, a remarkable fact in view of the negative attitude within the academic circles in Holland. The passage in question is found on pages 20-24 and is discussed by Walter Pagel in his *William Harvey's Biological Ideas* (1967), who reproduces the title-page of our book and two pages of the passage on Harvey. Interestingly, it escaped the attention of Dr. Ernst Weil in his "The Echo of Harvey's *De Motu Cordis*."

Harvey replied to Beverwijck's letter in April 1638, praising his book.

II. First edition (?); this is one of two editions published in the same year. Langwedel (1596-1656), a native of Hamburg, was physician to Duke Julius Heinrich of Saxony.

Fine copies.

• I. Keynes, *The Life of William Harvey*, pp. 271-73. Murphy, *History of Urology*, p. 78. Willems 463. II. Hirsch, III, p. 675. Willems 485.

*The First Independent Bibliography of
Chemistry and Alchemy*

18. BOREL, Pierre. *Bibliotheca Chimica. Seu Catalogus Librorum Philosophicorum Hermeticorum... Authorum Chemicorum, vel de transmutatione Metallorum...* 6 p.l., 276 pp. 12mo, cont. vellum over boards. Paris: C. du Mesnil & T. Jolly, 1654. \$12,500.00

First edition of "the first independent bibliography of chemistry and alchemy, including manuscript material, based on the author's very considerable collection of 4,000 books and manuscripts. Borel, 'medecin ordinaire du Roy,' made some original contributions to medicine and also wrote on optics, the microscope, botany, and antiquarian subjects."—Grolier Club, *Bibliography*, 59.

A fine copy of a book which has become scarce.

• *D.S.B.*, II, pp. 305-06. Ferguson, I, pp. 116-17. Neville, II, p. 179—"This constitutes the first extensive catalogue of chemical works. It cites many authors or titles either now entirely lost or obtainable only with great difficulty."

Large Paper Copy

19. (BRIDGES, John). *Catalogus Librorum Johannis Bridges, Armigeri; nuper ex Hospitio Lincolnensi. Juxta Exemplar Catalogi MSti quem ipse dum in vivis erat, concinnari fecerat. Adjicitur Appendix MSSorum*. Engraved frontis. 2 p.l. (incl. the frontis.), 4, 345, [1], 2 pp. Large 8vo, cont. speckled calf (joints a little cracked but strong, extremities a little worn), double gilt fillet round sides, black leather lettering piece on spine. London: J. Tonson & J. Watts, 1725. \$2950.00

The very uncommon inventory catalogue, printed on large paper, of the library of John Bridges (1666-1724), historian of Northamptonshire, who left his library to his two brothers. They prepared this catalogue for sale but their efforts were fruitless as the books were sent to auction before the year was out. This is one of the earliest of all English inventory catalogues.

Dibdin called Bridges "a notorious book-collector" and the library contained over 4000 books and MSS. It was notably rich in the history and antiquities of Great Britain and Ireland.

A very good and fresh copy.

• *D.N.B.*, II, pp. 1229-30—"the catalogue of his library was long retained as valuable by curious collectors." Fletcher, *English Book Collectors*, pp. 156-58. Pollard & Ehrman, p. 212, Table XXV, & no. 222. Taylor, *Book Catalogues*, pp. 193 & 206.

20. BUERJA, Abel. *Grundlehren der Dynamik oder desjenigen Theiles der Mechanik welcher von den festen Körpern im Zustande der Bewegung handelt*. Engraved allegorical frontis. & woodcut diagrams in the text. 2 p.l. (incl. frontis.), viii, [2], 416 pp., one leaf of errata. 8vo, cont. marbled sheep, spine nicely gilt, contrasting leather lettering piece on spine. Berlin: F.T. Lagarde, 1791. \$750.00

First edition. Bürja (1752-1816), professor of mathematics at the Berlin Military Academy and a member of the Royal Academy of Sciences at Berlin, wrote many books on mathematics, hydraulics, and scientific instruments. This is an uncommon work on dynamics.

Fine copy. Old library stamp on title. Ex Bibliotheca Mechanica.

• Roberts & Trent, *Bibliotheca Mechanica*, pp. 56-57.

Limited to 200 Copies

21. **(BUTURLIN, Dimitrii Petrovich, Graf).** *Catalogue de la Bibliothèque de son Exc. M. le Comte D. Boutourlin.* Engraved arms on title. [482] pp. 8vo, attractive modern black morocco-backed marbled boards. Florence: [Privately Printed], 1831. \$2750.00

Limited to 200 copies only, privately printed. Buturlin (1763-1829), Russian soldier, military historian, politician, librarian of the Imperial Russian Library, and one of the most outstanding book collectors of 19th century Russia, had formed earlier an important library but it was unfortunately destroyed during the burning of Moscow in 1812. The present catalogue describes Buturlin's very large second collection, formed during his retirement in Florence, which Brunet describes as being superior to the first. It contained 244 important early MSS., 964 15th-century books (many of which were unrecorded), a very complete Bodoni collection, and other outstanding later items.

7929 items in all are described. Edited by E.L.J.E. Audin.

Fine copy.

• Brunet, I, 1642-43. Gustave Brunet, *Dictionnaire de Bibliologie Catholique*, col. 422–He "réunit un grand nombre d'ouvrages bien choisis."

"A Rare Book"

22. **CHAMBON, Joseph.** *Traité des Metaux, et des Mineraux, et des Remedés qu'on en peut tirer; avec des Dissertations sur le Sel & le Soulfre des Philosophes, & sur la Goute, la Gravelle, la petite Vérole, la Rougeole & autre Maladies: avec un grand nombre de Remedés choisis.* 22 p.l., 547, [5] pp. 8vo, cont. speckled calf (head of spine a little chipped), spine gilt, red morocco lettering piece on spine. Paris: C. Jombert, 1714. \$2500.00

First edition. "This very interesting work . . . deals with the common minerals and their extraction and separation from other minerals in order to prepare medicines. It is also of considerable chemical and metallurgical interest, describing the preparation of sulfuric acid with its use in dissolving metals to form salts (i.e., sulfates and bisulfates). In addition to inorganic compounds, organic compounds are described (e.g., oil of tobacco, extract of coffee, chocolate and tea, oils, perfumes and their preparation, and essential oils). Although certain of the old chemical historians cite an edition of 1713, no such edition exists, the present one of 1714 being the first. A rare book."—Neville, I, p. 258.

Chambon (1647- ca. 1733), took his medical degree at Avignon and travelled widely throughout Germany, Italy, Holland, England, and France. He became physician to King John Sobieski of Poland.

Nice copy.

• Duveen, p. 129. Ferguson, I, pp. 150-51. Hoover 216.

The Foundation of Modern Thermodynamics

23. **CLAUSIUS, Rudolf Julius Emmanuel.** "Ueber die bewegende Kraft der Wärme und die Gesetze, welche sich daraus für die Wärmelehre selbst ableiten lassen," pp. 368-97 & 500-24 in *Annalen der Physik und Chemie. Dritte Reihe*, Vol. 19 (ed. by J.C. Poggendorff). Three folding plates. 1 p.l., ix, [1], 580 pp. 8vo, modern cloth-backed marbled boards (several ex-library markings). Leipzig: J.A. Barth, 1850.

\$1250.00

The complete volume, containing the first appearance of this classic work, in which Clausius (1822-88), established the foundations for modern thermodynamics

Apart from the library markings, in excellent condition. Ex Bibliotheca Mechanica.

☛ *D.S.B.*, III, pp. 303-11. Roberts & Trent, *Bibliotheca Mechanica*, pp. 75-76.

24. **CLOQUET, Hippolyte.** *Dissertation sur les Odeurs, sur le Sens et les Organes de l'Olfaction.* 2 p.l., 175, [1] pp. Large 4to, modern marbled wrappers. Paris: Feugueray, 1815.

\$375.00

First edition of this rare thesis on odors, the sense of smell, plastic surgery, and the olfactory organs. Of the second edition, entitled *Osphrésiologie* (1821), Garrison-Morton 3253 writes: "An exhaustive work which discusses olfaction, diseases of the nose, membranous occlusion of the nostrils, deviations of the septum, rhinoplasty, coryza, vasomotor rhinitis, rhinorrhoea, etc."

Cloquet (1787-1840), was professor of anatomy at the Faculty of Medicine at Paris and the author and translator of many medical works.

Fine copy.

☛ Hirsch, II, pp. 52-53.

Clocks & Watches

25. **CUMMING, Alexander.** *The Elements of Clock and Watch-Work, Adapted to Practice. In Two Essays.* 16 folding engraved plates. 4 p.l., 192, [13] pp. Large 4to, cont. half-calf & marbled boards (ends of spine somewhat worn, corners a little worn), spine gilt, red morocco lettering piece on spine. London: Printed for the Author, 1766.

\$4250.00

First edition of the author's first book; this is a fine association copy, having belonged to Matthew Boulton (1728-1809), the well-known engineer, who established a famous factory in Soho for the manufacture of high quality metal work and other goods. Cumming (1733-1814), mathematician and mechanic, carried on a watchmaking business in Bond Street, London for many years. The

two, with such similar professional interests, must have known each other well.

This was considered to be a "definitive professional textbook."—Taylor, *Mathematical Practitioners of Hanoverian England*. The first part is devoted to a discussion of improvements possible to clock works and the second part is concerned with improvements to watch works.

Fine copy, lacking the leaf of errata, as is often the case. Bookplate of Matthew Boulton.

✦ Baillie, *Clocks and Watches*, p. 270. Baillie, *Watchmakers and Clockmakers of the World*, p. 72. *D.N.B.*, V, p. 296.

26. DOWNING, Samuel. *The Elements of Practical Hydraulics: for the Use of Students in Engineering*. Six folding lithographed plates. iv (i.e. vi), 124 pp. 8vo, orig. brown blindstamped cloth, upper cover & spine lettered in gilt. London: Longman et al., 1855. \$225.00

First edition and somewhat scarce. "Intended as a textbook in practical hydraulics for the school of Engineering at Trinity College Dublin. The first two chapters, which concern the discharge of water from a reservoir with a constant head, and the same discharge with a variable head, are essentially translations from D'Aubuisson's *Traité d'Hydraulique*. . . However, in the third chapter, on the flow of water through pipes, artificial channels, and rivers, he has abandoned D'Aubuisson's complex formula in favor of the simpler one in general use by English engineers. The only dimensions used in this book are the foot and cubic foot, divided decimally."—Roberts & Trent, *Bibliotheca Mechanica*, p. 95.

Very good copy. Bookplates of Union College, Schenectady and Franklin Institute Library. Stamp of Union College on title. Ex Bibliotheca Mechanica.

27. DUCASTAING, J. *Essai sur la Fièvre adynamique, observée à Gaëte, place forte du royaume de Naples, et qui a régné d'une manière épidémique parmi les soldats du vingt-deuxième régiment d'infanterie légère, depuis l'automne de l'année 1811 jusqu'à celui de l'année 1812*. 27 pp. Large 4to, modern marbled wrappers. Paris: Didot jeune, 1815. \$325.00

First edition of this account of an epidemic of typhus which raged amongst the French troops at Gaeta in the years 1811-12. Ducastaing, an assistant surgeon in the French army, describes the symptoms and spread of the disease and provides information on autopsies, treatments employed, and three detailed case histories.

Fine copy. Rare; no copy in OCLC.

The Law of Atomic Heats

28. **DULONG, Pierre Louis & PETIT, Alexis Thérèse.** *Recherches sur la Mesure des Températures et sur les Lois de la Communication de la Chaleur.* One folding engraved plate (foxed). Royal arms printed on title. 2 p.l., 106 pp. Large 4to, cont. wrappers (some foxing & light browning), uncut. Paris: de l'Imprimerie Royale, 1818. \$1500.00

First edition, presentation copy, of this extremely rare and important work which directly led to the establishment of the law of atomic heats by the authors in the following year.

Working on the fundamental problem of measuring quantities of heat, "Dulong and Petit continued their researches in 1817, stimulated by the subjects of the prize to be awarded by the Académie des Sciences in 1818. The first of the three subjects for this prize was to determine the movement of the mercury thermometer as compared with an air thermometer from -20° C. to $+200^{\circ}$ C. They approached the subject by determining the absolute coefficient of expansion of mercury, and to do this they introduced the now classic method of balancing columns... a simple method was now available for direct measurement of the expansion of the mercury without reference to the material of the vessel. A refined version of this apparatus, introduced later by Regnault, became the standard apparatus for determining a liquid's coefficient of absolute expansion...

"The second part of the subject for the Academy's prize was to determine the laws of cooling in a vacuum; Dulong and Petit accordingly undertook a complete re-examination of Newton's law of cooling. The most remarkable feature of their work was the way they broke down a complex phenomenon into its constituent parts and dealt with each factor separately. For example, they distinguished losses due to radiation from those due to contact with particles of a gas."—*D.S.B.*, IV, pp. 238-42—(Dulong).

Very good copy, inscribed on the free front endpaper: "À Monsieur Vallée de la part de M. Dulong son ancien condisciple."

♣ Cardwell, *From Watt to Clausius*, p. 137-45. Petit: *D.S.B.*, X, pp. 545-46.

29. **ERCKER, Lazarus.** *Aula Subterranea Domina dominantium Subdita subditorum. Das ist, Untererdische Hofhaltung, ohne welche weder die Herren regieren, noch die Unterthanen gehorchen können. Oder Gründliche Beschreibung derjenigen Sachen, so in der Tiefe der Erden wachsen, als aller Ertzen der Königlichen und gemeinen Metallen, auch fürnehmster Mineralien, durch welche nächst Gott, alle Künste, Übungen und Stände der Welt gehandhabet und erhalten werden...* Engraved title (a little wormed in lower inner corner, just barely touching the image), woodcut printer's

device on title, & 38 large woodcuts in the text. 8 p.l. (incl. engraved title, last leaf a blank), 332, [4] pp.; 2 p.l., 47 pp. Two parts in one vol. Small folio, cont. vellum MS. over boards (quite browned throughout, some mostly marginal worming). Frankfurt: J.D. Zunner, 1672 [engraved title dated 1673]. \$2250.00

Fifth edition of this finely illustrated technological work; the first edition, issued in 1574 in Prague, is an extremely rare book. The present edition is the first "to contain the important annotations and *Interpres phraseologiae metallurgicae* (glossary of mining terms) of Christian Berward, separately paginated with its own title page dated 1673 . . . This is the first edition to appear with the title *Aula Subterranea*."—Neville, I, pp. 421-22.

This is the first manual of analytical and metallurgical chemistry. Ercker (ca.1530-94), held various mining posts at Dresden, Goslar in the Tyrol, Prague, and elsewhere during a twenty year period. Because of these positions, Ercker acquired extensive experience in chemistry and metallurgy. The present work — the author's magnum opus — offers "a systematic review of the methods of testing alloys and minerals of silver, gold, copper, antimony, mercury, bismuth, and lead; of obtaining and refining these metals, as well as of obtaining acids, salts, and other compounds. The last chapter is devoted to saltpeter. Ercker described laboratory procedures and equipment, gave an account of preparing the cupel, of constructing furnaces, and of the assaying balance and the method of operating it. He used as his model Agricola's *De re metallica*, yet he was quite original and included only the procedures he himself had tested. Ercker was so hostile to alchemy that he did not use alchemical symbols . . ."—*D.S.B.*, IV, p. 393.

Good copy but quite browned.

• Hoover 283. Sisco & Smith, p. 330.

One of His Rarer Books

30. EULER, Leonhard. *Opuscula Varii Argumenti*. Twelve engraved plates. 1 p.l., 300 pp.; 1 p.l., 166 pp.; 1 p.l., 165 pp. Three vols. 4to, cont. speckled sheep (minor rubbing & wear to one joint, some foxing as is usual with this book). Berlin: A. Haude & J.C. Spener, 1746-50-51.

\$8500.00

First edition of one of Euler's scarcer works; this collection contains separate monographs on astronomy, optics, magnetism, electricity, mathematics, and physics and includes several of Euler's most important and fundamental works.

Vol. I deals for the most part with astronomy and optics. It is valuable for Euler's tables of the sun and the moon and his discussion of the problem of perturbations. Euler's studies in astronomy embraced a great variety of problems: determination of the orbits of comets and planets, calculation of the parallax of the sun, the physical nature of comets, celestial mechanics, etc. With

regard to optics, Euler herein rejected the dominant corpuscular theory of light and constructed his own theory in which he attributed the cause of light to peculiar oscillations of ether.

Vol. II is concerned with physics and mathematics. Topics examined here are the propagation of sound and light, analysis, the theory of differential equations, and ellipses.

In Vol. III, "Euler adopts the Cartesian doctrine of pores and magnetic particles, magnetic matter is more subtle than the ether itself and is propagated through a magnet in one direction only, p. 10; declination and dip explained, p. 30."—Wheeler Gift Cat. 366.

A very nice set. Old Jesuit library stamp on each title. Ex Bibliotheca Mechanica with label.

• D.S.B., IV, pp. 467-84. Houzeau & Lancaster 3482. Sotheran, Supp., 2242—"Rare."

His First Book; Illustrated by Gautier d'Agoty Fils

31. FAUJAS DE SAINT-FOND, Barthélemy. *Mémoire sur des Bois de Cerfs Fossiles, Trouvés en creusant un Puits, dans les environs de Montélimar en Dauphiné, à 14 pieds 2 pouces de profondeur, le 28 du mois d'Août dernier (1775).* Four finely color-printed vignettes & one color-printed plate. viii, 24 pp. Large 4to, cont. mottled calf, triple gilt fillet round sides, spine nicely gilt, green morocco lettering piece on spine. Grenoble: J. Cuchet, 1776. \$12,500.00

First edition of Faujas de Saint-Fond's first book, beautifully illustrated by Gautier d'Agoty fils with four finely colored vignettes and one full-page plate. This is an extremely rare book and the first copy I have handled.

The book is concerned with fossilized deer antlers found in wells near Montélimar. Three of the colored vignettes depict butterflies. The fourth vignette depicts a mineral specimen and fully exploits the engraving and coloring technique of the Gautier d'Agoty family. The full-page plate is a magnificent colored depiction of various fossilized deer horns and again the engraving and coloring techniques of Gautier d'Agoty are beautifully realized.

Fine copy. Bookplate of Eugène Chaper (1827-90), son of Achille Chaper who was director of mines at La Mure. The father formed a great collection of books concerning the Dauphiné and Stendhal in his castle at Eybens near Grenoble.

• D.S.B., IV, pp. 548-49. N.B.G., Vol. 17, cols. 168-72.

*"This Remarkable Book"; Privately Printed
A Woman Chemist*

32. FULHAME, Elizabeth. *An Essay on Combustion, with a View to a New Art of Dying and Painting. Wherein the Phlogistic and Antiphlogistic Hypotheses are proved erroneous.* xiii, [2], 182 pp. & slip of errata inserted at end. 8vo, orig. boards (neatly rebacked, slightly browned in the margins), uncut. London: Printed for the Author, by J. Cooper, 1794. \$6500.00

First edition of an extremely rare chemistry book, and most unusual for being written by a woman; I have been looking for a copy of this book for many years.

"Elizabeth Fulhame presumably shared her husband's interests [in chemistry], for in 1794 she published a remarkable monograph, *An essay on combustion*. . . It was favourably noticed by Priestley, Rumford, Herschel, Woodhouse, and others and was the subject of a long review by Coindet. . .

"In her preface the author remarked that in 1780 her husband had deemed improbable 'the possibility of making cloths of gold, silver, and other metals, by chemical processes.' In spite of such connubial discouragement and 'an expense so disproportionate to the fortune which supported it' she persevered. She was well aware of the criticism she might receive from opponents, especially as a woman writing on controversial subjects. It is perhaps not entirely fortuitous that her book was sold by Joseph Johnson, the publisher of Thomas Paine, Joseph Priestley, and Mary Wollstonecraft. . .

"The body of the book details the approach Mrs Fulhame took towards the attainment of her original goal, her crowning achievement being the production of cloth 'maps, the rivers of which are represented in silver, and the cities in gold.' The lengthy, systematic study of the action of various reducing agents (hydrogen, sulphur, phosphorus, charcoal, even light) on metallic salts in aqueous, alcoholic, and ethereal solution was unusual, even unique, for its time. Several incidental observations — the passivation of iron, the production of colloidal gold, and the formation of images by the action of light — have been viewed as foreshadowing discoveries made later and assigned to others. Indeed, late twentieth-century histories of photography include Mrs Fulhame. . .

"Perhaps the most remarkable feature of this remarkable book are Mrs Fulhame's imaginative and iconoclastic views on the nature of combustion, the central problem of late eighteenth-century chemistry. Clearly she was fully familiar with the contending phlogistic and anti-phlogistic theories of those chemically revolutionary years. She postulates a reaction sequence in which water plays the role of what would later be termed a catalyst. No wonder Rumford called her 'the lively and ingenious Mrs Fulhame.' She concludes her essay with an early statement of the ecological dogma: "This view of combustion may serve to show how nature is always the same, and maintains her equilibrium by preserving the same quantities of air and water on the surface of our globe: for as fast as these are consumed in the various processes of combustion, equal quantities are formed, and rise regenerated like the Phenix

from her ashes' . . .

"No other work by Mrs Fulhame exists, and attempts to locate her biographically have so far proven fruitless. Of her significance and interest there is, however, no doubt."—ODNB.

An excellent copy. Ownership of "Puslinch" at head of title.

♣ Cole 495. Eder, *History of Photography*, pp. 116-17, 118, & 734-44. Neville I, p. 489—"very rare." Partington, III, pp. 708-09. This and a German edition of 1798 were the only two editions.

"Made the Heliocentric System a Commonplace"

33. GALILEI, Galileo. *Dialogo . . . sopra I due Massimi Sistemi del Mondo Tolemaico, e Copernicano.* 4 p.l. (lacking frontis.), 458, [32] pp. 4to, 18th-cent. mottled sheep (binding with some careful repairs, stamp on title & final leaf bleached out), spine nicely gilt, red morocco lettering piece on spine. Florence: G.B. Landini, 1632. \$25,000.00

First edition and a very good copy. Our copy is much less browned than is usual with this book. The frontispiece is lacking and our copy is priced accordingly.

"The *Dialogo* was designed both as an appeal to the great public and as an escape from silence. In the form of an open discussion between three friends — intellectually speaking, a radical, a conservative, and an agnostic — it is a masterly polemic for the new science. It displays all the great discoveries in the heavens which the ancients had ignored; it inveighs against the sterility, wilfulness, and ignorance of those who defend their systems; it revels in the simplicity of Copernican thought and, above all, it teaches that the movement of the earth makes sense in philosophy, that is, in physics. Astronomy and the science of motion, rightly understood, says Galileo, are hand in glove. There is no need to fear that the earth's rotation will cause it to fly to pieces. So Galileo picked up one thread that led straight to Newton. The *Dialogo*, far more than any other work, made the heliocentric system a commonplace."—*Printing & the Mind of Man* 128.

Ex Bibliotheca Mechanica.

♣ Cinti 89. Dibner, *Heralds of Science*, 8. Horblit 18c. Sparrow, *Milestones of Science*, 74.

34. GARNIER, Jules. *Avant-Projet d'un Chemin de Fer aérien à Voies superposées. À établir sur les grandes voies de Paris, Système breveté S.G.D.G.* Eight folding lithographed plates (several quite large) & illus. in the text. 43 pp. Small folio, orig. printed wrappers bound in attractive morocco-

backed marbled boards, spine lettered in gilt. Paris: Imprimerie et Librairie Centrales des Chemins de Fer, 1884. \$750.00

First edition and very scarce. Garnier (1839-1894), an engineer with very diverse interests and achievements, is most famous for discovering the large deposits of nickel in New Caledonia, where he was sent as inspector of mines after graduating from the School of Mines at Saint-Étienne. His discovery created an enormous world-wide industry. Upon returning to Paris, he was active in the defense of France in 1870.

The present work reflects another of Garnier's interests: urban transport. In this well-illustrated book, Garnier discusses the necessity for constructing elevated railroads in Paris to relieve traffic congestion, which was becoming an increasing problem. The book includes very detailed information regarding his proposed elevated lines, their construction, the trains, stations, and expenses involved.

The handsome plates depict the proposed elevated railroad (running along Blvd. Montmartre), stations, piles constructed from iron and stone, and a large map of Paris with Garnier's suggested routes highlighted in red.

Fine copy. Ex Bibliotheca Mechanica.

35. GAY-LUSSAC, Joseph Louis. [Drop-title]: *Essai des Potasses du Commerce*. One engraved plate. 32 pp. 8vo, modern marbled boards (some foxing). [Paris: 1829]. \$250.00

First separate edition, a newly paginated offprint from the *Annales de Chimie et de Physique* (1829). The great chemist Gay-Lussac (1778-1850), spent much of his career investigating the properties of potassium and its compounds.

Very good copy and very rare with no copy in OCLC. Old ownership stamp on first leaf.

☛ Poggendorff, I, 863.

36. GELLERT, Christlieb Ehregott. *Metallurgic Chymistry. Being a System of Mineralogy in General, and of all the Arts arising from this Science. To the great Improvement of Manufactures, and the most capital Branches of Trade and Commerce. Theoretical and practical. In Two Parts.* Translated from the Original German of C.E. Gellert, by I.S. [John Seiferth]. Five folding engraved plates. 2 p.l., iii, xv, 186, [3], 188-90, 193-416 pp. 8vo, cont. sheep-backed marbled boards (rubbed), uncut. London: T. Becket, 1776. \$2500.00

First edition in English. Gellert (1713-95), was chief administrator of the foundries and forges at Freiberg and later became professor of metallurgical

chemistry at the famous Freiberg Bergakademie on its foundation in 1765.

The present book is a "very popular work on metallurgical chemistry . . . In this he modified Geoffroy's affinity table by having a table of 28 columns of symbols in which substances having the least affinity with the substance at the head of a column are put at the top, i.e. the reverse of Geoffroy's order. Gellert uses letter symbols in the table."—Partington, II, p. 710.

The plates depict metallurgical furnaces and apparatus.

Very good copy from the library of the distinguished scientist and collector Franz Sondheimer, with his bookplate.

♣ Cole 516. Duveen, pp. 242-43. Neville, I, pp. 512.

37. GINTRAC, Elie. *Recherches analytiques sur diverses Affections dans lesquelles la peau présente une coloration bleue, et en particulier sur celles que l'on a désignées sous les noms de cyanose ou maladie bleue.* vi, [7]-102 pp. Large 4to, modern marbled wrappers. Paris: Didot jeune, 1814.

\$450.00

First edition of this very uncommon and early thesis on cyanosis, a blue coloration of the skin and mucous membranes due to the presence of less than 5g/dl deoxygenated hemoglobin in blood vessels near the skin surface. During cyanosis, tissues are uncharacteristically low on oxygen, and therefore tissues that would normally be filled with bright oxygenated blood are instead filled with darker, deoxygenated blood. Cyanosis can occur in the fingers, including underneath the fingernails, as well as other extremities (called peripheral cyanosis), or in the lips and tongue (central cyanosis).

Gintrac (1791-1877), professor of anatomy at Bordeaux, was appointed director of that city's medical school in 1846. He wrote many medical works, including another on cyanosis.

Fine copy.

♣ Hirsch, II, pp. 752-53.

38. HJÄRNE (or HIÄRNE), Urban. *Actorum Chemicorum Holmiensium . . . cum Annotationibus Joh. Gotschalk Wallerii.* Engraved folding allegorical frontis. & two folding engraved plates. xviii, [2], 283 pp., [7] pp., one leaf of errata; xi, [1], 194, [10] pp. Two vols. 8vo, cont. calf (joints a little cracked but strong, some rubbing), spines gilt, red morocco lettering pieces on spines. Stockholm: L. Salvi, 1753. \$2250.00

Second edition (1st ed.: 1712), greatly enlarged with the addition of an entire second volume, edited by Wallerius. These two volumes contain the account of the work done at the Royal Laboratory in Stockholm during some of its most

fruitful years.

Hjärne (1641-1724), studied medicine at Uppsala, travelled and studied in England, France, and Germany, and was appointed by Charles XI director of the Royal Laboratory in 1683. "The most important result of his travels was an advanced grounding in analytical and experimental chemistry, which he acquired chiefly during three years of study in Paris with the famous Christopher Glaser . . .

"Hiärne and several interested colleagues established a chemical research laboratory, which later became a national institution under the Board of Mines. Hiärne was appointed head of this *Laboratorium Chemicum* and simultaneously was named ordinary assessor at the Board of Mines (he became the board's vice-president in 1713). Hiärne set forth as the main purposes of the laboratory the examination of minerals and ores and the discovery of useful inventions. Extensive pharmaceutical research was also included in his program, and it is clear from detailed records how much Hiärne cherished the field of spagyric pharmacology . . .

"The chemical research program was comprehensive enough to make its full realization exceedingly difficult. But Hiärne's supervision, unusual energy, and outstanding laboratory equipment brought rapid success to the venture, a success evident even in the 1680's. He had capable laboratory workers, the most able of them being Johann Georg Gmelin from Tübingen. The foundations laid by Hiärne, who envisioned the eventual creation of a viable Swedish center for advanced chemical research, proved to be enduring. Following Hiärne's death in 1724, the research program remained virtually at a standstill for several years. But as soon as a qualified successor, Georg Brandt, took over, it soon began anew to foster many of the remarkable advances in Swedish chemistry in the 1700's .

"Hiärne's contributions in applied chemistry included work on improved methods for producing alum and vitriols, on impregnating agents to safeguard trees against rot, and on rust preventatives. In the field of pure chemistry he worked on problems concerning the formation of materials and the composition of bodies and ultimate particles; as his analytical method, he dissolved the substances and then tested them with different reagents and indicators which would elucidate the acid or alkaline nature of the bodies. He also studied alkalies in plants and the phenomenon in metals of increased weight through calcination. He is best known for his work on formic acid, which he produced through the distillation of ant specimens . . .

"A polymath whose breadth of activity stretched over many disciplines, he did outstanding work in each of his fields and was one of the luminaries of Sweden's golden age of science."—*D.S.B.*, VI, pp. 380-81.

Very good set.

• Cole 656. Duveen, p. 296. Partington, III, pp. 162-64.

*"The First Major Revolution in the
Technique of Bleaching"*

39. **HOME, Francis.** *Experiments on Bleaching.* vi, 330 pp. 8vo, cont. calf (rebacked & recornered). Edinburgh: Sands et al., 1756. \$3000.00

First edition of a rare book; it is "the first scientific study of chemical processes employed in bleaching. Written at the request of the board of trustees for the improvement of fisheries and manufactures in North Britain, the text was read to and the 135 experiments described herein were performed before 'the bleachers of this country.' Home attempted to explain the hardness of certain waters, and his experiments proved the effectiveness of adding lime to the lye and the increased speed of bleaching by employing dilute sulphuric acid in souring. His use of volumetric analysis is described."—Neville, I, pp. 653-54.

Home (1719-1813), was professor of materia medica at Edinburgh.

Very good copy.

☛ Cole 659. Ron, *Bibliotheca Tinctoria*, 547—"led to 'the first major revolution in the technique of bleaching.'"

40. **HOPKINSON, John.** *Original Papers.* Edited with a Memoir by B. Hopkinson. Frontis. port. & another port. facing p. xxx in Vol. I., numerous diagrams in the text. lxvi, 294 pp.; vii, 393, [1] pp. Two vols. 8vo, orig. red cloth, spines gilt. Cambridge: at the University Press, 1901. \$250.00

First edition of this collection. Hopkinson (1849-98), was director of the Siemens Laboratory and professor at King's College, London. "The papers in these two volumes were originally published in the *Proceedings* of the Royal Society and in various engineering journals, and were edited for this publication by the author's son, who also wrote the biography of his father . . .

"The first volume contains Hopkinson's papers on electricity and those relating to his work on electric lighthouses. To those have been joined some addresses and his James Forrest lecture on the relation of mathematics to engineering. The second volume comprises two papers on the residual charge of the Leyden jar, papers on the properties of glass, papers on the magnetic properties of metals, on the rupture of iron wire, on thermo-elastic properties of solids, as well as additional papers relating to electricity."—Roberts & Trent, *Bibliotheca Mechanica*, pp. 165-66.

Fine set. Ex Bibliotheca Mechanica.

☛ *D.S.B.*, VI, p. 504.

41. HORNUNG, Johannes, ed. *Cista Medica, qua in Epistolae clarissimorum Germaniae Medicorum, Familiares, & in Re Medica, tam quoad Hermetica & Chymica, quàm etiam Galenica principia, lectu jucundae & utiles, cum diu reconditis Experimentis asservantur. Potissimum ex posthuma... Sigismundi Schnitzeri... Bibliotheca... elaboratae...* Finely engraved title & four woodcuts in the text. 12 p.l., 516 pp. Small 4to, cont. vellum-backed boards, covered with early blue paper (portions of the paper on the spine have perished, some wear). Nuremberg: S. Halbmayr, [Preface dated 1626]. \$1500.00

First edition of this rare collection of letters on medical, chemical, and alchemical subjects written by many leading physicians and chemists of the time, here gathered and edited by Johannes Hornung (fl. 1611-25), physician at Rothenburg in Bavaria.

The contributors include Andreas Libavius (many letters to Schnitzer), Caspar Bauhin, Gregor Horst, Joachim Camerarius (both father and son), Johann Hartmann Beyer, Raimund Minderer, Sigismund Schnitzer (many letters to Libavius), and Thomas Erastus.

Very good copy.

42. HOUGHTON, Thomas. *Rara Avis in Terris, or The Compleat Miner, In two Books; The first containing, The Liberties, Laws and Customs of the Lead-Mines, within the Wapentake of Wirksworth in Derbyshire, in fifty nine Articles, being all that ever was made. The second teacheth, The Art of dialling and levelling Grooves, a thing greatly desired by all Miners, being a subject never written on before by any...* Full-page woodcut illus. on p. 102. 4 p.l., 105, [7] pp. 12mo, cont. sheep over thin wooden boards (one corner worn, upper cover with several scars, light browning), red morocco lettering piece on spine. London: 1681. \$1950.00

First edition, first issue, of a very scarce book. "Dedicated 'To all Miners and Maintainers of Mines within the Wapentake of Wirksworth, or elsewhere: The Author wisheth Happiness and Prosperity in Lead-Mines.' An expert on the laws of mining and its techniques, Houghton (fl. 1680) signs his dedication 'From my Lodging in Warwick-lane, near the Colledge of Physitians, London. Novemb. 12, 1680.' The first part (60 pp.) discusses fifty-nine articles on the legalities of lead mining in Derbyshire, which were originally drawn up on 10 October 1665. The second part describes dialing and the first account of leveling grooves for miners, with examples and numerical tables. Sir Isaac Newton owned a copy of this work, most copies of which were read to pieces by miners, hence its rarity... Parts of the text were reprinted in the English edition of Alvaro Alonso

Barba (London, 1738).”—Neville, I, p. 663.

Very good copy. Final two leaves with unimportant marginal worming. The second issue, published the same year, has a new title-page and the addition of miners' terms (sig. F5).

• Hoover 435.

43. HOUSSARD, Eugène. *Essai sur les Rechutes, ou Récidives dans les Maladies.* 55 pp. Large 4to, modern marbled wrappers. Paris: Didot jeune, 1815. \$375.00

First edition of this very scarce thesis on the causes of medical relapses, taking into account age, personality, sex, and climate. Houssard (1789-1870), did his internship at the Hôtel-Dieu at Paris. He discusses the illnesses most likely to be subject to relapses and methods of combatting them.

Fine copy.

44. INSTRUCTION sur les Moyens de Désinfecter l'Air, D'après les procédés de M. Guyton-Morveau; publiée par le Préfet du département de Lot et Garonne. 1 p.l., 36, [2] pp. 8vo, cont. wrappers, uncut. Agen: R. Noubel, 1805. \$650.00

First edition. Guyton de Morveau's great book on the disinfection of the air — *Traité des Moyens de Désinfecter l'Air* — was first published in 1801. His ideas regarding the efficacy of using chlorine as a disinfectant spread widely to the French provinces and beyond. This book was published at the urging of the local public health authorities.

Very good copy and very rare with no copy in OCLC.

45. JACOB, Antoine. *Dissertation sur la Colique de Madrid.* 35 pp. Large 4to, modern marbled wrappers. Paris: Didot jeune, 1815. \$275.00

First edition of this rare thesis — no copy in OCLC — on an epidemic of colic amongst children and adults which occurred in Madrid over an extended period of time. The author, an assistant surgeon in the French army, provides several case histories and describes the symptoms and treatments.

Fine copy.

*The Second Edition of "One of Kircher's
Most Curious Works"*

- 46. KIRCHER, Athanasius.** *Iter Extaticum Coeleste . . . hac secundâ editione Praelusionibus & Scholiis illustratum . . . a P. Gaspare Schotto . . . Accessit . . . Iter Exstaticum Terrestris, & Synopsis Mundi Subterranei.* Added engraved title, finely engraved arms on verso of printed title, & 12 engraved plates. 12 p.l. (incl. added title), 689, [18] pp. Thick 4to, cont. sheep-backed speckled boards (minor foxing), spine richly gilt. Würzburg: Heirs of J.A. & W.J. Endter, 1660. \$5500.00

Second edition, enlarged and edited by the author's friend and disciple Gaspar Schott, of Kircher's only work devoted entirely to astronomy; the first edition was published in 1656 with the title *Itinerarium exstaticum*.

"*Itinerarium exstaticum* is one of Kircher's most curious works. He wrote the treatise in the form of a narrative in which a certain Theodidactus — Kircher himself — is caught up in a dream-vision or an ecstatic journey and is guided through the heavens by a spirit named Cosmiel . . . In the first dialogue, Kircher recounts the journey to the moon, which he finds scarred with mountains and craters, contrary to the Aristotelian view. He flies on to Venus, which he discovers is made of the four elements, and so on to each of the other planets and through the region of the fixed stars. The sun itself has blemishes, Kircher proclaims. He himself had seen sunspots through a telescope several years earlier . . .

"Kircher rejected the Aristotelian and Ptolemaic cosmologies in favor of that of Tycho Brahe (1546-1601), who argued that the sun orbits the earth and is in turn orbited by the planets and the fixed stars. The Tychonian system was adopted by most of Kircher's fellow Jesuits, since it allowed them to maintain geocentric orthodoxy while espousing, at least in part, the new, more scientific heliocentricity advocated by the Copernicans. Kircher broaches this subject more directly in the second dialogue, where he deals with the creations of the earth, its position in the universe, its various characteristics and limitations, and finally, its eventual destruction. To support his views Kircher cites scriptural and scientific authorities in his conclusion. Among the latter are the astronomer Johannes Hevelius, the influential astronomer and meteorologist Gottfried Wendelin, Galileo, and other less-orthodox scientists of his day. This scientific, religious, and semi-mystical work testifies to Kircher's dubious poise at the juncture of two ages."—Merrill, *Athanasius Kircher*, pp. 26-27.

Fine copy. Engraved armorial stamp of "Bibliotheca Raschkiana" on title.

♣ Merrill, *Athanasius Kircher*, 12.

The "Ganguillet-Kutter Formula"

47. **KUTTER, Wilhelm Rudolph.** *The New Formula for Mean Velocity of Discharge of Rivers and Canals...* translated from Articles in the 'Cultur-Ingénieur' by Lowis D'A. Jackson. Folding lithographed frontis. & one lithographed plate. Numerous tables in the text. x, [1], 95, cxl pp. 8vo, orig. blue cloth (a little tired, upper hinge cracked but very strong), spine gilt. London: E. & F.N. Spon, 1876. \$250.00

First edition in English. "The present work first appeared in German in 1870, and was immediately translated into French, Dutch, and Italian. The text is divided into two chapters, the first on flow in open channels generally, and the second on the flow in open channels in earth. This is followed by three tables which give the coefficients of mean velocity of discharge, discharges and mean velocities per second, with a supplementary table of percentages for certain sections. The two plates at the end [actually, at the front] illustrate the trapezoidal sections of channels adopted in the tables and the diagram of coefficients of mean velocity."—Roberts & Trent, *Bibliotheca Mechanica*, p. 188.

Kutter (1818-88), the Swiss engineer, worked under Emile Oscar Ganguillet (1818-1894) at the Department of Public Works at Bern. Kutter, who was already interested in channel resistance, tested Humphreys' and Abbot's formula, comparing its indications with measurements on Swiss mountain streams. His conclusion was that their formula was limited to relatively gentle slopes and that roughness would need to be taken into account. With Ganguillet, Kutter conducted many experiments in mountain streams, determining constants, and proposed mean values for the degree of roughness to be factored into their "generalized" formula for channel resistance.

Very good copy. Ex Bibliotheca Mechanica.

• Rouse and Ince, *History of Hydraulics*, pp. 177-79.

His First Major Publication

48. **LAVOISIER, Antoine Laurent.** *Opuscules Physiques et Chymiques.* Three folding engraved plates. 1 p.l., xxx, [2], 434, [six cancelled leaves], 435-36 pp. Two parts in one vol. 8vo, cont. speckled calf (joints & ends of spine carefully repaired), flat spine gilt, red morocco lettering piece on spine. Paris: Durand, Didot le jeune, & Esprit, 1774. \$3500.00

First edition, mixed issue, of this "pioneer work in which [Lavoisier] first gives a historical survey of previous workers' efforts and then describes his own experiments on gases and the conclusions to be derived from them."—Duveen & Klickstein, p. 94.

This copy has one dedication leaf following the title (pp. i-ii) and six cancelled

leaves bound between pages 434 and 435.

A very good copy.

♣ Cole 769. Duveen & Klickstein 121. Neville, II, p. 19—"It exerted a tremendous influence on Continental chemists and set the sage for Lavoisier's overthrow of the phlogiston theory."

49. LAVOISIER, Antoine Laurent. *Essays Physical and Chemical... Volume the First* [all published]. Translated from the French, with Notes, and an Appendix, by Thomas Henry. Three folding engraved plates. xxxii, [2], 475 pp., one leaf of ads. 8vo, cont. speckled calf (carefully rebacked), flat spine gilt, red morocco lettering piece on spine. London: J. Johnson, 1776. \$3000.00

First edition in English of the *Opuscles Physiques et Chymiques*. "Dedicated to the president of the Royal Society, Sir John Pringle, this translation... was carried out by Thomas Henry with the assistance of John Aikin. A close version of the French original, omitting only the *Rapport*, it contains a laudatory preface by Henry and footnotes he added throughout the text. The important appendix (pp. 405-428) is the first English edition of the first version of Lavoisier's famous 1775 memoir, in which he correctly explained the composition of the atmosphere and the role of oxygen in the calcination of metals and respiration (see Garrison-Morton, 922). It is followed by Henry's account of Priestley's opinions on his discovery of oxygen and its reaction with metals to form cakes. Although the title states that this is the first volume, no others appeared."—Neville, II, p. 19.

A very good and pretty copy with the leaf of ads at end.

♣ Cole 771. Duveen & Klickstein 124.

50. LAVOISIER, Antoine Laurent. *Opuscles Physiques et Chymiques... Seconde Édition*. Three folding engraved plates. xxx, [2], 443 pp. Two parts in one vol. 8vo, cont. half-sheep & speckled boards, flat spine gilt, blue morocco lettering piece on spine. Paris: Deterville, 1801. \$1250.00

Second edition. "The genuine second edition in which Deterville has reprinted the entire book with the errata corrected in the text and with the plates reengraved by Tardieu senior. Another so-called *seconde édition* published in 1801 is merely a reissue of the first edition, with the replacement of the dedication leaf to Trudaine de Montigny by a half title and a new title page, and with the same plates as the 1774 issue. The present edition is the first new printing of the *Opuscles* since Lavoisier's death in 1794."—Neville, II, p. 19.

A very fine copy.

♣ Cole 769. Duveen & Klickstein 123. Neville, II, p. 19—"It exerted a

tremendous influence on Continental chemists and set the stage for Lavoisier's overthrow of the phlogiston theory."

*The Most Important Milestone in the Development
of Chemical Nomenclature*

51. LAVOISIER, Antoine Laurent et al. *Méthode de Nomenclature Chimique, Proposée par MM. de Morveau, Lavoisier, Bertholet, & De Fourcroy. On y a joint un nouveau Système de Caractères Chimiques, adaptés à cette Nomenclature, par MM. Hassenfratz & Adet.* One large folding printed table & six folding engraved plates. 2 p.l., 314 pp. 8vo, cont. mottled calf, red morocco lettering piece on spine. Paris: Cuchet, 1787. \$2250.00

First edition, second issue, of one of the key books in the history of modern chemistry. Lavoisier's discoveries made a new and rational chemical nomenclature imperative. Initiated by Guyton de Morveau, still an adherent of the phlogiston theory, the project was taken up by Lavoisier, who soon convinced Guyton of the truth of his system. They entered into collaboration with Berthollet and Fourcroy. The result of their combined efforts is contained in the present volume, the most important milestone in the development of chemical nomenclature. The new nomenclature, with only slight modifications, is still the basis of the language of modern chemistry.

In the second printing of the first edition, the following pages are misnumbered: 241-56 instead of 257-72.

Very nice unpressed copy. Old stamp of "JBM" on title and booklabel of Clocher on half-title.

♣ Cole 566. Duveen & Klickstein 129. Neville, I, pp. 564-65. Sparrow, *Milestones of Science*, p. 27 and plate 113.

*"One of the Great Milestones in the History
of Chemical Literature"*

52. LAVOISIER, Antoine Laurent. *Traité Élémentaire de Chimie, présenté dans un Ordre nouveau et d'après les Découvertes modernes...* Two folding printed tables & 13 folding engraved plates, drawn & engraved by Madame Lavoisier. xlv, 322 pp.; viii, [323]-653, [2] pp. of errata. Two vols in one. 8vo, cont. mottled sheep (joints carefully repaired, some foxing), spine gilt. Paris: Cuchet, 1789. \$4000.00

First edition, second issue (the first issue is known only in about three copies). "One of the great milestones in the history of chemical literature. By common consent modern chemistry begins with this work, 'which finally freed the science from its phlogiston chains and formed the starting point of its modern

progress. It may be said to have done almost as much for chemistry as Newton's *Principia* did for physics' (Zeitlinger). Lavoisier used the balance to demonstrate the weight of matter at every chemical change, defined the terms element and compound, explained combustion and the rusting of metals as a chemical combination with oxygen, and through his concept of the conservation of matter developed methods of chemical analysis. The book contains the first list of twenty-three chemical elements and their compounds. An incomplete first issue in one volume (known in only about three copies) was circulated by Lavoisier, but he quickly decided that the book should be in two volumes."—Neville, II, p. 21.

Good copy, preserved in a box.

♣ Cole 775. Dibner, *Heralds of Science*, 43. Duveen & Klickstein 154—"a truly modern text and it laid the foundations of modern chemistry." Evans, *Exhibition of First Editions of Epochal Achievements in the History of Science* (1934), 53. *En Français dans le Texte* 184. Horblit 64. *Printing & the Mind of Man* 238. Sparrow, *Milestones of Science*, 127.

53. LAVOISIER, Antoine Laurent. *Elements of Chemistry, in a New Systematic Order, containing All the Modern Discoveries . . .* Translated from the French, by Robert Kerr. Two folding printed tables & 13 folding engraved plates (plate 11 with short tear touching image). I [i.e., 50], 511 pp. 8vo, cont. blue-paper boards, nicely rebacked with old paper, uncut. Edinburgh: W. Creech, 1790. \$2500.00

First edition in English of the first edition of the *Traité* "and the only one on which all English and American editions are based. This careful translation introduced English-speaking chemists to Lavoisier's epoch-making theories. The Scottish translator Robert Kerr (1755-1813), an ardent supporter of Lavoisier's antiphlogistic chemistry, states in his advertisement (p. viii): 'A few explanatory notes are added [and] some parenthetical expressions, only relative to the subject, which, in their original place, tended to confuse the sense.' Some alterations have been made in the tables in the appendix to accommodate the English reader: e.g., rules for converting French weights and measures are added and temperatures are given in degrees Fahrenheit."—Neville, II, p. 24.

Very good uncut copy with half-title, preserved in a box.

♣ Cole 782. Duveen & Klickstein 163.

- 54. LAVOISIER, Antoine Laurent.** *Trattato Elementare di Chimica presentato in un Ordine nuovo dietro le Scoperte moderne.* Two folding printed tables & 13 folding engraved plates. Four vols. 8vo, cont. limp boards (Vol. III sympathetically rebaked to match), uncut. Venice: A. Zatta & Sons, 1792. \$1250.00

Second edition of the Dandolo translation into Italian; this edition contains some additional notes and corrections. Volume III, entitled *Esame delle Affinità Chimiche*, is Dandolo's translation of parts of the essay on chemical affinity by Guyton de Morveau in the *Encyclopédie Methodique*. Volume IV is Dandolo's adaptation in Italian of the "Synonimie" and the "Dictionnaire" of the *Nomenclature Chimique* (Paris, 1787).

Dandolo (1758-1819), a wealthy Venetian, occupied himself with the breeding of sheep, the production of silk, the manufacture of grape sugar, and oenology; he wrote on these and other economical subjects.

Very good set with half-titles. Bookplate of the "Bibliothecae Nobilis Collegii Ptolemaei." Some light staining to the early leaves of Vol. III. The first edition in Italian appeared in 1791.

♣ Cole 793. Duveen & Klickstein 150 & 181. Neville, II, p. 26.

The Pirated Edition

- 55. LAVOISIER, Antoine Laurent.** *Traité Élémentaire de Chimie, présenté dans un Ordre nouveau et d'après les Découvertes modernes. . . . Seconde Édition.* Two folding printed tables & 13 folding engraved plates, drawn & engraved by Madame Lavoisier. xlv, 322 pp.; viii, 327 pp. Two vols. 8vo, cont. calf-backed paste-paper boards, flat spines gilt, green morocco lettering pieces on spines. Paris: Cuchet, 1793. \$1250.00

The rare pirated "second" edition, printed by de Boiste, and issued without the knowledge or authorization of Lavoisier.

Very good set.

♣ Cole 777. Duveen & Klickstein 156. Neville, II, p. 21-23.

- 56. LAVOISIER, Antoine Laurent.** *Traité Élémentaire de Chimie, présenté dans un Ordre nouveau et d'après les Découvertes modernes. . . . Seconde Édition.* Two folding printed tables & 13 folding engraved plates, drawn & engraved by Madame Lavoisier. xlv, 322 pp.; viii, 331 pp. Two vols. 8vo, antique sheep-backed marbled boards (some foxing), flat spines gilt. Paris: Cuchet, 1793. \$1250.00

Although described as the "seconde édition" on the title, this seems to follow a pirated "seconde édition" printed by de Boiste earlier in the same year. Our

edition was printed by Chardon.

Very good set.

♣ Cole 778. Duveen & Klickstein 157. Neville, II, p. 23.

57. LAVOISIER, Antoine Laurent. *Elements of Chemistry, in a New Systematic Order, containing All the Modern Discoveries . . .* Translated from the French, by Robert Kerr . . . Second Edition, with Notes, tables, and considerable Additions. Two folding printed tables & 13 folding engraved plates. xlvii, [49]-592 pp. 8vo, cont. marbled calf (joints & ends of spine carefully repaired). Edinburgh: W. Creech, 1793. \$1750.00

Second edition of the Kerr translation, with an additional eighty-one pages of new material and the type completely reset. Weights have been converted to English units and the temperatures are given in degrees Fahrenheit. Plate XI contains for the first time an important change (see Duveen & Klickstein, p. 159 for a discussion). This edition was published because the first edition of 1790 was exhausted.

Very good copy. Early engraved bookplate of Giulio Doria. Signature of Mr. R. M. Thomas, August 1811 and "Gul. Bolts." William Bolts (1739-1808), was a merchant, speculator, and adventurer in India (see ODNB for more about this fascinating man).

♣ Cole 783. Duveen & Klickstein 166. Neville, II, p. 24.

58. LAVOISIER, Antoine Laurent. *Elements of Chemistry, in a New Systematic Order, containing All the Modern Discoveries . . .* Translated from the French, by Robert Kerr . . . Fourth Edition, with Notes, Tables, and considerable Additions. Two folding printed tables & 13 folding engraved plates (several of the plates are slightly soiled). [iii]-xlvii, [49]-592 pp. 8vo, cont. calf (joints & ends of spine carefully repaired), red morocco lettering piece on spine. Edinburgh: W. Creech, 1799.

\$1250.00

Fourth edition of the Kerr translation. It was upon this edition that the American editions of 1799 and 1801 were based.

Very good copy, lacking half-title.

♣ Cole 785. Duveen & Klickstein 168. Neville, II, p. 25.

- 59. LAVOISIER, Antoine Laurent.** *Traité Élémentaire de Chimie, présenté dans un ordre nouveau et d'après les découvertes modernes. . . Troisième Edition, corrigée et augmentée de plusieurs Mémoires nouveaux.* Two folding printed tables & 13 folding engraved plates, drawn & engraved by Madame Lavoisier. xliv, 386 pp.; vii, 377, [1] pp. Two vols. 8vo, cont. calf-backed paste-paper boards (joints & ends of spines carefully repaired), flat spines gilt, green morocco lettering pieces on spines. Paris: Deterville, 1801. \$1250.00

Third edition, with important additions. For the first time, the first two of the three papers Lavoisier wrote on respiration are reprinted in this work, as well as his two memoirs on transpiration, the second of which had not been previously published.

Very good set with half-titles.

♣ Cole 780. Duveen & Klickstein 159. Neville, II, p. 23-24.

- 60. LEMERY, Nicolas.** *Cours de Chymie, contenant la Manière de faire les Operations qui sont en usage dans la Medecine, par une methode facile. Avec des Raisonnemens sur chaque Operation, pour l'Instruction de ceux qui veulent s'appliquer à cette Science.* 17 p.l. (the first a blank), 584, [29] pp. Small 8vo, modern marbled boards (some foxing). Paris: chez l'Autheur, 1677 [colophon leaf dated 1676]. \$1500.00

Second edition, "reveuë, corrigée & augmentée par l'Autheur." Lemery (1645-1715), was one of the most influential chemists of his time. He gave lectures in Paris known for being clear and simple on the principles of chemistry. The present work is the textbook of his course of lectures. Lemery's textbook enjoyed unprecedented success and went through many editions in French, English, Italian, German, Spanish, Dutch, Latin, etc.

The early editions of Lemery's textbook were sold by him from his house in Paris and tend to be very rare.

Apart from the occasional foxing, a very good copy.

♣ D.S.B., VIII, pp. 172-75. Duveen, pp. 347-78. Partington, III, pp. 28-41.

- 61. LICHTENSTEIN, Georg Rudolph.** *Entdeckte Geheimnisse, oder Erklärung aller Kunstwörter und Redensarten bey Bergwerken und Hütten-Arbeiten nach Alphabetischer Ordnung in zween Theilen.* 4 p.l., 122 (i.e. 222) pp. 8vo, cont. speckled boards (title with a marginal repair obscuring one letter). Helmstedt: J.H. Kühnlin, 1778. \$1250.00

First edition of this very rare and valuable dictionary of mining, iron-making, smelting, and glassmaking terms and processes. Approximately 2500 words and

terms are defined.

Lichtenstein (1745-1807), professor of medicine at the University of Helmstedt, wrote numerous works on chemistry.

Very good copy.

♣ Ferchl, p. 314. Poggendorff, I, 1453.

62. LIMAYRAC, J.P. *Dissertation sur les soins que l'accoucheur doit donner à la femme pendant le travail de l'enfantement, et sur ceux qu'il doit donner à l'enfant nouveau-né.* 17 pp. Large 4to, modern marbled wrappers. Paris: Didot jeune, 1815. \$250.00

First edition of this very rare thesis — no copy listed in OCLC — on the measures obstetricians must take during childbirth and the immediate aftercare of the baby.

Fine copy.

63. MAREY, Étienne Jules. *Animal Mechanism: a Treatise on Terrestrial and Aërial Locomotion.* 117 text illus. xvi, 283 pp. 8vo, orig. cloth. New York: D. Appleton, 1874. \$150.00

First American edition. "After 1868 Marey turned to a more novel area for the application of recording devices — the study of human and animal locomotion. Marey worked out a method by means of which he succeeded in recording the movements of a galloping horse in the form of a series of lines on paper (chronography). As a result of these observations it was found that, in galloping, a horse supports itself first on one leg, then on three, on two, and finally again only on one."—Hagelin, *Kinetic Jottings*, p. 169.

Very good copy. Ex Bibliotheca Mechanica.

64. MAREY, Étienne Jules. *Movement.* Translated by Eric Pritchard. 200 illus. in the text. xv, 323 pp. 8vo, orig. red blind-stamped cloth, spine lettered in gilt. London: W. Heinemann, 1895. \$250.00

First edition in English (1st ed.: *Le Mouvement*, 1894). This is a comprehensive summary of Marey's work on the animated picture, containing the history of the invention of cinematography.

Very good copy. Bookplate of E.N. da C. Andrade. Ex Bibliotheca Mechanica.

♣ *En Français dans le Texte* 318—(1st ed.). Garrison-Morton 643—(1st ed.)—"Marey, like Muybridge, was a pioneer in the use of serial pictures as a method of studying the mechanics of locomotion."

65. (MAREY, E.J.). *Travaux de l'Association de l'Institut Marey*. By MM. Chauveau, Kronecker, Athanasiu, Waller, Errera [Vol. I] & MM. J. Carvallo, L. Bull, Noguès, J. Barcroft, W. Einthoven, K. Hürthle, Ch. Richet, J. Ries, J. Tissot, Waller, G. Weiss, Otto Weiss, G. Ioachim [Vol. II]. Frontis. port., 12 photographic plates, & numerous illus. in the text. 2 p.l. (incl. port.), 148, [1] pp.; 2 p.l., 338 pp. Large 8vo, orig. printed wrappers, uncut. Paris: Masson, 1905-10. \$500.00

First edition, all published. Following Marey's death in 1904, Professor Lucien Bull and others at the Institut Marey in Paris continued the researches to which its founder had devoted his life. Their work is published here.

Fine set in original state, preserved in a box. Ex Bibliotheca Mechanica.

66. MARTENS, Adolf & GUTH, Max. *Das Königliche Materialprüfungsamt der Technischen Hochschule Berlin auf dem Gelände der Domäne Dahlem beim Bahnhof Gross-Lichterfelde West*. Double-page folding lithographed frontis. depicting the testing laboratory building & surrounding grounds, five folding lithographed plates, & more than 360 photographic illus. & diagrams in the text. iv, 380 pp. Large 4to, modern calf-backed marbled boards (a few leaves slightly chipped but with no loss of text). Berlin: J. Springer, 1904. \$350.00

First edition of this handsome and detailed account of the newly constructed testing laboratory of the Königs Technischen Hochschule in Berlin, the best of the time. The rooms and equipment are described and illustrated. This is a most interesting record of the equipment and facilities of the finest testing laboratory at the turn of the century.

Very good copy. Ex Bibliotheca Mechanica.

67. MARTIN, Benjamin. *An Essay on Electricity: Being an Enquiry into the Nature, Cause and Properties thereof, On the Principles of Sir Isaac Newton's Theory of Vibrating Motion, Light and Fire; and the various Phaenomena of Forty-two Capital Experiments; with some Observations relative to the Uses that may be made of this Wonderful Power of Nature*. 40 pp. 8vo, disbound (title a little stained). Bath: Printed for the Author . . . , 1746. \$950.00

First edition. Martin (1704-82), was famous as a maker and seller of scientific instruments and as a lecturer/demonstrator in natural philosophy. He was one of the great popularizers of science in the mid-18th century, writing many

compilations and popular expositions on scientific topics.

Very good copy.

• *D.S.B.*, IX, pp. 141-42. Wheeler Gift Cat. 327—"Electricity is regarded as a kind of subtle matter, the various phenomena being produced by its vibrations; analogy between lightning and electricity, p. 19."

68. MATHIEU, Émile Léonard. *Théorie de l'Élasticité des Corps Solides... Première Partie. Considérations générales sur l'élasticité. Emploi des coordonnées curvilignes. Problèmes relatifs à l'équilibre d'élasticité. Placques vibrantes. [Seconde Partie. Mouvements vibratoires des corps solides. Équilibre d'élasticité des lames courbes et du prisme rectangle].* Two vols. viii, 219 pp.; 2 p.l., 184 pp. Large 4to, orig. printed wrappers, uncut. Paris: Gauthier-Villars, 1890. \$750.00

First edition. Mathieu (1835-90), professor of mathematics at Nancy, belongs to the great French tradition of mathematical physicists; he contributed to the field of partial differential equations.

"These two volumes on the theory of the elasticity of solid bodies form parts six and seven of his *Traité de physique mathématique* [these are volumes 6 and 7; each was published independently]. The first volume discusses the theory of elasticity, use of curvilinear coordinates, and problems regarding the equilibrium of elastic and vibrating plates. The second considers vibrations of solid bodies and the elastic equilibrium of thin curving plates and that of rectangular prisms. The work is a natural extension of that of Sophie Germain."—Roberts & Trent, *Bibliotheca Mechanica*, p. 220.

Fine set in original condition, preserved in a cloth-covered box.

• *D.S.B.*, IX, pp. 174-75.

69. MENZINI, Benedetto. *De Literatorum Hominum invidia. Liber ad... Franciscum Redi. Nunc primùm prodit.* Title printed in red & black. 76 pp. Small 8vo, cont. blue speckled wrappers. Florence: A. de Bonardis & L. de Lutis, 1675. \$650.00

First edition and rather scarce of this rare monograph on ill will amongst men of letters. Menzini (1646-1704), poet and priest, went to Rome in 1685 "and enjoyed the favour of Queen Christina of Sweden, until her death in 1689. Pope Innocent XII then gave him a canonry, and appointed him to a chair of rhetoric in one of the institutions of the city of Rome."—*Catholic Encyclopedia*.

In the present work and in many of his poems Menzini assails in acrid terms the hypocrisy prevailing in Tuscany in the last years of the Medici rule.

Fine copy.

70. **MICHELINI, Famiano.** *Trattato della Direzione de' Fiumi nel quale si dimostrano da' suoi veri principi i modi più sicuri, e meno dispendiosi di riparare a' danni, che sogliono farsi dall' Acque.* Nine folding engraved plates. Title printed in red & black. 7 p.l., 151, [1] pp. Small 4to, 18th-cent. speckled English calf (corners a little rounded, some rubbing), red morocco lettering piece on spine. Florence: Stella, 1664. \$1500.00

First edition of the only book published by the author during his lifetime. Michelini (1604-65), a friend of Galileo and Castelli, was professor of mathematics at Pisa. He was acknowledged by his contemporaries as an expert on hydraulics and was consulted on such problems as the silting in the Venetian lagoon and control of the Arno at Pisa. He suggested that river beds be protected and repaired by bulkheads filled with stones, and proposed a theory explaining why the current is faster in the middle of a stream than near its banks, relating the velocity of current to the gradient of the river bed.

The present work was a source for Guglielmini's fundamental treatise *Della Natura de' Fiumi* (1697).

Very good copy. Bute bookplate. Ex Bibliotheca Mechanica.

• *D.S.B.*, IX, pp. 369-70. Riccardi, II, 156—"Questa bella e rara ediz." Roberts & Trent, *Bibliotheca Mechanica*, p. 224—"This work discusses flow, resistance, flow characteristics of different sorts of rivers, etc. Many of the later chapters are devoted to techniques for altering the course or the flow characteristics of a river, preventing flooding, etc."

71. **MOLLARD, Charles Louis.** *Essai sur l'Hygiène des Femmes enceintes...* vi, [7], 37 pp. Large 4to, modern marbled wrappers. Paris: Didot jeune, 1815. \$350.00

First edition of this very uncommon gynecological thesis concerning the measures which should be taken by women to ensure a successful pregnancy. The author discusses diet, proper clothing, environment, physical activity, etc.

Fine copy.

First Classical History of Mathematics

72. **MONTUCLA, Jean Étienne.** *Histoire des Mathématiques, dans laquelle on rend compte de leur progrès depuis leur origine jusqu'à nos jours; où l'on expose le tableau et le développement des principales découvertes dans toutes les parties des Mathématiques, les contestations qui se sont élevées entre les Mathématiciens, et les principaux traits de la vie des plus célèbres.* Two fine engraved frontis. ports. & 45 folding engraved plates. Four vols. Large

4to, cont. marbled boards, well-rebacked to style in calf, flat spines gilt, red morocco lettering pieces on spines. Paris: H. Agasse, 1799-1802.

\$2750.00

Second edition, improved and greatly enlarged, of the first classical history of mathematics which is today still indispensable as it contains much information not to be found elsewhere. This history, which was first published in 1758, is considered to be the author's masterpiece. Not only does Montucla provide a comprehensive history of the development of mathematical ideas throughout the 18th century, but he also includes mechanics, astronomy, music, mathematical geography, and navigation.

Montucla (1725-99), died before the last two volumes of the second edition were written. Lalande, his friend from childhood, assisted by others, completed the final two volumes.

Fine set. Old library stamp on each title. Ex Bibliotheca Mechanica.

The First Description of the Calculating Machine

73. **NAPIER, John.** *Rabdologiae seu Numerationis per Virgulas libri duo: Cum Appendice de expeditissimo Multiplicationis promptuario. Quibus accessit & Arithmeticae Localis Liber unus.* Nine folding tables (woodcut & letterpress), & numerous woodcut diagrams & tables in the text. 6 p.l., 139 pp., 2 blank leaves. 12mo, cont. mottled calf (very slightly rubbed), panelled in gilt. Leyden: P. Rammasen, 1628. \$12,500.00

Third edition; this edition is much rarer than the first edition of 1617. This is the first description of a calculating machine.

"In 1617 Napier's intense concern for the practicalities of computation led him to publish another book, the *Rabdologiae*, which contains a number of elementary calculating devices, including the rods known as 'Napier's bones.' These rods, which in essence constitute a mechanical multiplication table, had a considerable vogue for many years after his death."—*D.S.B.*, IX, p. 610—(& see the rest of the article for more details).

Nice crisp copy.

♣ Dibner 107—(1st ed.). See *Printing & the Mind of Man* 116—(in this work Napier "announced another important invention, 'Napier's Bones' . . . They were the precursors of seventeenth-century and modern calculating machines and computers."

74. **[NAU, Bernhard Sebastian von & others].** *Der erfahrne und in allen Weinkünsten wohl unterrichtete Weinhändler, Weingärtner und Weinkellermeister. Oder: Praktischer Unterricht, den Weinbau auf die vortheilhafteste Art zu betreiben. . . . Nebst einem Anhang von den verschiedenen*

Behandlungsarten des Bieres, Meths, Essigs, und von einigen Weinkünsten des Theophrastus Paracelsus. Vierte mit Cadet-de-Veaux Anweisung zu der Kunst Weine zu bereiten vermehrte Auflage. 319 pp. 8vo, cont. speckled boards (some foxing). Graz: C.F. Trötscher, 1804. \$1500.00

First edition of this collection of texts dealing with the growing of wine grapes, the making of wine, and the wine trade. Much of the text is taken from Nau's *Praktische Anweisung über den Weinbau* (1804). Nau (1766-1845), was professor of natural history at the University of Mainz and, later, professor of the same subject at the Forestry School at Aschaffenburg. He was also conservator of the mineralogical collection at Munich.

Cadet de Vaux's *Instruction sur l'Art de faire le Vin* (1801) has also been appended along with several other texts.

Very good copy and very rare; not in OCLC nor Schoene.

75. NAVIER, Claude Louis Marie Henri. *Résumé des Leçons d'Analyse données à l'École Polytechnique...* suivi de Notes par M. J. Liouville...Deuxième Édition, revue par M. Ernest Liouville. Three folding lithographed plates (foxed). viii, 367 pp.; vi, 368 pp. Two vols. in one. 8vo, cont. red half-morocco & marbled boards (extremities a little rubbed, some foxing), spine gilt. Paris: V. Dalmont, 1856. \$250.00

Second edition, revised and with notes by Joseph Liouville (1809-82), professor of mathematics at the Collège de France. This was a standard textbook of the day.

Apart from the considerable foxing, a very good copy. Ex Bibliotheca Mechanica.

By the Creator of the Plans for the Suez Canal

76. (NEGRELLIHO VIADUCT). "Detail-Plan des Viaductes über das Moldau-Thal bei Prag der k.k Staats-Eisenbahn von Prag nach Dresden." A series of 17 connected panels, each measuring 305 x 463 mm. and mounted on cloth, depicting in very fine watercolors the entire length of the bridge, the materials used, cross-sections of piers and abutments, foundations, etc. A preliminary panel contains in MS. an elaborately ornate dedication (see below). 18 panels in total, folded in accordion fashion. Bound in elaborately gilt dark blue velvet over boards. Prague: ca. 1850. \$12,500.00

A magnificent depiction in superb watercolor of the construction and

realization of one of the most important stone arch railroad bridges of the 1840s; it was for many years the longest bridge north of the Alps. The “Negrelliho Viadukt” (or “Negrellibrücke”) was designed and the construction was overseen by Luigi (or Alois) Negrelli (1799-1858), the engineer and railroad pioneer active in Switzerland, Austria, and Italy. He built the first Swiss railroad, from Zurich to Baden, and also constructed the Münster bridge in Zurich. In 1840, Negrelli returned to Austria and until 1857 was inspector for the Austrian railways. He then moved to Veneto-Lombardy, with the task of overseeing public buildings, railways and telegraph lines construction, and traffic on the River Po. He was the creator of the plans for the Suez Canal, which was later built by Ferdinand de Lesseps. Other significant works for which Negrelli is responsible include an important set of road works in the Pusteria and Adige Valleys, the rearrangement of the Rhine River bed from Liechtenstein to the Lake of Constance, and the construction of roads and wharves in Zurich.

The Negrelli bridge, which crosses the Moldau River and is still in use, consists of 85 arches, with span lengths ranging from 6.4–25.3 meters. The second oldest bridge in Prague, it was constructed between 1846 and 1850 and is considered the most beautiful and longest railway bridge in Prague. More than one kilometer long and linking Prague with Dresden, it comes from Karlin to Holesovice over the Stvanice island, connecting the main railway station to the Bubny station. It is the longest bridge/viaduct in the Czech Republic and was constructed with crushed stone, sandstone, and Bohemian granite.

The first panel contains an elaborate calligraphic dedication to Alois Silverius Ritter von Kremer, an official of the Royal Mint and Mines. It is signed by the Klein brothers. Franz Klein (1794-1855), built the tunnels of the Semmering line.

In fine condition.

The First Illustrated Edition of Neri

77. **NERI, Antonio.** *De Arte Vittraria Libri Septem, & in eosdem Christoph. Merretti . . . Observationes & Notae. in quibus omne gemmarum artificialium, encaustorum & laccarum artificium explicatur.* Added engraved title & six folding engraved plates. 14 p.l. (incl. frontis), 455, [17] pp. 12mo, cont. vellum over boards. Amsterdam: A. Frisius, 1668. \$1250.00

First Latin edition; this was an important edition as it was the first to be illustrated. This classic work on the manufacture of glass contains the additional experiments of Christopher Merrett (1614-95).

The engraved title depicts a glassworks.

Very good copy.

♣ Duveen, p. 427. Neville, II, p. 220.

Handsome Copy

78. **NICHOLSON, William.** *The First Principles of Chemistry.* One folding engraved plate. xxxi, 546, [4] pp. 8vo, cont. polished half-sheep & speckled boards, spine richly gilt, red morocco lettering piece on spine. London: G.G.J. & J. Robinson, 1792. \$1750.00

"Second edition, with Improvements" (1st ed.: 1790); this is a wonderfully fresh copy in fine contemporary condition. Nicholson (1753-1815), translator of Fourcroy and Chaptal, and editor of the first general scientific periodical in England published independently of the academics, was one of the important British figures in the new chemical movement.

"The author produced a text in which he 'attempted to keep clear of every system' with regard to nomenclature and theory. Since he believed the 'antiphlogistic hypothesis equally probable with the modified system of Stahl' he explains both... The text is divided into two Books, I. General Chemistry includes heat, construction of thermometers, combustion, methods of making experiments with gases, an account of balances and elective attractions; II. includes general principles of bodies, acids, metals, mineral combustibles, vegetable and animal products. The useful treatment in I. of thermometers and balances is not found in many texts."—Cole, p. 402—(describing the 1st ed.).

Very fine copy.

♣ Cole 977—"In the second edition the author has revised the work to some extent and inserted new discoveries." Neville, II, p. 228. Partington, IV, p. 19-20.

A Pioneer Work in Many Fields

79. **PALISSY, Bernard.** *Le Moyen de devenir Riche, et la Maniere Veritable, par laquelle tous les hommes de la France pourront apprendre à multiplier & augmenter leurs thresors & possessions.* 8 p.l., 255 pp.; 8 p.l., 526 pp. Thickish 8vo, 19th cent. calf-backed marbled boards. Paris: R. Fouet, 1636. \$6500.00

First collected edition of Palissy's two major books: the *La Recepte Véritable* (1st ed.: 1563) and *Discours Admirables* (1st ed.: 1580); the first editions are very rare and our 1636 edition is extremely uncommon.

This is a book full of interest. In *Recepte Véritable*, "Palissy discussed a wide variety of topics, including agriculture (for which he proposed better methods for farming and for the use of fertilizers), geology (in which he touched upon the origin of salts, springs, precious stones, and rock formations), mines, and forestry. He also suggested plans for an ideal garden, to be decorated with his earthenware and with biblical quotations...

"The second book, *Discours admirables*, probably incorporates Palissy's Paris lectures. It, like the earlier work, deals with an impressive array of subjects: agriculture, alchemy, botany, ceramics, embalming, engineering, geology,

hydrology, medicine, metallurgy, meteorology, mineralogy, paleontology, philosophy, physics, toxicology, and zoology. The book is divided into several chapters, the first and longest of which is concerned with water. The others take up metals and their nature and generation; drugs; ice; different types of salts and their nature, effects, and methods of generation; characteristics of common and precious stones; clay and marl; and the potter's art . . .

"Palissy's views on hydrology and paleontology, as expressed in the *Discours*, are of particular interest. He was one of the few men of his century to have a correct notion of the origins of rivers and streams, and he stated it forcefully, denying categorically that rivers can have any source other than rainfall . . .

"Palissy discussed fossils extensively . . . Palissy was probably one of the first men in France to teach natural sciences from facts, specimens and demonstrations rather than hypotheses."—*D.S.B.*, X, pp. 280-81.

Fine copy.

♣ Adams, *The Birth and Development of the Geological Sciences*, pp. 90, 261, & 446-48. Duveen, p. 446—"A book of great importance in the history of chemistry and science generally"—(referring to the 1st ed. of the *Discours*). Geikie, *The Founders of Geology*, pp. 104 & 118. Partington, II, pp. 69-77. Zittel, pp. 18 & 132.

American Chromolithography

80. PELOUZE, Théophile Jules & FREMY, Edmond. *General Notions of Chemistry*. . . Translated from the French. By Edmond C. Evans, M.D. Twelve finely chromolithographed plates (one serving as an added title). xx, [13]-439 pp. 8vo, orig. blindstamped cloth (upper joint with a short tear at head). Philadelphia: Lippincott, Grambo, 1854. \$350.00

First American edition, an abridgement of Pelouze and Fremy's *Cours de Chimie générale* (1848), the most comprehensive French treatise on chemistry and chemical technology of the mid-19th century. This American edition has been illustrated with twelve finely chromolithographed plates, each in brilliant color, depicting various chemical operations.

Very good copy. Old stamp of the Smithsonian Institution on title.

♣ Not in Bennett's *A Practical Guide to American Nineteenth Century Color Plate Books* (1949).

Neoclassical Designs

81. PERGOLESI, Michel Angelo. [*A Great Variety of Original Designs of Vases, Figures, Medallions, Friezes, Pilasters, Pannels and other Ornaments, in the Etruscan and Grottesque Style; Executed in the Most Finished Manner*]. 67 engraved plates numbered 1-66 with two different plates numbered 56 (final plate with small portion missing, just touching the image). 13

parts. Large folio (525 x 395 mm.), orig. pink wrappers stitched as issued (upper wrapper of first part & lower wrapper of final part absent for obvious reasons), uncut. [London: published by the Author, 1777-92].
\$14,500.00

First edition of this extremely rare collection of ornamental designs by Pergolesi (d. 1801); they document his great success in London after he left Rome to work for James Adams.

"The present work, his only publication, consists entirely of neoclassical designs for almost every type of ornament — ceilings, doors, wall panels, silverware, furniture, urns and vases, marquetry, etc. — interspersed with arabesques and grotesques. Because no title page or accompanying text was ever issued, the circumstances surrounding its appearance are obscure, although the imprint lines on the plates show that it was issued in parts, and that the first eleven suites of five plates each were published between May 1777 and March 1785 . . . Pergolesi's primary aim in publishing his designs was not to document his achievements, but rather to provide a pattern book for the fashionable Adam style of neo-classical ornament . . . Unlike Richardson, Pergolesi was unwilling to enter into partnerships with publishers, and the limited circulation of his suite seems confirmed by its comparative scarcity today."—*The Mark J. Millard Architectural Collection. Vol. II. British Books*, 55—(& see the rest of the essay for a detailed account of the off-and-on publication history of this book).

In excellent condition. Preserved in a morocco-backed box.

♣ Harris, *British Architectural Books and Writers 1556-1785*, 699.

Perronet's Masterwork

82. PERRONET, Jean Rodolphe. *Description des Projets et de la Construction des Ponts de Neuilly, de Mantes, d'Orléans et autres, du Projet du Canal de Bourgogne, Pour la Communication des deux Mers par Dijon, et de celui de la Conduite des Eaux de l'Yvette et de Bièvre à Paris.* Engraved frontis. port., engraved vignettes on titles & 67 magnificent engraved plates (many folding or double-page). Two vols. Large folios, cont. calf, spines gilt. Paris: de l'Imprimerie Royale, 1782-83.

[bound with]:

— *Supplément.* Eleven magnificent engraved plates (many folding). Large folio, orig. boards. Paris: Didot & Jombert, 1789. \$17,500.00

First edition and a very fine set of this splendid and handsomely illustrated book. "Jean Rodolphe Perronet is the father of modern bridge building and in his hands the masonry bridge reached technical and aesthetic perfection. He discarded the traditional rules of thumb, instead developing a fundamentally scientific approach to bridge design, and his precepts as laid down in this work

have been followed ever since . . .

“While working on Hupeau’s bridge at Mantes (begun 1757) Perronet, observing the movement of piers during construction, satisfied himself that in a completed multi-arch bridge adjacent arches thrust against each other and the piers only carry a vertical load. Traditionally, wide piers were needed only because each arch was built separately. Perronet realised that if he built all the arches at the same time and struck their centring simultaneously he could substantially reduce the size and cost of the piers and foundations. In his own bridge at Neuilly (begun 1768) he pioneered this revolutionary method of construction, the practical confirmation of theories advanced by earlier writers. Furthermore, he appreciated that arches could be very much shallower if the abutments were made capable of carrying the higher thrust. His next, and most radical, bridge at Pont-Sainte-Maxence (begun 1772) had a rise to span ratio of 1:11 as against the traditional 1:5, thus giving to the masonry bridge an entirely new architectural form. In this book all these bridges are described and very beautifully illustrated together with Perronet’s best-known structure, the Pont de la Concorde in Paris. The single-arch bridge at Nogent, where he observed, measured and recorded the deflection of the arch after decentring, is also included. There is a lengthy description of Hupeau’s earlier bridge at Orléans (begun 1751), partly because its foundations are similar to those of Mantes and Neuilly and partly to illustrate the machinery used in its construction, such as archimedean screws, chain pumps &c., which give a clear picture of contemporary building techniques. Perronet himself had developed a water-wheel at Neuilly, which, driven by the river current, powered the pumps, pile-drivers and installations. The volumes also contain the series of ‘Mémoires’ on pile foundations, centring, thickness of piers and so on, in which his basic design philosophy is demonstrated, together with some reports on the surveying of the Canal de Bourgogne and on Paris water supply schemes.”—Elton, *Cat. 15*, 75.

A fine and handsome set. Ex Bibliotheca Mechanica.

✦ Roberts & Trent, *Bibliotheca Mechanica*, p. 249. Timoshenko, *History of Strength of Materials*, p. 42—“His memoirs were widely read by structural engineers.”

83. PLAT, Hugh. *The Jewel House of Art and Nature: containing Divers Rare and Profitable Inventions, together with sundry new Experiments in in [sic] the Art of Husbandry. With Divers Chymical Conclusions concerning the Art of Distillation, and the rare practises and uses thereof. . . Whereunto is added, A rare and excellent Discourse of Minerals, Stones, Gums, and Rosins; with the vertues and use therof, by D.B. Gent.* Title within typographical border & woodcut diagrams in the text. 4 p.l., 232 pp. Small 4to, cont. sheep (quite decently rebacked), sides ruled in blind. London: Elizabeth

Alsop, 1653. \$2500.00

Third edition. "The final and best edition of this fascinating compendium of 150 recipes, inventions, and experiments (first, 1594), containing the valuable addition on minerals (including the lodestone, p. 218) by the editor, Arnold de Boate (1606-1650). The book contains much of purely chemical interest. The second edition, also of 1653, bears the imprint of Bernard Alsop. For the differences between the 'Bernard' and 'Elizabeth' editions, see Bent Juel-Jensen (*The Book Collector*, 1966, pp. 212-213)."–Neville, II, p. 310.

Sir Hugh Plat (or Platt) (1552-1608 or 1611?), agriculturalist and inventor, took his degree at Cambridge. "The first part lists 103 experiments, ranging from the practical to the fantastic. These include recipes for preserving fruit, flowers, meat, and water, and for a tooth-cleaner; a cheap way to erect a small bridge without the need to place supports in the water; a chafing dish to keep food warm without coals; how to keep garments free from moths; how to dispose of wasps and rats; a cement for mending glasses; and how to know what cards your opponent is holding. The second part deals with soils and manures, the third with distillations, the fourth with moulding and casting metals, and the fifth, entitled 'An offer of certain new inventions which the author proposes to disclose upon reasonable considerations', covers a diversity of topics such as the brewing of beer without hops, the preservation of food in hot weather and at sea, mnemonics, and fishing."–*ODNB*–(referring to the first edition of 1594).

In the present third edition, Arnold de Boate's *Discourse of Minerals* . . . appears for the first time.

Very good and fresh copy. From the Hammer library at Stockholm with bookplate.

• Hoover 644. Schuh, *Mineralogy & Crystallography: A Bibliography, 1469 to 1920*, 3735–"Scarce."

"One of Poisson's Chief Treatises"

84. POISSON, Siméon Denis. *Théorie Mathématique de la Chaleur*. One folding engraved plate (a little foxed). 2 p.l., 532, [2] pp. Large 4to, cont. purple boards (corners a bit worn, a little foxed as usual), flat spine gilt, green morocco lettering piece on spine, uncut. Paris: Bachelier, 1835.

\$3250.00

First edition of Poisson's important formulation of equations describing the distribution of heat within bodies. "Poisson scored a point in this work by demonstrating how the conductivity of heat in the interior of bodies, far from being contained in the notion of flux as Fourier had held, must be derived from an absorption coefficient that restores a neglected functional dimension."–*D.S.B.*,

XV, p. 488.

A very fine copy in original state.

♣ Roberts & Trent, *Bibliotheca Mechanica*, pp. 260-61—"This is the first edition of an important work in which Poisson formulated equations for the distribution of heat in bodies. As opposed to Fourier, who maintained in his *Mémoire analytique de la chaleur* that the conductivity of heat was contained in the motion of flux, Poisson showed that it must be derived from an absorptive coefficient restoring the neglected functional dimension . . . One of Poisson's chief treatises."

85. [RAPPOLT, Thomas von]. *Honori Philaretis Hermopolitani. Jäger-Lust oder Philosophischer-Nymphenfang Das ist: Gründliche und auszfürliche Beschreibung des uhralten Steines der Weisen, In welcher Nicht allein desselben Art, Natur, und Eygenschaft, sondern gäntzliche Praeparation . . . Würde, Hoheit, endliche Würckung unnd Tugend . . .* Title within woodcut border. 8 p.l., 88 pp. Small 4to, attractive antique calf, spine gilt. Hamburg: in verlegung des Authoris, Gedruckt bey Heinrich Werner, 1635.

\$4750.00

First edition of this extremely rare alchemical poem by the Silesian nobleman Rappolt, who was a physician and member of the Council of Mines of the Electorate of Brandenburg. It is his only printed work.

"This curious treatise in German verse, accompanied by a commentary in Latin, treats of alchemical operations symbolized by a nymph hunt."—Duveen, p. 496—(describing, in error, his 1679 line-for-line reprint as the first edition). The work is prefaced by a vigorous attack on idolaters, gold-makers, and false philosophers who promised an always imminent discovery of a prosperity-ensuring "philosopher's stone," and on other "philosophers" and Aristotelians, who have neither profoundly studied nor understood the subject. At the end of the introduction Rappolt explains that those who patiently seek the "light" of this poem shall be rewarded, as he has hidden it to confuse "blockheads" and "hair-splitters."

Fine copy. The OCLC description is incorrect; see the Harvard copy for a correct collation.

♣ Ferguson, II, p. 198—(2nd ed. of 1679 only).

86. REULEAUX, Franz. *The Constructor. A Hand-Book of Machine Design . . .* Authorized translation, complete and unabridged from the Fourth enlarged German edition by Henry Harrison Suplee. Frontis. port. & over 1200 illus. in the text. xviii, 312 pp. Large 4to, orig. cloth (hinges a little cracked but strong, foot of spine with short tear).

Philadelphia: H.H. Suplee, 1893. \$250.00

First edition in English of this classic work, first published in 1861 as *Der Constructeur*. Reuleaux (1829-1905), professor of engineering at the Swiss Federal Institute in Zurich and, in 1879, elected Rector at the Königs Technischen Hochschule in Berlin, was one of the leading mechanical engineers of the period.

Reuleaux believed that machines could be abstracted into chains of elements constrained in their motions by adjacent parts in the kinematic chain. He developed a compact symbolic notation to describe the topology of a very wide variety of mechanisms, and showed how it could be used to classify them and even lead to the invention of new useful mechanisms. At the expense of the German government, he directed the design and manufacture of over 300 beautiful models of simple mechanisms, such as the four bar linkage and the crank. These were sold to universities for pedagogical purposes. Today, the most complete set is at Cornell University College of Engineering.

Very good copy. Corners a little worn. Ex Bibliotheca Mechanica.

One of the Greatest of All American Bridge Books

87. ROEBLING, John Augustus. *Long and Short Span Railway Bridges*. Frontis. port. of Roebling & 13 plates (11 are double-page & two are very large & folding). 2 p.l., 50 pp., [10] leaves of tables. Large folio, orig. cloth (lower outer corners a little jammed, rebacked), upper cover lettered in gilt. New York: D. van Nostrand, 1869. \$12,500.00

First edition of a rare book. "John Roebling's only published work (apart from job reports), this splendid book is concerned to show the suitability of the suspension bridge for railway use, in particular a combined arch and suspension bridge system, which he calls a 'parabolic truss', demonstrating its superiority and economic advantages over lattice and tubular girders. I. K. Brunel in his Saltash bridge had successfully made use of such a combination, building parabolic arches with their ends tied together by suspension chains. Roebling cites this bridge but his own system is somewhat different in that the springing of the arched truss is well below the level of the saddles and is intended to provide the necessary stiffness to distribute the point load of a moving locomotive and train, the major problem to be overcome in designing railway suspension bridges . . .

"The present work details his optimum design for a bridge with a central span of 500ft and two side spans each of 300ft, describing its component parts and method of construction and proving it theoretically. The other central feature are his designs of 1855 and later for a 'parabolic truss' bridge to carry both road and rail over the Mississippi at St. Louis, a project eventually carried out by Eads. Roebling's designs have spans of up to 800ft, which he considers to be the practical and economic limit of his bridge system. In view of his experience with

the Niagara Falls bridge (completed 1855, span of 821ft), the deep deck beam of which acted as a stiffening truss, he maintains that for longer spans the pure suspension type is the most appropriate form . . .

“Although the title refers to short-span bridges, only a small portion of the work is devoted to them. Roebling had intended the book to be the first of several volumes, but died before these could be achieved. As it was, this book was itself published posthumously, though he had completed the manuscript and revised most of the proofs and plates before his death. Aimed at the practising engineer and straightforwardly written, using the simplest of calculations, it clearly demonstrates Roebling’s design philosophy and his pre-occupation with stiffness and with economy of construction. With its series of superb plates it is one of the handsomest (and rarest) books in American civil engineering literature.”—Elton, *Cat. 4*, 40.

A fine copy.

Very Rare

88. ROVENZON, John. *A Treatise of Metallica. But not that which was published by Mr. Simon Sturtevant vpon his Patent, which is now by order cancelled and made voyd, by reason of his standing out-lawed at the time of the grant, and so still continuing, and his neglect, and not performance of the workes. Whereupon Priviledge, by Patent, is granted by the Kings most excellent Maiesty, to Iohn Rovenzon, Esquire, for the making of Iron, and other Mettals and Materials with Sea-cole, Pit-cole, &c. for one and thirty yeares. According to which Patent and direction therein, this Treatise, composed by the same Iohn Rovenzon, is published in Print before the end of Easter Tearme, viz. the 15 of May. 1613. And containeth a briefe Explanation, Demonstration, or Discouery of the Inventiones priviledged, and the meanes, Instruments, Engins, Furnaces, &c. with the materials, things, and workes to be made by the said Fewels. The charge of an Iron-worke to worke with Sea-cole, is set downe in the latter end of this Booke.* [14] leaves (lacking the first & final leaves, both of which are blank). Small 4to, fine modern green morocco (a few leaves shaved, a light stain on title) by Laurenchet, dentelles gilt. London : Printed [by N. Okes] for Thomas Thorp, 1613. \$17,500.00

First edition and an extremely rare book of which, according to the *NESTC*, there are only five known copies (not including of this copy). This text was reprinted along with Simon Sturtevant’s *Metallica* (1612) and Dud Dudley’s *Metallum Martis* (1665) in 1854.

“The problem of expanding the manufacture of iron in the British Isles after about 1600 came to be bound up with the replacement of wood by coal in the furnaces and the forges at which pig iron was converted into bar iron . . . How, then, did the conquest by coal of the smelting-processes in Great Britain come

about? Two men claimed to have solved the problem of substituting coals for charcoal as fuel in the blast-furnaces at which iron ore was smelted and run into moulds, at the very beginning of the seventeenth century. Simon Sturtevant, who was apparently of Dutch origin, and John Rovenzon published treatises on metallurgy in 1612 and 1613 advocating the adoption of coal-burning blast furnaces, which they suggest are feasible though they fail to describe the processes that they profess to have invented to bring it about."—Singer et al., eds., *A History of Technology*, Vol. III, pp. 78-79.

Sturtevant was issued a patent in 1611 for his proposal to use coal instead of wood or charcoals in smelting iron and other metals. But in a few months, the grant was withdrawn and another issued in its place to John Rovenzon, an assistant to Sturtevant. Rovenzon's *A Treatise of Metallica* "shows that he had a true conception of the method of manufacture."—Samuel Smiles, *Industrial Biography*, Chapter 3.

A fine copy.

♣ Duveen, p. 183—(1854 reprint only). *NESTC*21355. Hoover 697—(1854 reprint only). Partington, II, p. 61. Sotheran, *First Supplement*, 6420—(describing the original edition as "excessively rare").

Rough Seas

89. SAINT-VENANT, Adhémar Jean Claude Barré de. *Du Roulis sur Mer houleuse. Calculé en ayant Égard à l'Effet retardateur produit par la Résistance de l'Eau.* 66, [1] pp. 8vo, orig. blue printed wrappers (frayed, punched for a 3-hole binder, each leaf loose). Paris: Dunod & Gauthier-Villars, 1871. \$250.00

First separate edition, a separately paginated "Extrait des Memoires de la Société des Sciences naturelles de Cherbourg, T. XVI."

"In this paper, St. Venant discusses waves on rough seas, calculating them with regard to the retarding effect produced by the resistance of the water . . .

"St. Venant's purpose in these researches is to show whatever the known form on the surface of the wave might be, that the integration of the wave in a non-resistant water can be integrated. From this form, to take the integral, relative to the troichoidal form, even in taking, as proposed by Bertin in a suite to his work of 1869, for the variable direction of the resulting fluid pressure, not precisely the normal at the surface of the wave in the environment of the part occupied by the vessel, but an average between the directions of the normals at the curve of level, also troichoidal, traversing the vessel at a certain depth, for example, that at the center of the keel . . .

"Finally, to take account analytically of the effect of resistances opposed by the water, and up to a certain point by the air, to the movement of waves on vessels; an effect which is easily calculated for the case of a calm sea, in simply adapting to the question the solution that Poisson gave of the movement of a pendulum

in an environment which resisted it proportionally either to its speed or to the square of that speed relative to the water. The evaluation of the same effect for the case of a rolling sea is found comprised in the integral of the equation of the movement, which one can again obtain in completed form when one supposes the resistance proportional to the simple speed, a supposition which, after a great number of hydraulic facts, appeared realized in the low movements, as those that the builders of vessels look for, above all today, to obtain for their waves."—Roberts & Trent, *Bibliotheca Mechanica*, pp. 288-89.

Not at all a good copy, but really rare. Preserved in a black morocco-backed box. Ex Bibliotheca Mechanica.

90. SEVRIN, L.J. *Dictionnaire des Nomenclatures chimique et minéralogique anciennes, comparées aux Nomenclatures chimique et minéralogique modernes, d'après les Ouvrages des Chimistes et le Traité de Minéralogie de Mr. Hauy; auquel on a joint Trois Tableaux synoptiques destinés à offrir les principaux caractères des Corps simples, et un quatrième Tableau qui présente les Caractères des Acides...* Five folding printed tables (some foxing) & three folding engraved plates (the largest with several repairs on verso). 2 p.l., xxx, [31]-232 pp. 8vo, antique calf-backed marbled boards (minor foxing), spine gilt. Paris: Samson, 1807. \$1650.00

First edition. "An important early dictionary of the new chemical and mineralogical nomenclatures. The chemical section occupies pages 31-144 and is divided into two parts: 'Nomenclature ancienne et moderne' and 'Nomenclature française et latine,' preceded by a long and interesting introduction on the new discoveries in chemistry. The mineralogical section occupies pages 145-232, comprising two parts: 'Nomenclature ancienne et moderne' and 'Nomenclature moderne et ancienne.' The plates showing symbols of chemical substances are an extension of those of Hassenfratz and Adet. The author, Sevrin, was a 'master of pharmacy'."—Neville, II, p. 462.

Very good copy.

• Cole 1204—"Sevrin has brought the new nomenclature up to date and has applied the principles to mineralogy." Schuh, *Mineralogy & Crystallography: A Bibliography, 1469 to 1920*, 4419—"Very scarce. Although largely unknown, this is a valuable dictionary of chemical and mineralogical nomenclature. It was written at a time when vast changes were being proposed in mineralogical and chemical naming conventions."

"An Important Work"

91. **STAHL, Georg Ernst.** *Experimenta, Observationes, Animadversiones, CCC Numero, Chymicae et Physicae* . . . 14, [14], 420, [16] pp. 8vo, cont. half-sheep & speckled boards (some occasional light browning due to the quality of the paper), spine gilt, contrasting leather lettering piece on spine. Berlin: A. Haude, 1731. \$1250.00

First edition of this scarce collection of chemical and physical experiments and observations by Stahl (1660-1734), the founder of the phlogiston theory. The wide range of topics reveals Stahl's enormous activity as a chemist and professor. There are many references to phlogiston.

"An important work in 301 sections in which Stahl comments critically on a wide variety of chemical and physical phenomena and experiments. There is a long discussion on phlogiston and its supposed properties . . . This work, published just three years before he died, is interesting because it summarizes Stahl's theories towards the end of his life."—Neville, II, p. 509.

Fine copy.

♣ Duveen, p. 561. Partington, II, p. 662.

92. **TIRAN, Benoit.** *Essai sur la Soude, considérée sous le rapport de son extraction et de ses combinaisons sur différens corps; présenté et soutenu à l'École de Pharmacie de Montpellier, le 4 Septembre 1810.* 36 pp. 4to, modern wrappers (some foxing). Montpellier: A. Ricard, [1810]. \$750.00

First edition of this very rare dissertation — no copy in OCLC — on saltwort (*Salsola Kali*) and glasswort (*Salicornia herbacea*), salt-marsh herbs, widely distributed in the northern hemisphere, with succulent, jointed, leafless stems, in reference to its former use in glass-making. Its ashes could be used for making soda-based (as opposed to potash-based) glass.

The ashes of glasswort plants, and also of their Mediterranean counterpart saltwort plants, yield soda ash, which is an important ingredient for soapmaking as well as glassmaking. By the 18th century, Spain had an enormous industry producing soda ash from saltworts; the soda ash from this source was known as *barilla*. In the same period, soda ash (*la soude de Narbonne*) was produced in quantity from glasswort proper around Narbonne, France.

Tiran describes the plant's anatomy, contemporary chemical experiments using the ashes, and its uses in industry.

Very good copy of an interesting and rare book.

*The First Work on Cotton Spinning Published in France;
The Dedication Copy, printed on Papier Vélín*

93. VAUTIER, F. *L'Art du Filateur de Coton. Ouvrage dans lequel on expose tout ce qui est relatif à cet Art.* Ten fine folding engraved plates. xv, 328 pp., one leaf of errata. 8vo, cont. blond calf, initials "L.R." in center of upper cover, gilt decorations round edges of each cover, spine gilt (spine a little dull), red morocco lettering piece on spine, a.e.g. Paris: Audin, 1821.

\$5000.00

First edition of a very rare book; this is the dedication copy in a fine contemporary binding with the initials "L.R." stamped in gilt on the upper cover. This copy belonged to the dedicatee, François Alexandre Frédéric, le Duc de La Rochefoucauld Liancourt (1747-1827), French philanthropist and social reformer. He established a model farm at Liancourt, a school of arts and crafts for the sons of soldiers, and was active politically for nearly thirty years.

This is the first work published in France on the spinning and manufacture of cotton. Vautier provides a detailed history of the introduction of cotton into England and France from various colonies in warmer climates. He gives an extended discussion of the botany and cultivation of the cotton plant and the different species. He also describes the qualities of cotton from each colony including Georgia, Santo Domingo, Guadeloupe, Louisiana, and Venezuela.

Most of the book is devoted to contemporary and early methods of cotton spinning and manufacture. Of course, this section is dominated by the developments which took place in England, ranging from Kay's "Fly" shuttle to the spinning jenny, Arkwright's invention, Crompton's "Mule," the power loom employing steam power, etc.

Pages 281-89 contains a fascinating list of cotton weavers and manufacturers of weaving machines throughout France.

Fine and handsome copy. Bookplate of "Le Comte Henry Chandon de Briailles, 1898-1937."

The Venturi Principle — A Famous Rarity

94. VENTURI, Giovanni Battista. *Recherches Expérimentales sur le Principe de la Communication Latérale du Mouvement dans les Fluides, Appliqué à l'explication de différens Phénomènes hydrauliques.* Two folding engraved plates. 88 pp. 8vo, attractive antique half-calf & marbled boards (some foxing & light browning), spine gilt, red morocco lettering piece on spine. Paris: Houel & Ducros, 1797.

\$8500.00

First edition of this classic and extremely rare work in the history of hydraulics. In this book, Venturi (1746-1822), postulated what is now termed the "Venturi Principle," namely that in passing through converging pipes fluids under

pressure gain speed and lose head, and vice versa for diverging pipes. The Venturi principle is now very widely adopted for metering flows in pipes, tunnels, and channels.

Very good copy.

• Kent, W.G., *An Appreciation of Two Great Workers in Hydraulics* (London: 1912), stated that only two or three copies of this "most interesting volume" still exist. Roberts & Trent, *Bibliotheca Mechanica*, pp. 339-40—"Venturi's classic and surprisingly rare work in experimental hydrodynamics, describing a series of experiments which he undertook in Italy, using Poleni's efflux apparatus. Rouse & Ince, *History of Hydraulics*, pp. 136-37.

95. VERGNIES, François Alexis. *Considérations sur l'Anthrax non contagieux*. vi, 22 pp. Large 4to, modern marbled wrappers. Paris: Didot jeune, 1815. \$375.00

First edition of this very rare thesis on non-contagious anthrax. Anthrax can enter the human body through the intestines, lungs (inhalation), or skin (cutaneous). Vergnies describes the symptoms and treatments and provides four fascinating case histories.

Fine copy.

96. VICAT, Louis Joseph. *Résumé des Connaissances positives actuelles sur les Qualités, le Choix et la Convenance réciproque des Matériaux propres a la Fabrication des Mortiers et Ciments calcaires; suivi de Notes et Tableaux d'Expériences justificatives*. Four folding lithographed plates & 17 printed tables (1-16 & 3bis). xii, 149 pp. Large 4to, orig. blue wrappers (upper wrapper detached), uncut. Paris: Firmin Didot, 1828. \$1350.00

First edition and rather scarce. "Although Vicat's 1818 publication [the *Recherches Expérimentales sur les Chaux de Construction, les Bétons et les Mortiers Ordinaires*] is of great significance as the first of its kind, his second [the present book] is, in some ways, of greater interest. In the intervening years between the two, he had continued and extended his researches, both confirming his original findings and sometimes revising or modifying his opinions as well as discovering new truths. In addition, his artificial limes had already been widely applied, in particular to the Saint Martin (Paris) and Saint Maur canals and to Toulon harbour where Raucourt de Charleville had used nearly a thousand cubic metres in its construction and so he had practical experience of their properties under working conditions and over a period of time . . .

"Vicat's 'Résumé' contains all this new information, including the method of

manufacturing hydraulic lime carried out under his direction at a factory in Meudon, near Paris together with an illustration and explanation of the 'Vicat Needle', for measuring the hardness of cement, still in use today. He also comments in detail on the work carried out by other French engineers whose attention had been drawn to the subject as a result of his initial work. It is therefore a valuable source book for historians."—Elton, *Cat. 10*, 156.

"The artificial cements were made by mixing together chalk or limestone and clay or mud in proportions that had to be empirically determined, because the chemical reactions involved in the setting and hardening of cement were then unknown; they are in fact highly complicated. Important pioneer work on this subject was done in France by L.J. Vicat."—Singer et al., *A History of Technology*, p. 448.

Very good copy, preserved in a cloth-covered box. Contemporary ownership inscription on half-title of John Wilson, stonemason and contractor for many of Telford's works. Bookplate of the Institution of Structural Engineers. Ex Bibliotheca Mechanica.

The Preparation of Crystalline Benzoic Acid

97. VIGENÈRE, Blaise de. *A Discourse of Fire and Salt, discovering Many secret Mysteries, as well Philosophicall, as Theologicall.* Title within ruled & typographical border (title rather stained & with several repairs towards gutter). 2 p.l., 162 pp. Small 4to, cont. sheep (rebacked, some dampstaining to first 20 leaves). London: R. Cotes, 1649. \$1500.00

First edition in English. "The English translation, by Edward Stephens, of the posthumously published *Traicté du feu et du sel* (Paris, 1618 and 1622), the only alchemical work of the author. The book is important as it first describes the preparation of crystalline benzoic acid. Also described are the preparation of sulphuric acid and other inorganic chemicals, with references to the works of Geber, Lull, et al. Vigenère believed that there is spagyric 'salt' in everything and that metals are nothing but 'congealed and baked salts' formed by repeated decoctions deep in the earth."—Neville, II, p. 590.

Vigenère (1523-96), studied classics and Hebrew in Paris and served as secretary to the Duke of Nevers and Henry III.

Good copy of an uncommon book. Bookplate of Norman Travis. The somewhat defective Honeyman copy, lacking a leaf and very small with cropping, sold in 1978, making 750 pounds.

♣ Cole 1318. Duveen, p. 604. Ferguson, II, p. 510. Partington, III, pp. 15-16.

A Beautifully Illustrated Natural History Cabinet

98. **VINCENT, Levinus.** *Wondertooneel der Nature, Geopent in eene korte Beschryvinge der Hoofddeelen van de Byzondere Zeldsaamheden daar in Begrepen; in Orde gebragt en bewaart.* Finely engraved frontis., engraved vignette on title, a double-page engraved plate depicting the natural history gallery, & seven folding engraved plates. 30 pp. (incl. the frontis.); [22], [9]-278 pp. Two parts in one vol. 4to, cont. vellum over boards (a little warped). Amsterdam: F. Halma [Vol. I]; For the Author [Vol. II], 1706-15. \$13,500.00

First edition and a fine fresh copy of this finely illustrated catalogue of the natural history collection of the Dutch merchant and manufacturer Levinus Vincent (1658-1727); this is one of the most beautifully illustrated of all catalogues of cabinets. The fine frontispiece is by Romeyn de Hooghe.

Vincent formed one of the greatest *Wunderkammern* in Holland containing animals, shells, coral and marine plants, minerals, insects, ethnographical objects, and a supporting library. Gersaint, in his 1736 catalogue of his own collection of shells, wrote that he had visited Vincent's collection after his death and had been very pleasantly surprised by the range, quality, and perfection of the collection. The cabinet was later sold, after some difficult negotiations, to M.P. Bout, deputy of the province of Holland. In 1779 the collection was dispersed at auction in The Hague and many of the items provided material for the works of Valentijn, Cramer, d'Argenville, Petiver, and Knorr.

The collection is depicted in two spectacular plates. The frontispiece by de Hooghe depicts the collection in Amsterdam. In 1705, Vincent moved to Haarlem and the double-page plate shows the magnificent large and long hall with the specimens displayed along the walls and on tables, being examined by a large party of interested visitors.

The remaining plates show individual cabinets and the contents of certain drawers. The text describes in detail the contents of the cabinets, number of specimens per drawer, etc. All the plates are beautifully executed and almost give the feeling of being in this attractive room.

A fine copy.

☛ Landwehr, *Romeyn de Hooghe*, 105.

Wallis Posthumously Settles a Squabble

99. **WALLIS, John.** *A Treatise concerning St. Matthias Day, Misplaced in the Oxford Almanack for the Year 1684 (being Leap-Year) at Feb. 24. In a Letter from Dr. Wallis to Dr. John Fell late Lord Bishop of Oxford. Published from the Original Manuscript in the Savilian Study.* 3 p.l., 28 pp. 8vo, cont. calf (well-

rebacked), spine gilt, red morocco lettering piece on spine. Oxford: 1719.
\$2950.00

First edition of this very scarce posthumously published work. We learn from the Preface that there was considerable debate within the Oxford community regarding keeping St. Matthias's Day on the 24th or 25th of February in leap years. Wallis's text, from a manuscript written in 1684, was published to add support for the 24th as the preferable day.

Fine copy.

With the Rare Supplement

100. [WORCESTER, Edward Somerset, Second Marquis of]. *A Century of the Names and Scantlings of such Inventions, As at Present I can call to mind to have tried and perfected, which (my former Notes being lost) I have, at the instance of a powerful Friend, endeavoured now in the year 1655. to set these down in such a way as may sufficiently instruct me to put any of them in practice.* Woodcut royal arms on verso of first leaf of supplement. 10 p.l., 72 pp., [7] leaves (first & last blank); 1 leaf, 34 pp. 12mo, early 19th cent. russia (rebacked & with some wear). London: J. Grismond, 1663.

\$6500.00

First edition and rare, especially with the supplement which is not present in almost all copies. Among the remarkable projects in this repository of contemporary inventions are a calculating machine, a universal language, repeating firearms, time bombs for use against enemy ships, a mechanical flying bird, a device for enabling a man to fly, burglar-proof locks, and eight different mechanical alphabets. The book is most famous for Worcester's description of his famous "water-commanding engine," an apparatus for raising water by means of steam which, it has been claimed, gives him the right to be credited with the invention of the steam engine.

Very good copy, lacking the first blank. The Norman copy lacked the supplement. Ex Bibliotheca Mechanica.

• Roberts & Trent, *Bibliotheca Mechanica*, pp. 360-61—"Rare original edition . . . a fascinating and uncommon work . . . The text consisting of short accounts or outlines of ideas of one hundred inventions claimed by the author . . . The present copy is complete with the thirty-four page section in which he gives a [further] description of his water-commanding engine." Wing W-3532.