

Science & Technology

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ASHER Rare Books

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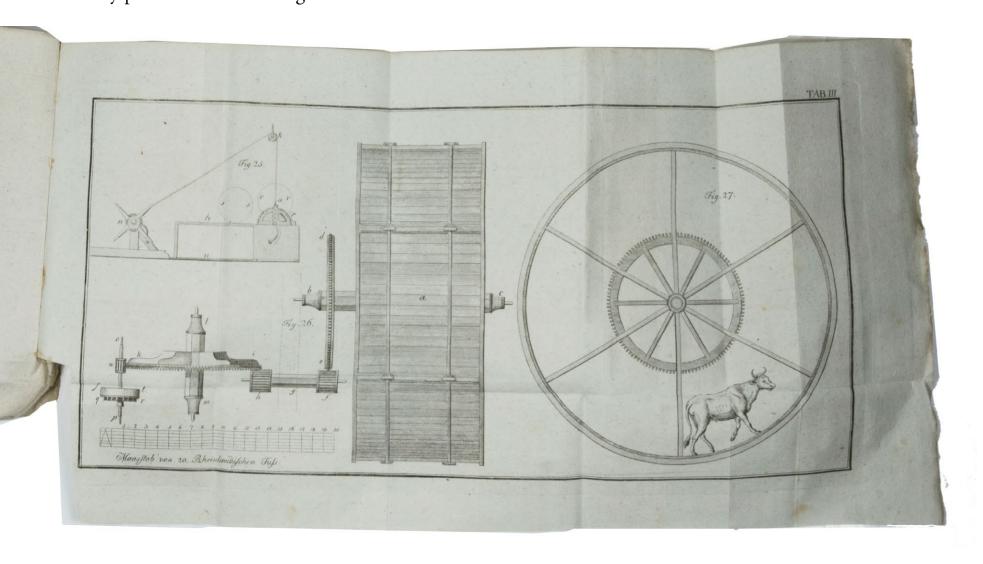
Phone: +31 (0)30 6011955 Fax: +31 (0)30 6011813 E-mail: info@asherbooks.com Web: www.asherbooks.com

Invention of beet sugar manufacturing

1. ACHARD, Franz Carl. Die Europäische Zuckerfabrikation aus Runkelrüben, in verbindung mit der bereitung des Branntweins, des Rums, des Essigs und eines Caffee-Surrogats aus ihren abfällen, beschrieben und mit Kupfern erläutert durch ihren Urheber ... Drey Theile ... Neue verbesserte wohlfeilere Auflage.

Leipzig, J.C. Hinrichs, 1812. 3 parts in 1 volume. 8°. With 10 folding engraved plates depicting the production of sugar from sugar beets. Contemporary marbled paper wrappers. € 875

Second enlarged edition of the first complete technical description of the process of production of sugar from sugar beets, including the production of brandy, rum, vinegar and a coffee substitute from the waste materials, written by the German chemist Franz Carl Achard (1753–1821), himself the inventor of the factory production of beet sugar.



The present work, his most important publication, minutely described the process of production and all apparatus of the sugar factory, illustrated in detail in the large engraved plates. Achard's first sugar factory became a training school, and sugar factories were built all over Germany, France, the Netherlands and beyond.

On large paper with broad margins, wholly untrimmed. Corners bumped, edges slightly frayed. Otherwise in good condition.



FOLIVM POPVLI.

I NSTRVMENTVM HOC A PETRO APIANO IAM RECENS INVENTVM, ET IN FIGURAM FOLII POPVLI RE-

dactum per radios Solis toto orbe horas comunes oftendit, ex quibus horæ ab ortu & occasu Solis, deinde etiam horæ ludeorum, quæ in sacrarum literarum lectione per virum & Testamentum cognitu admodum sunt necessariæ, deprehendi sacilime possunt.

In disem newen Instrument das die som onnd aestalt

hat eines blats/werden durch den Sonnen sehenn/in der ganken welt gefunden die gemaisne stunden des Zages/vnd auß der selbigen/vermittels dises blats magst du die Stunden vom Auff vnd Nidergang der Sonnen/des geleichen die Judenstund (welhe durch die ganke Bioel im Alten vnnd Newen Zestament gebraucht werden) leichtlich erfhennen.



Famous sundial in the form of a poplar leaf, with beautiful woodcuts

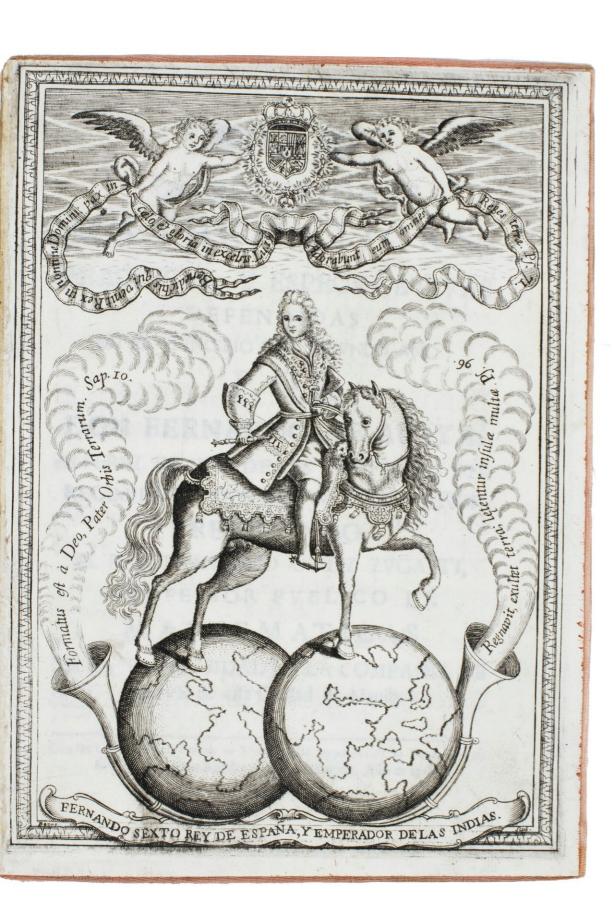
2. APIANUS, Petrus. Folium populi.

(Colophon:) Ingolstadt, [Petrus Apianus], 22 October 1533. Folio (30 × 20.5 cm). With the text in Latin and German, title-page in red and black with a large woodcut by Hans Brosamer; a nearly full-page woodcut of the coat of arms of the dedicatee, J.G. of Loubenberg; a large woodcut diagram printed twice (in the Latin and in the German text); and 7 decorative initial letters. Without the folding plate included in a very small number of copies. Modern boards with the original fly-leaves preserved. € 2250

First edition, in Latin and German, of Apianus's description of his newly invented sundial in the form of a poplar leaf. This instrument can be used to tell the hours of the day, the times of sunrise and sunset, and the so-called "Jewish" hours dividing the time between sunrise and sunset into 12 parts. The stunning woodcuts were executed by Hans Brosamer (ca. 1500–1554), with his monogram on the title woodcut next to the image of a woodblock cutter's knife. The title in the present copy is in an uncorrected state, with "RFCENS" and "RFDACTUM" for "RECENS" and "REDACTUM."

Apianus (1495–1552), cartographer and professor of mathematics at the University of Ingolstadt, was a pioneer in the design of astronomical and geographical instruments. He set up a printing office in his own home in order to oversee his scientific publications. With wormholes slightly affecting the text and illustrations, but otherwise a very good copy and with generous margins. Lacking the final blank leaf, but with a contemporary fly-leaf at the front and another at the back. A pioneering horological work, beautifully illustrated.

[22] pp. Adams A-1289; DSB I, pp. 178–179; Van Ortroy, Apian 106; Zinner, Astron. Instrumente, pp. 233–234; cf. WorldCat (microfilm only). > More on our website



A dissertation from Manilla's Jesuit University on practical mathematics for the military

3. ARAYA, Fernando de. Conclusiones mathematicas, practicas, y especulativas defendidas en el principio del segundo año ...

Manila, Nicolas de la Cruz Bagay, 1758. 4°. With engraved frontispiece equestrian portrait of Ferdinand VI, King of Spain and Emperor of the Indies. Contemporary salmon-coloured silk over flexible boards, preserved in modern portfolio. € 8750

First and only edition of a brief dissertation on the practical use of mathematics in the military by the Spanish soldier Fernando de Araya, "alferez de una de las compañias del regimiento del rey nuestro señor", who studied at Manilla's Jesuit University. With the Jesuit mathematician Francisco Ortiz Zugasti (1727–1772) as praeses. Although the letterpress presswork leaves much to be desired, the frontispiece is nicely executed and well printed, and the Italian laid paper is excellent and very white.

In very good condition. Silk covering torn at the spine (front board nearly detached) and with faded patches along the edge of the front board. A rare Manilla imprint, bound in silk.

[4], 4 ll. De Backer & Sommervogel VIII, col. 1534; Medina, La imprenta en Manila 260; WorldCat (7 copies). More on our website

First printed edition of a famous work on optics

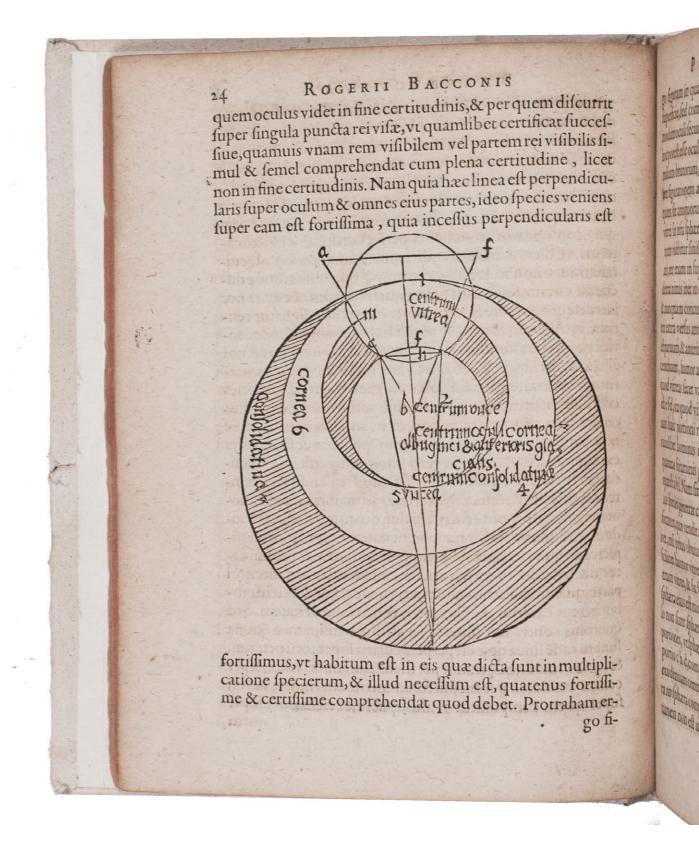
4. BACON, Roger. Perspectiva. In qua, quae ab aliis fuse traduntur, succincte, nervose & ita pertractantur, ut omnium intellectui facile pateant. Nunc primum in lucem edita. Opera & studio Joannis Combachii.

Frankfurt, Wolffgang Richter for Antonius Hummius, 1614. 4°. With 8 full-page woodcuts printed on both sides of four leaves inserted as plates, and numerous woodcut figures and illustrations in text, several full-page. Modern plain paper boards. € 9500

First edition of a famous work on optics by the English natural philosopher and mathematician Roger Bacon (ca. 1220–ca. 1292). Bacon was well read in Arabic and ancient Greek sources on optics and perspective, a subject hardly studied in Europe during the earlier Middle Ages. The main sources for his theories were the writings of Euclid, Ptolemy and Alhazen (Ibn al-Haytham), and he followed Robert Grosseteste concerning the importance of light and in his emphasis on the use of lenses, not only for burning, but also for magnification to aid natural vision. Bacon advised magnifying glasses for old people as well as for people with weak eyes. The *Perspectiva* belonged to Bacon's *Opus maius*, compiled in manuscript in 1266–1267. The present edition was based on a medieval manuscript and was edited by Johann Combach (1585–1651), professor of philosophy at Marburg in Germany

With a stain on the title-page and two on the last blank, probably from removing old stamps, browned throughout with a few small spots, but overall in good condition. Binding with some water stains, but otherwise good.

[8], 189[=205], [1 blank] pp. DSB I, pp. 377–384; VD17 23:236968W; cf. Kemp, The science of art, pp. 26, 211, and 269; Vagnetti DB5. > More on our website





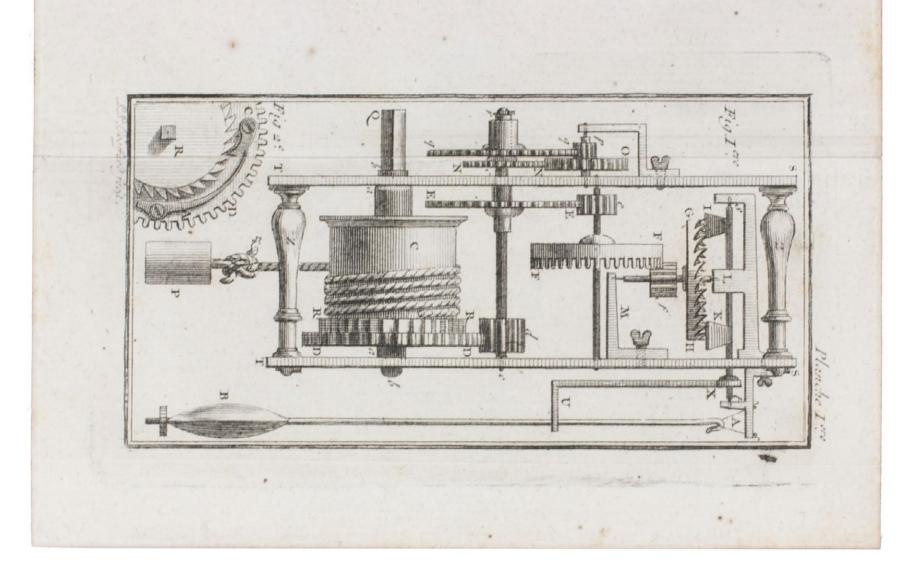
Expanded Dutch edition of Baker's classic on the microscope

5. BAKER, Henry. Het mikroskoop gemakkelyk gemaakt, of gemeenzaame beschryving, van allerley werktuigen, die men gebruikt om zeer kleine diertjes ... te beschouwen; ... Vervolgd met een berigt van de verbaazende ontdekkingen die door middel van vergrootglazen gedaan zyn: ... Bij deezen derden druk thans nagezien, verrykt met aantekenigen en vermeerderd met een aanhangzel, ... door Martinus Houttuyn.

Amsterdam, heirs of F. Houttuyn, 1778. 8°. With 28 folding engraved plates. Contemporary tanned half sheepskin. € 1275

Third edition of the expanded Dutch translation of Henry Baker's 1742 *The Microscope Made Easy*, well illustrated and with a nearly hundred-page appendix new to this edition. The first part of the book describes microscopes, including the lenses Antonie van Leeuwenhoek used, and techniques for studying microscopic objects. The second part describes discoveries made with the microscope, covering animals, plants, minerals, the human body, etc. The new appendix contains descriptions of new microscopes, some remarks on their use, and additional comments on the "little animals" that Van Leeuwenhoek had seen in human blood. Several authors contributed to part 3, including Baker, Adams, Di Torre and Lieberkuhn. The 28 engraved plates (half in the new appendix) show different kinds of microscopes as well as microscopic views of objects and materials. Some waterstains throughout the book, but otherwise in very good condition. Binding slightly damaged at the hinges, but otherwise very good. Modern bookseller's ticket. A very good copy of this popular and well-illustrated book on the microscope, with much text and numerous plates new to this edition.

36, 496, [16] pp. Van de Velde, Microscoop III, pp. 726–729. 🗠 More on our website



A basic instruction on clocks and watches

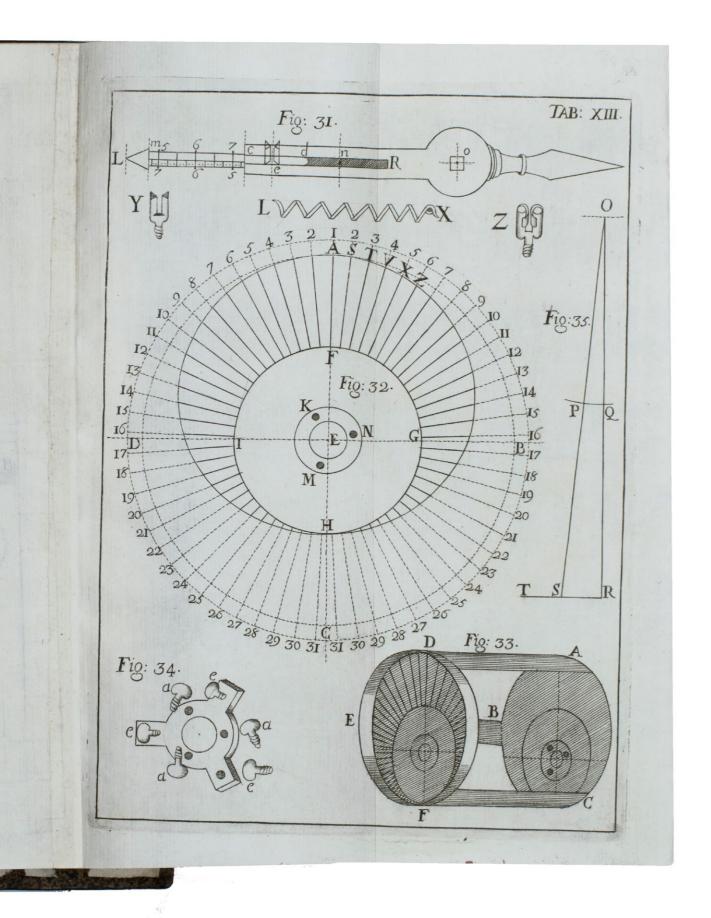
6. BERTHOUD, Ferdinand. l'Art de conduire et de régler les pendules et les montres: a l'usage de ceux qui n'ont aucune connoissance d'horlogerie.

Paris, for the author and Michael Lambert (colophon: printed by H.L. Guerin and L.F. Delatour), 1759. 12°. With illustrations on 4 folding engraved plates. Contemporary mottled calf, gold-tooled spine. € 1600

First edition of a basic instruction on clocks and watches for beginners in the profession or trade and for all owners of clocks and watches in general. Ferdinand Berthoud (1725–1807), was a famous Swiss mechanic of clocks, watches, chronometers and the like who lived and worked at Paris since 1745. He was the inventor of the marine clock, and together with Pierre Leroi he was considered the best in his field. Berthoud was a member of the Institut de France and of the London Royal Society. He wrote a considerable number of esteemed books on his specialty, of which the present is the primer on the subject, teaching the very first beginners in the field. The book was also published in Dutch.

With the bookplate of Renato Rabaiotti. Binding slightly rubbed near the edges. Very good copy.

XVI, 78, [2] pp. Poggendorff I, col. 168; Tardy, Bibliogr. Mesure du Temps 30; not in Bibl. Horlogère de Monsieur R.P. 🔛 More on our website



Important description of a new clockwork mechanism

7. **BONHOMO**, **Gabriele**. Automatum inaequale sive horologium antiquum automatis animatum. Opusculum sanè perutile, ac pro rei novitate jucundum, in quo multiplex datur. Hoc nondùm excogitatum automatum condendi methodus. ..

Palermo, Francisco Valenze, 1747. 4°. With numerous woodcut headpieces and tailpieces and decorated initials, some tables in the text and 15 numbered, folding engraved plates showing timepieces and clockwork mechanisms. Contemporary mottled calf, gold-tooled spine. € 1850

Important treatise on timepieces, describing a clockwork mechanism that indicates the solar hours of variable length. Riccardi calls Gabriele Bonhomo (1694–1760) one of the best mathematicians of the 18th century. In the present publication he includes an appendix with two interesting mathematical treatises and some astronomical tables. Bonhomo published all his works in Palermo, Sicilia.

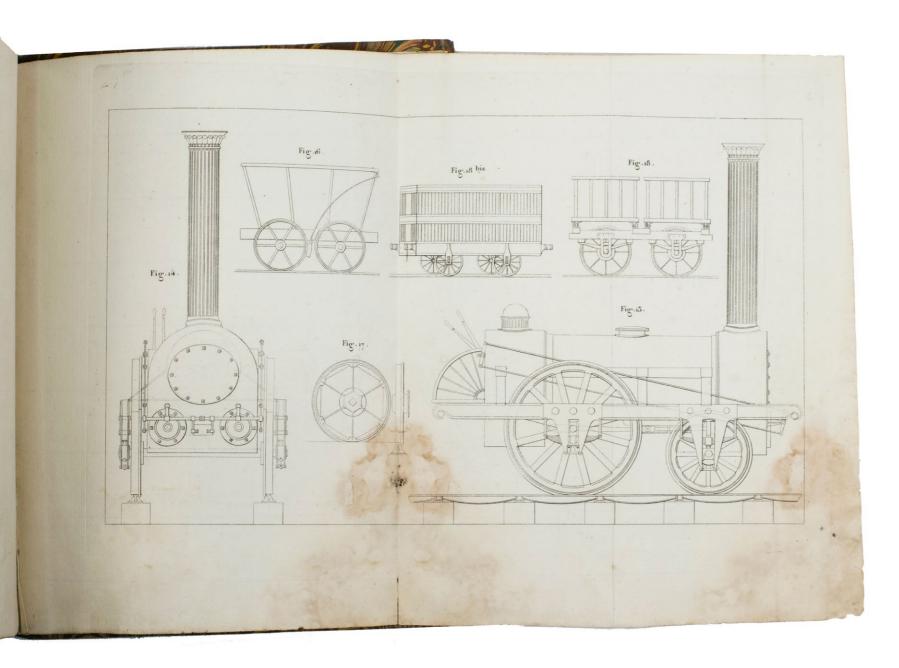
Good copy. Binding skilfully restored.

[8], 122 pp. Riccardi I 155; not in Honeyman. 🔛 More on our website

Handbook on building constructions by the designer of the first railroad in the Netherlands

8. BRADE, Willem Christiaan. Theoretisch en practisch bouwkundig handboek, ten dienste van ingenieurs, architecten, opzigters, timmerlieden, metselaars en verdere bouwkundigen (half-title of vol. 4: Verhandeling over de ijzere spoorwegen).

The Hague, A.J. & J.A. van Weelden, 1827–1834. 4 volumes. 4°. With numerous folding plates and tables. Uniformly bound in contemporary half calf with modern marbled sides, manuscript paper spine label. € 1250



Rare first edition of the first Dutch handbook on building constructions, also including the architectural orders by the civil engineer and architect Willem Christiaan Brade (1792–1858). Apart from interesting sections on laying foundations (underpinning), masonry, wood constructions including the construction of staircases, illustrations of the classical orders and many designs of public as well as private buildings (town halls, theatres, manor houses, etc.), the fourth volume is particularly devoted to the first railways, which were under construction in those years.

An additional, fifth volume to this series was published in 1844 (Amsterdam & The Hague, Van Cleef). This fifth volume is seldom found with these four volumes. A second enlarged edition appeared in 1842 in The Hague by the heirs of Dorman.

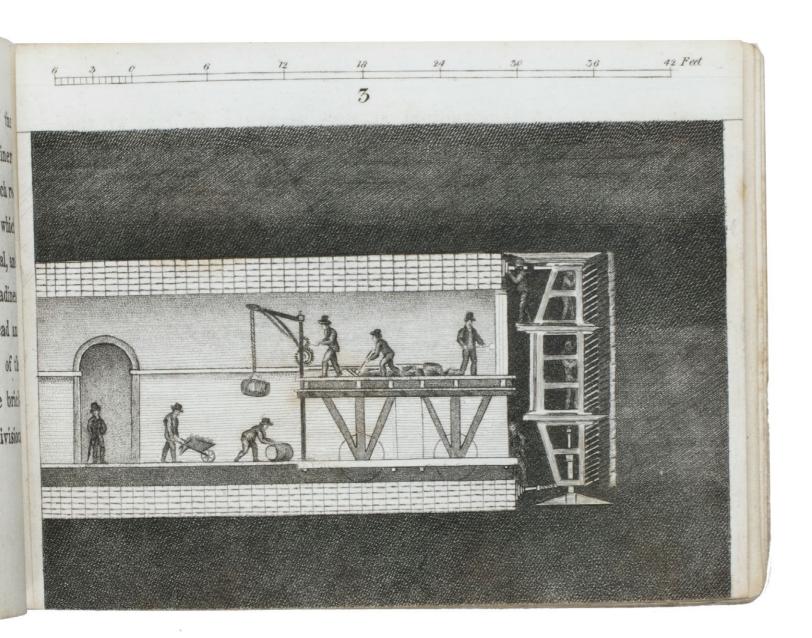
Some soiling, browning and staining, part of plate 2 in vol. 3 missing, repaired tear in the left-hand part of this plate and another restoration in plate 14. Otherwise still an uniformly bound and rare set in good condition.

XII, I–I36, I39–I62, I6I–I78 (continuing text), [23], [I blank]; [4], IV, I92; [4], II, 7I, [I blank]; VIII, I66 pp. *Bierens de Haan*, 548 (vol. 3), 549 (vol. 4). More on our website

Picturing the first tunnel constructed successfully beneath a tidal river, by the great rail engineer Brunel and his father

9. [BRUNEL]. Sketches of the works for the tunnel under the Thames, from Rotherhithe to Wapping.

London, Philanthrophic Society for Harvey & Darnton and C. Tilt, 1828. Oblong 8° (9.5 × 13.5 cm). With 14 plates (including steel engravings and aquatints): 2 folding sections showing the entire tunnel, 1 folding and 1 double-page map and plan and 10 full-page views, sections and other illustrations (one with an overlay). Contemporary marbled paper wrappers with a stiff beige paper strip around the spine and a lavendar title label on the front board. € 2500



First edition of a fascinating and fragile pictorial and written record of the first tunnel constructed successfully beneath a navigable river, with a 5-page "Introduction to sketches of the tunnel works" and explanations throughout of the plates showing longitudinal and traverse sections, and the machinery and mechanisms involved, including a fine engraving with overlay depicting the revolutionary "tunnelling shield". Further editions followed in 1829, 1830 and 1831.

The civil engineer Marc Isambard Brunel (1769–1849) proposed the use of his ingenious "tunneling shield", invented with this and similar projects in mind (patented in 1818), to protect the workmen and support the freshly exposed parts of the walls and ceiling as they bore the tunnel.

The tunnel was eventually converted for use as a railway tunnel in 1869 and was a part of the East London Line of the London Underground until 2007. It remains in use since 2010 as part of what is now called the London Overground network.

Covers slightly shaved, otherwise in good condition.

[15] ll. Goldsmiths'-Kress 25617, 25942.13; cf. David Lampe, The tunnel; the story of the world's first tunnel under a navigable river dug beneath the Thames, 1824–42 (1963). More on our website

Expedition to observe the transit of Venus in Siberia

10. CHAPPE D'AUTEROCHE, Jean Baptiste. A journey into Siberia ... containing an account of the manners and customs of the Russians, the present state of their empire; with the natural history, and geographical descriptions of their country ...

London, T. Jeffreys, 1770. 4°. With folding map (26.5 × 51.5 cm), partly hand-coloured, and 9 etched plates (1 folding, 8 full-page). Modern sprinkled calf. € 2000

The first English edition. Abbé Jean Chappe d'Auteroche, a French astronomer, was sent to Siberia to observe the transit of Venus, which was due in June 1761 and had great scientific importance, since it could be used to estimate the size of the solar system. From St Petersburg Chappe d'Auteroche sledged to Tobolosk, where he spent several months, observing the transit and carrying out a large number of scientific measurements. After his return he published his *Voyage en Siberie* (1768). It describes Siberia's geography, natural history, and the culture of its inhabitants, and sharply condemns Russia's political regime. The plates show native inhabitants in their respective dress, and a view with Russian sledges.

With an ink stamp of a contemporary owner "W*James" on title-page, and manuscript additions and corrections. He appears to have travelled in Siberia himself and took a special interest in low temperature studies. On the plate of the Reaumur and Fahrenheit temperature scales he has drafted extensions below o degrees Fahrenheit (down to – 198 degrees Fahrenheit) and his annotations give low temperatures recorded at various locations in Siberia. He also reports results of sometimes gruesome low temperature experiments with animals or even (hopefully accidentally) with people. With two edges of the folding map slightly tattered, not affecting the image, but further in very good condition, with only a couple very minor stains.

XIII, [7], 395, [1] pp. Cat. Russica C495; ESTC T70180; Howgego, to 1800, C101; not in Chavanne. More on our website



Spanish handbook of chronography, with numerous woodcut illustrations

11. CHAVES, Jérôme de. Chronographia o reportorio de tiempos, el mas copioso y precisso, que hasta ahora ha salido a luz.

Sevilla, Fernando Diaz, Faustino de Magarino (colophon: printed by Fernando Diaz), 1584. 4°. With title printed in red and black with woodcut portrait of the author, Diaz's woodcut printer's device below the colophon on the last page, 2 full − or nearly full-page woodcuts, 19 half-page woodcuts, 7 half-page round woodcuts, and 43 small round woodcuts of phases of the moon. Many letterpress tables of the positions of the sun and moon, calendars, movable feasts, etc. Sheepskin parchment by Domingo V. Folch of the national bindery in Valencia (2nd half of 19th century), gold-tooled spine. € 12 500

Seventh edition of an important, lavishly illustrated and very popular work on the calendar, the movements of the sun, the planets and the moon, the holidays, the constellations and the signs of the zodiac, by the Spanish chronographer Jérôme de Chaves.

With a manuscript note on the title-page by Fr. Jacintho Aime and Fr. Luis Albeto, dated 19 July 1648, regarding the opinion and judgment of the Inquisition on this work in 1640. In good condition, somewhat browned and foxed, with a worm hole in the head margin of the first five quires neatly repaired, occasionally affecting a running head, lacking the final blank and with the foot margin of the last printed leaf cut off, removing a manuscript inscription, minor marginal water stains in a few leaves.

192, 201–"163" [= 263] ll. Leclerc, Bibl. Am. 2710; Medina 282; cf. Palau 67457 (1588 ed.). More on our website

TRACTADO. ANNO.M.D.LXX.



Lunes veynte dias del mes de Febrero sera eclipse dela Luna. Coméçara a las tres horas y cincueta y seys minutos de la tarde. El medio sera a las cinco oras y. xlvj.mi nutos. El fin sera a las sietehoras y

reynta y seys minutos. Eclipsarse ha la luna por cator ze punctos y quarenta minutos, estara en tiniebla vna hora y ocho minutos. El color sera verde y negro.

ANNO.M.D.LXX.



Martes quinze dias de Agosto a - ura clipse de la lua. Coméçara a las seys oras y diez y nueue minutos. El medio sera a las ocho oras y nue ue minutos. Acabara alas nueueho ras y cincuenta y nueue minutos de la noche. Eclipsarse ha la Luna por

deziseys púctos y veynte minutos. Estara en tiniebla vna hora y veynte y quatro minutos. El color sera ver de y negro

ANNO.M.D.LXXII:



Miercoles aveynte y cinco di mes de Iunio aura eclipse de la Luna. Començara a las siete horas y dos minutos, el medio sera a las ocho oras y nueue minutos. Acabara a las nueue horas, y diez yseys minu tos, eclipsarse ha la luna tres pútos

y cincueta y seys minutos por la parte meridional.

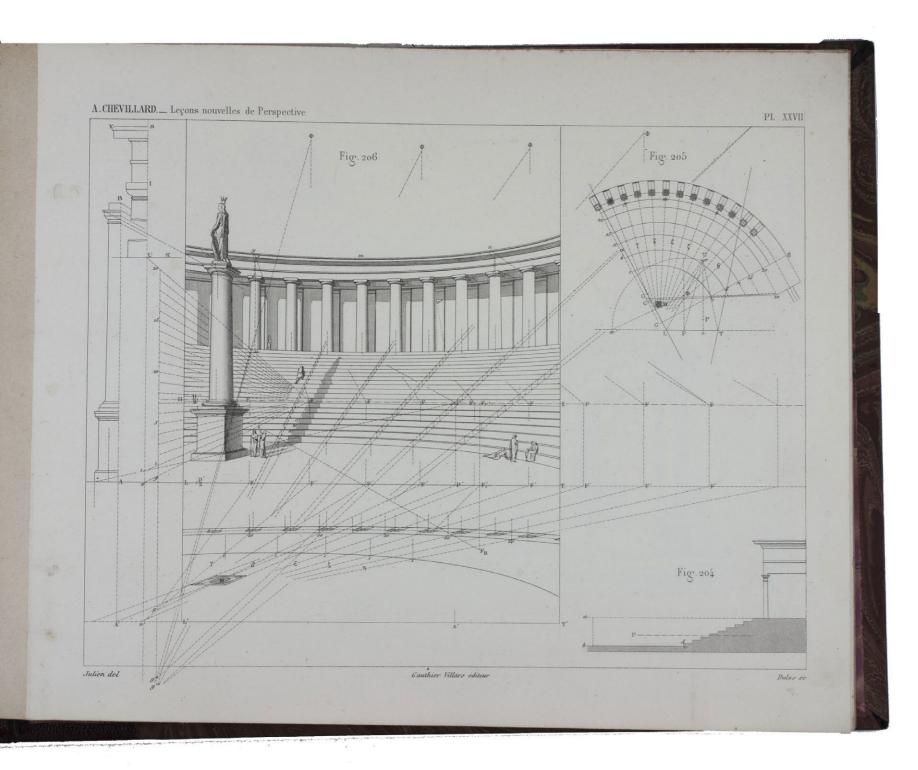
martes

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Lessons in perspective during the Second Empire

12. CHEVILLARD, Alphonse. Leçons nouvelles de perspective, ... Avec atlas de 32 planches in – 40.

Paris, Gauthier-Villars, 1868. 2 volumes. 8° (text) and oblong 4° (atlas). Atlas volume with 32 steel-engraved plates by Dulos after the author. Contemporary uniform half maroon sheepskin, gold-tooled spines. € 950



Rare first edition of a series of lessons on perspective, The work is divided into 11 chapters, beginning with a chapter on definitions and principles followed by chapters on the perspective of shadows, inverse perspective, circles, cylinders and cones, etc. The author was professor at the École Impériale des Beaux-Arts (School of Fine Arts) in Paris, known from 1819 to 1863 as the École Royale des Beaux-Arts. The atlas volume has a letterpress title-page and index to the plates.

Somewhat foxed throughout, but still in good condition. The sheepskin chafed and the bookblock of the atlas volume has detached from the binding.

XVI, 228 pp; [2] ll. plus 32 engraved plates. *Vagnetti FIb92;* WorldCat (3 copies that include the atlas). > More on our website

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41

t Werck van de derde beantwoordinge.

't Werck van de vierde beantwoordinge.

In't bewercken van dese somme, soo let op de instructie van de navolgende NOTA.

Item/divideert 17699616 met 5436. so komter facit 3256.

Item / 8092595. gedivideert met 3451. komt facit 2345.

Item / divideert 15734678. met 5437. komt facit 2894.

C 5

Item/

Rare 17th-century edition of standard arithmetic schoolbook: second copy located

13. COCK, David. De cyfer-konst, noyt voor desen den leerlingen grondiger, noch ook duydelijcker, voorgestelt. ... Den vijfde druck, van alle mis-druck gesuyvert, verbetert, ende merckelijck vermeerdert, door Dirck de Hollander...

Amsterdam, widow of Gysbert de Groot, 1696. Small 8° (15 × 9.5 cm). 19th-century(?) sheepskin parchment. € 1950

Second copy located of the 1696 edition of Dirck de Hollander's standard revision of a standard Dutch mathematical exercise book (with answers) for use in schools. The present edition describes itself as the fifth, but is at least the tenth and probably little changed from the 1685 edition, which also called itself the fifth. All 17th-century editions are very rare, the STCN recording 3 copies of one (1664) and no more than 2 copies of any other (some are not recorded in the STCN at all). The simple assignments are designed to teach basic arithmetic and bookkeeping for practical commercial purposes. David Cock was an Arnhem school master, active as such in at least the years 1641 to 1652. His present text book was his most successful work, with many further editions and adaptations to 1799.

Slightly browned, but still in good condition. Boards slightly warped. A valuable window into 17th-century Dutch education and training for trade and commerce.

[8], 374 pp. Bierens de Haan 902; Muller, Pop. proza 1050; STCN (1 copy); WorldCat (same copy); cf. Bywater & Yamey, pp. 103–104. More on our website

Sea salts not whale sperm

14. CORDUS, Valerius. De halosantho seu spermate ceti vulgo dicto, liber nunc primum in lucem abditus.

Zürich, [Jacob Gessner], 1566. 8°. With woodcut printer's device on title-page and a woodcut initial. Modern paper boards, early marbled edges. € 1500

First and only edition of a treatise on certain salts sometimes found in crystaline "efflorescences" from the surface of the sea, which Dioscorides and Galen had recommended for the treatment of skin diseases. The Hessian doctor and botanist Valerius Cordus (1515-1544) left this treatise unpublished at his premature death, and Conrad Gesner added a preface and "Corollarium" for its posthumous publication in his compilation, De omni rerum fossilium genere, but the treatise with corollarium is separately signed and foliated for separate publication as well. Gessner's corollarium, slightly longer than the treatise itself, refutes the popular notion that these salts were the sperm of whales.

Slightly browned with some occasional stains, once resulting in a small hole (leaf 9), and some, mostly marginal, foxing. Bookblock detached from binding, otherwise in good condition.

[3], 37 ll. Adams, G-522/[5]; Durling 1033; Osler 646/[5]; Sinkankas 2366/5. > More on our website

HALOSAN= THO LIBELLVS: VAlerio Cordo authore.

Back to the

I quis etymologiam Halòs antheos inquirat, duplicem inueniet interpretandi occasionem. signifi

cat enim tam maris quam salis flore. Nam Græcis ans, cui genitiuus est á-Nos, mare & fal vocatur: αὐθ verò ijfdemidé est quod Latinis flos. Vtrog itaq vocabulo nominatum medicamenancipitem interpretationem of-Quod Ha- fert. Quod sisalis florem interprete no sit flos ris, necesse est hoc medicament u esse cuiuscung salis flore, hocest, tenuissimam, candidissimam at q optimam salis partem, siue hæcin eam naturam ex muriain salinis cocta transierit, siue in salis fodinis sponte effloruerit. At quoniam huiusmodi salis flos no in mari gignitur, vt Halosanthos: sed aut in salinis fit, aut in fossitij salis cu-

falis.

nicu-

Greatly expanded second (and final) Dutch edition of Descartes's collected works

- **15. DESCARTES, René.** Principia philosophiae: of beginselen der wysbegeerte [and other works]. With:
- (2) Meditationes de prima philosophia of Bedenkingen van d'eerste wysbegeerte [and other works].
- (3) Proeven der wys-begeerte; ofte Redenering. Om door bequame middelen de reden wel te leiden [and other works].
- (4) Brieven, aan veele hoog-geagte personen, van verscheyde ampten, geschreven.

Amsterdam, Jan Claesz ten Hoorn, 1690–1692. 4 volumes. 4°. With an engraved frontispiece and engraved portrait of the author in volume 1, and about 200 woodcut diagrams and other illustrations (including about 5 full-page) plus repeats. Contemporary and largely uniform blindtooled vellum. € 22 500



Surprisingly rare complete set of the greatly expanded second Dutch edition of the collected works of René Descartes, translated from the Latin by Jan Hendrik Glazemaker, here adding well over 300 pages of additional works. Descartes (1596–1650), one of the most brilliant and original thinkers of all time, was born and educated as a Catholic in a Protestant region in France's Loire valley, but worked as a military engineer for the Dutch Protestant army in his early years and returned to the Dutch Republic in 1628 to study further at the universities there. He remained for twenty years, taking advantage of the Republic's intellectual freedom and Amsterdam's position as the most important centre of the world book trade. Descartes established our modern notions of empirical science and built the foundations for the work of Spinoza, Newton, Leibniz and many others. His work ranged widely over the fields of philosophy, mathematics, mechanics, light and optics (including practical aspects, such as lens grinding and telescopes), astronomy, ballistics, anatomy, sexual reproduction, music, "passions of the soul" and much more, all covered in the present collected works. In nearly every field he made major contributions to knowledge, often debunking widely held beliefs. Volume 4 contains his correspondence.

The principal works named in the four titles above are accompanied by numerous additional works Some browning at the end of the main text in volume 1 and in the middle of volume 2. Still in very good condition with further only occasional minor browning or foxing and a small marginal tear in one title-page, and with large margins. The bindings slightly dirty but still very good. The definitive Dutch edition of Descartes's works: nearly 3000 pages in 4 volumes.

[28], 380, [16], [1], [1 blank], 118, 76, [8]; [16], 575, [5], [16], 99, [5]; [8], 54, 79–510, [10], [4], 116; [8], 664, 268 pp. STCN 101908407, 850528100, 850527104, 850527074 (5 sets of all 4 volumes plus individual volumes); cf. Guibert, Descartes bibliographie ... 17e siècle (recording Latin and French eds. only). >> More on our website

Dutch translation of the most successful and influential geometry textbook ever written

16. EUCLID and Jan Pieterszoon DOU. De ses eerste boecken Euclidis.

Amsterdam, Willem Jansz. Blaeu, 1626. 8°. With numerous woodcut geometrical figures in the text. Contemporary vellum. € 1500

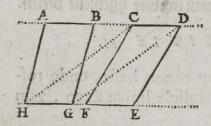
Fourth, corrected Dutch edition of the first six books of Euclids *Elements*, translated and edited by the surveyor Jan Pieterszoon Dou. The *Elements* is a mathematical and geometrical treatise consisting of in total 13 books written by the Greek Euclid in Alexandria in circa 300 BC. It comprises a collection of definitions, postulates (axioms), propositions (theorems and constructions), and mathematical proofs of the propositions, covering Euclidean geometry and the ancient Greek version of elementary number theory. With old manuscript entries and some occasional waterstains and wormholes. A good copy.

[14], 224 [2 blank] pp. Bierens de Haan 1220; STCN (4 copies). 🔛 More on our website

28 Het eerste Boeck Euclidis parallele linien/ ende parallele linien geven gelijche hoogs te te verstaen.

PROPOSITIE. 36.

Alle parallograms, die op ghelijcken basis, ende tusschen twee rechte parallele linien staen, zijn even groot.

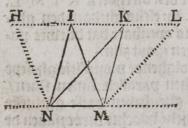


TOgschen de twee pas rallele linien AD, HE, staen twee parals lograms AG, ende CE, den basis HG is ghelijck FE, die twee parallograszijn even groot.

ghetoghen de linien H.C, G.D, die zijn (veur de dzie en dertichste propositie) parallel / ende maken een parallogram C.G, 'twelck deur de voorgaende even soo groot is als A.G, ende ooch als C.E, 'tvolght dat de parallograms A.G, C.E even groot zijn/ deur de eerste ghesmeene bekentenis.

PROPOSITIE 37.

Alle triangels die eené basis hebbé, ende tusschen twee rechte parallele linié staé, zijn even groot.

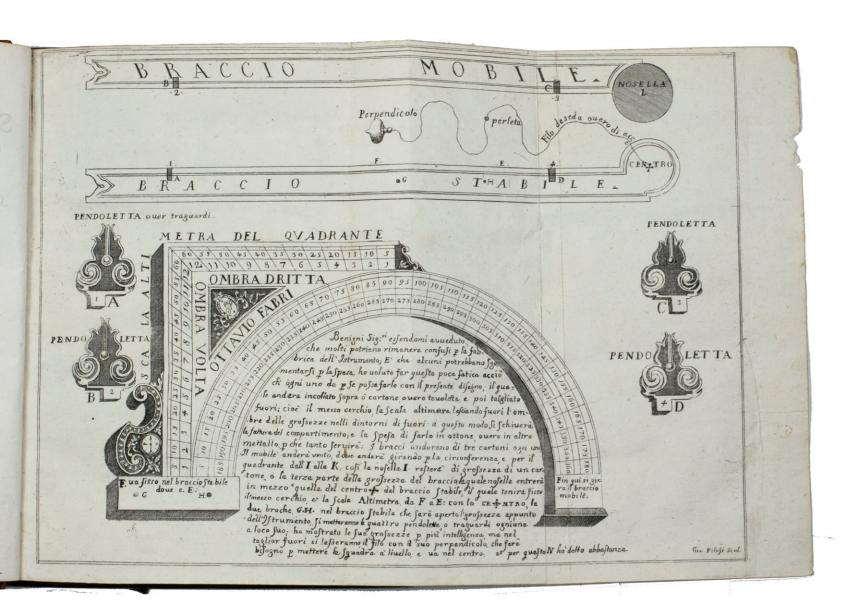


Tosschen de parallele linien N M,H L staë twee triangels/als N I M, N K M op eenen basis N M, die zijn even groot. Demonstrat. Dan't punct M is ghetoghen M L parallel

Classic of surveying & instrument-making

17. FABRI, Ottavio. L'uso della squadra mobile, con la quale per teorica, e pratica si misura geometricamente ogni distanza, altezza, e profondità; ... accresciuta in questa terza edizione di parecchie istruzioni, ..., ec. da Giovanni Vettori.

Trent, Stamparia Vescovile Paroniana [= Giambattista Parone, printer to the Diocese of Trent], 1753. 4°. With engraved architectural title-page, 1 unnumbered folding and 3 numbered illustration plates, 25 engraved illustrations in the text, engraved arms of the dedicatee, 1 engraved pictorial initial letter. Richly gold-tooled contemporary tanned sheepskin, silk ties, gilt edges. € 3500



Ninth copy located of the "third" (actually fifth) and last edition, revised, expanded and extensively illustrated with new plates, of a classic work on surveying and mensuration, with instructions and patterns for making a theolodite. The large folding plate (19.5 \times 27.5 cm) showing the theolodite was probably designed to be cut up by the person who wished to make one, the paper scales, pointers, etc. being pasted on the surface of the instrument, which might be made of metal, wood or cardboard. The theolodite is shown again in the first plate in the text, and other plates show its use for measuring height, distance, depth, etc. in a wide variety of circumstances, both on land and aboard a ship. The book covers the theory as well, and the 3 numbered plates at the end show plane and solid geometrical figures, and scales of inches ("oncie") for 25 Italian cities.

With bookplate. In very good condition, with only occasional minor spots or stains. The binding is good, though the spine is slightly damaged and the finisher apparently used a poor grade of gold for the tooling, as much of it has oxidized or even rubbed off, though the tooling itself remains clear. A very rare expanded and extensively illustrated edition of a classic of surveying.

XII, 9–144 pp. Riccardi I, F-col. 434; KVK (2 copies); WorldCat (same 2 copies); Cat. Bibl. Trentino (6 copies in 3 Trento libraries); cf. Ist. Cent. Cat. Unico (other editions). > More on our website

Warhaffeige und Gründliche Solution ober Aufflößung einer Hochwichtigen Frag.

Wie mann die Pristen/ welche

ohne Anteresse / aufscheinste Ziel und Zeit hinauf zubezahlen verfallen / wann manns auff einmahl vorher mit Abzug eines gewissen percento, einfachen Interesse das nie Interesse aufschiefe das nie Interesse auf I

Sem gemeinen Nutzen zu gutem / Samit sich die jent, ge welche dergleichen mit einander Contrahirn, etlicher massen zu reguliren wisten/ vnd mit vngerechtem Gut nit beladen: oder Ihre gwissen beschwerdt werden. In offinen Truck publiciert.

Durch:

Johannem Faulhabern/ bestelten Rechenmeister vund Modisien/ Inn Vim.



Sedruckt zu Sim/durch Johann Deder/im Far M DC XVIII.

First edition of important early work on compound interest

18. FAULHABER, Johann. Warhafftige und gründliche Solution oder Aufflößung einer hochwichtigen Frag.

Ulm, Johann Meder, 1618. Folio. 19th-century(?) half sheepskin parchment. € 14 500

Rare first and only edition of a work solving a mathematic problem concerning the calculation of compound interest, by Johann Faulhaber (1580–1635), teacher of mathematics at Ulm. Faulhaber, trained as a weaver under his father, soon turned to mathematics. He became the most important of the "Cossists", mathematicians concerned with algebra in the 16th century. After publishing his first arithmetic text, Faulhaber founded his own school in Ulm in 1600, which gained international fame as an educational institute for higher mathematics and later also an artillery and engineering school. He taught Descartes and had a lively contact with Keppler. Faulhaber was also the first to introduce logarithms into Germany and was much in demand as fortification engineer, receiving many assignments in this field from the King of Sweden and others. He published numerous mathematical works, mostly in German, and invented several instruments. With library stamps. In good condition, with some worm holes in the gutter margin, not affecting the text, and some minor water stains.

[2], 26 pp. DSB IV, p. 552; VD 17, 23:297705X (2 copies); WorldCat (3 copies). 🔛 More on our website

no de luno sa tutto laltro numero e mettesse da canto come vedi, e poi se multiplica li centenara sia tutto l'altro e mettese sotto la multiplicatione delli miliari mettendo numero sotto numero e decena sotto decena, &c. E poi multiplica le decene sia tutto laltro numero e mettilo sotto allo preditto. E puo multiplica el numero sia tutte laltre opposite sigure, e metti otto come ho ditto di sopra. E poi summa come se fanno le altre summe, & hauerai de produtto 646 i 866 & e tanto sa 9876 sia 6543, e cosi sarai tutte le simile. E se serai accorto el basta a multiplicar vna sola sigura per tutte le altre ponendo le nulle che sono nel mil ar e contenaro e decena &c. Cosme vedi qua da canto che e bello &c.

me vedi qua da canto che e bello &c.

Mortiplicare per modo de quadrilatero.

Mortiplicar per quadrato vel quadrilatero prima el te bitogna fare vno quadrato come tu vedi qua da canto elqual bifogna fempre chel fia vno quadreto piu longo, e poi acconza gli numeri come vedi el mazor di fopra, elo menor dallato da man finestra. Come se hauesti a multiplicare 6876. sia 6543. Hor comenza dalla prima figura da man dritta e di 3, sia 6. sa 18. e metti 8. nel primo quadretto di so pra e tiene 1, e di 3, sia 7, sa 2 1. e i. che tenesti sa 2 e e metti 2. nel secondo quadreto e tiene 2, e di 3, sia 8, sa 2 4. e 2, che tenesti sa 26 e metti 6, nel terzo quadretto e tiene 2. e di 3, sia 9, sa 27, e 2, che tenesti sa 29, e metti 29, nel quarto e quinto quadretto, e poi di 4, sia 6, sa 24, e metti 4, nel primo quadretto o nel secondo quadretto e tien 3, e di 4, sia 8, sa 32. e 3, che tenesti sa 35, e metti 5, nel terzo quadretto e tien 3, e di 4, sia 9, sa 36. e 3. che tenesti sa 39, e metti 139, nel quarto e quinto quadretto so poi di 5, sia 6 sa 30, e metti 1 nulla nel primo quadretto so quadretto e poi di 5, sia 6 sa 30, e metti 1 nulla nel primo quadretto so quadretto e di 5, sia 9, sa 40, e 3, sa 43, e metti 3, nel terzo quadretto e di 5, sia 9, sa 40, e 3, sa 43, e metti 3, nel terzo quadretto e di 5, sia 9, sa 40, e 4, sa 49, e metti 6, nel primo quadretto e di 6, sa 7, sa 42, e 3, sa 45, e metti 5, nel secondo quadretto e di 6, sa 7, sa 42, e 3, sa 45, e metti 5, nel secondo quadretto e di 6, sa 8, sa 40, e 3, sa 45, e metti 5, nel secondo quadretto e di 6, sa 8, sa 48, e 4, sa 52, e metti 5, nel secondo quadretto e di 6, sa 8, sa 49, e 3, sa 59, e metti 5, nel secondo quadretto e di 6, sa 8, sa 48, e 4, sa 52, e metti 5, nel secondo quadretto e di 6, sa 8, sa 49, e 3, sa 59, e metti 5, nel secondo quadretto e di 6, sa 8, sa 49, e 3, sa 59, e metti 5, nel secondo quadretto e di 6, sa 8, sa 49, e 3, sa 59, e metti 5, nel secondo quadretto e di 6, sa 8, sa 49, e 3, sa 59, e metti 5, nel secondo quadretto e di 6, sa 8, sa 49, e 3, sa 59, e metti 5, nel seco

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"Few books had greater influence on the subsequent teaching of elementary mathematics"

19. FELICIANO, Francesco. Libro di arithmetica & geometria speculativa & praticale ... intitulato Scala Grimaldelli: novamente stampato

(Colophon: Venice, Francesco de Leno), 1563. 4°. With the title in a 5-piece woodcut border with an allusive woodcut illustration (ladder and key), and with numerous woodcut diagrams, geometric figures and other illustrations printed in the large fore-edge margin. Contemporary sheepskin parchment. € 2750

1563 edition of a popular Italian treatise on arithmetic and geometry by the Italian mathematician Fransesco Feliciano da Lazesio (1570–1542). First published in 1526 at Venice, it became immensely popular and went through many, revised editions, the present edition probably being the 8th. It is divided into three parts, starting with an introduction, followed by a part on arithmetic and roots and a part on practical geometry and measurements. When first published it was the first book describing the use of the surveyor's cross, an innovative tool at a time when long distances were often merely estimated by sight. "Few books had greater influence on the subsequent teaching of elementary mathematics" (Smith). The work is generally known as the *Scala grimaldelli*. "The author explains the original title with a drawing on the front [title-page] depicting an actual ladder and a key, accompanied by a sonnet ... suggesting that you need a ladder (scala) to attack the castle and a key (grimaldello) to open the lock, just as you need a book to gain access to knowledge" (Gallozzi). Slightly browned, with a few marginal water stains and some occasional foxing and minor stains. Binding only slightly worn at the extremities. Overall in good condition.

[80] Il. A. Gallozzi, "Francesco Feliciano de Scolari" in: Distiguished figures in descriptive geometry... (2016), pp. 53 − 65; Riccardi I, L-col. 22; D.E. Smith, Rara arithmetic, pp. 146–148. ► More on our website

Three articles on Jupiter's moons, their eclipses & a lunar eclipse, with an engraved astronomical calculating dial

20. FLAMSTEED, John. Observationes defectus lunaris Grenovici habitæ in observatorio regio februarii 11/21 1682. p.m.

[London, 1683]. From *Philosophical Transactions*, vol. 13, pp. 89–92. *With:*

(2) **FLAMSTEED**, **John.** An abstract of a letter from Mr. J. Flamsteed, ... giving an account of the eclipses of [Jupiter]s satellits, anno 1686; and containing a table of the parallaxes of [Jupiter] s orb, and an ephemeris of [Jupiter]s geocentric places for the same year.

[London, 1685]. From Philosophical Transactions, vol. 15, pp. 1215–1230.

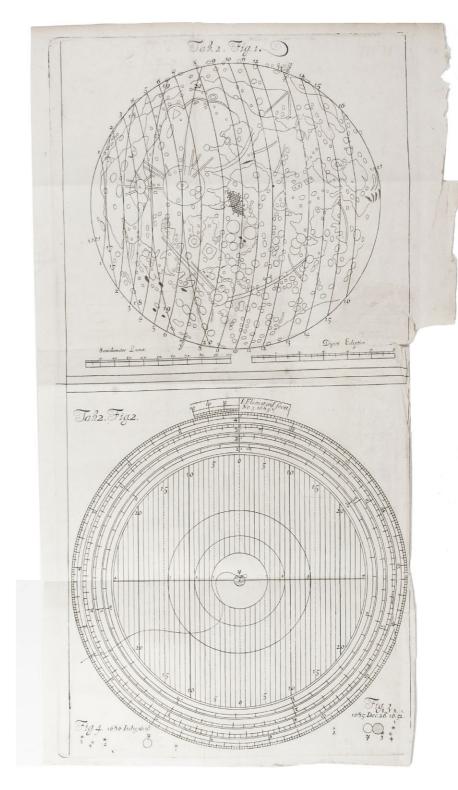
(3) **FLAMSTEED**, **John.** An abstract of a letter from Mr J. Flamsteed. ... giving the description & uses of an instrument for finding the distances of [Jupiter]s satellits from his Axis, with the help of the table of parallaxes and catalogue of eclipses; printed in the preceding Transactions. [London, 1685]. From *Philosophical Transactions*, vol. 15, pp. 1262–1265. With an engraved astronomical instrument for calculating the positions of Jupiter's moons. 3 parts. 4°. Disbound. € 1850

Three astronomical articles (2 in the form of letters) by England's first Royal Astronomer, John Flamsteed (1646–1719) at the Greenwich Observatory from its establishment in 1675, published in the *Philosophical Transactions* of the British Royal Society in the years 1683 and 1685. The first article gives observations of a 1682 lunar eclipse by Flamsteed himself, Edmund Halley and a certain Haynes. The second gives Flamsteed's calculations of the eclipses of Jupiter's four moons for the coming year 1686, intended in part as an aid to the determination of longitude. The third gives an engraved dial with four scales around its perimeter, with Flamsteed's description of its use to calculate the positions of Jupiter's moons..

Flamsteed's magnum opus, his great star catalogue and charts, appeared posthumously in 1725 and 1729, so his most important publications during his own lifetime were a single book in 1680 and a dozen short astronomical articles in the years 1672 to 1686, three of them present here.

The articles and plate have been disbound, but they are otherwise in very good condition, with only some minor spots in the text and a couple tears (one repaired). Three of Flamsteed's rare non-posthumous astronomical publications, with an engraved plate of his calculating dial.

89–92; 1215–1230; 1262–1265 pp. for Flamsteed's life: DSB V, pp. 22–26. 🄛 More on our website



ELOGIO D'ISACCO NEWTON.

'Uomo virtuofo, l'uomo fenfibile, l'uomo ragionatore, che leggendo, e considerando le storie delle antiche nazioni, e trovandovi una lunga serie di vizi, di barbarie, e di errori, s' alza molte volte dai libri sdegnandosi, e rattristandosi colla stessa sua specie, per poterne formare un idea migliore, e trovar degli oggetti più consolanti bisogna che si rivolga alla storia degli uomini di lettere. La facra luce della virtù non è spuntata che lentamente sulle civili società: non si è dissusa dagl' individui alle società intere che folamente in alcuni climi felici, e in qualche fecolo privilegiato: ed ha avuto sempre degli oscuri intervalli di frodi, di rapine, di stragi, di atrocità. Dappertutto vi sono state carnificine, e carnefici : non vi è parte ancora più piccola del corpo umano, in cui non fiasi trovata l'arte di portare i dolori più acuti: non vi è prodotto, non vi è elemento della natura, che non si sia variamente impiegato per rendere l'altrui morte più lenta, e la vita più tormentosa. La sensibi-A 4

Eulogies of four famous scientists

21. FRISI, Paolo. Elogio del cavaliere Isacco Newton.

[Milan, Guiseppe Galeazzi, 1778].

With:

(2) FRISI, Paolo. Elogio del signor D'Alembert.

Milan, Guiseppe Galeazzi, 1786.

(3) FRISI, Paolo. Elogi di Galileo Galilei e di Bonaventura Cavalieri.

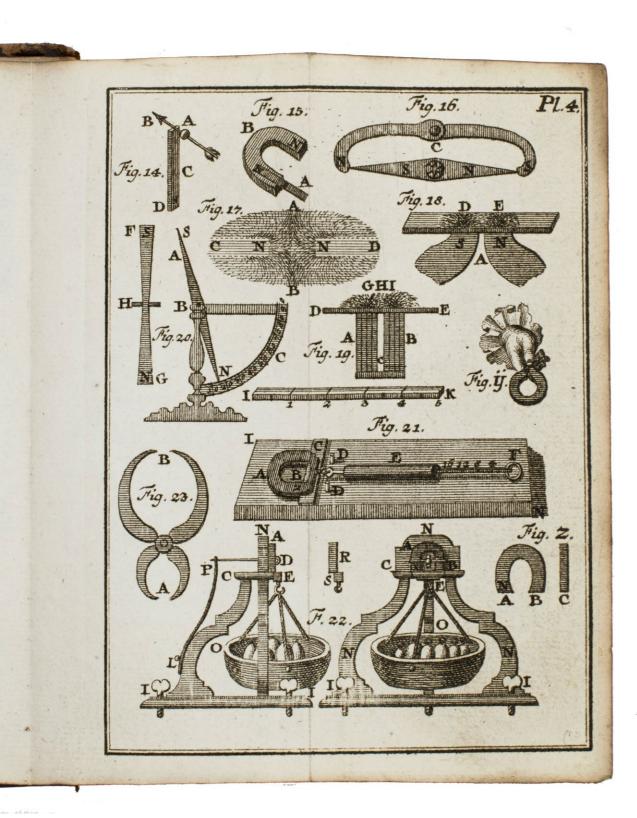
Milan, Guiseppe Galeazzi, 1778. 3 works in 1 volume. 8°. Contemporary half sheepskin parchment. € 1250

Four eulogies, written in Italian by the astronomer and mathematician Paolo Frisi (1728–1784), paying respects to Isaac Newton (1643–1727), Jean le Rond d'Alembert (1717–1783), Galileo Galilei (1564–1642) and Bonaventura Cavalieri (1598–1647). The latter two, written more than 100 year after their death, are published together in one work.

Paolo Frisi (1727–1784), was himself a celebrated scientist, professor at Padua, later at Milan, who had travelled in France, England and the Netherlands, making friends with the famous scientists of these countries. He published a large number of scientific works, earning for himself an award and the membership of the Academy of Science at Paris. His eulogies remain of interest as they show the changing opinion of the scientists and are still cited today.

Some thumbing to the title-page, the third work slightly browned, spines partly cracked; a good copy.

132; 81, [1 blank]; 107, [5], 53, [1] pp. ICCU 011989, 003145 & 000950; Riccardi I, p. 489, Frisi 37, 46 & 38.1. More on our website



Rare science manual from Venlo

22. GEUNS, Petrus. Memoire sur les aimans. Ou description succinte de tout ce qui est necessaire pour la construction de toute sorte d'aiman imaginable; le changement de pôles suivant l'axe ou suivant les cotés de la pierre d'aiman. La construction & trempe des aiguilles de boussole. Une mémoire sur l'engrenage pour les horloger & autre artisans. Et pour les amateurs de l'histoire naturelle deux méthodes pour fermer les bocaux contre evaporation de l'esprit de vin.

Venlo, au dépens de l'Auteur, 1768. 8°. With a folding engraved table and 5 folding engraved plates with technical illustrations and figures. Contemporary calf. € 1250

First edition, in the original French, of a very rare Venlo-printed manual on magnetism, watch-making and techniques for producing a vacuum. It teaches the reader how to construct all kinds of magnets, including compass needles, gives observations on clockwork mechanisms, and explains methods of creating a vacuum. The title notes that this last would be very useful for collectors of natural history specimens and the preservation of wine. The plates are quite intricate and show an arrangement of equipment, including a jar with a dragon-like creature in it.

The book was published at the expense of the author, probably for private or special education. The apparent success prompted translations into German (1769) and Dutch (1775) and a second French edition (1775).

Part of publisher's address struck through with black ink and the word "Venloo" written in ink on title-page. Small piece of head of title-page missing. Binding rubbed. Otherwise in good condition.

XXIV, 143, [7] pp. Cf. Bierens de Haan (Dutch ed. of 1775). 🔛 More on our website

Illustrated work on fortification and artillery

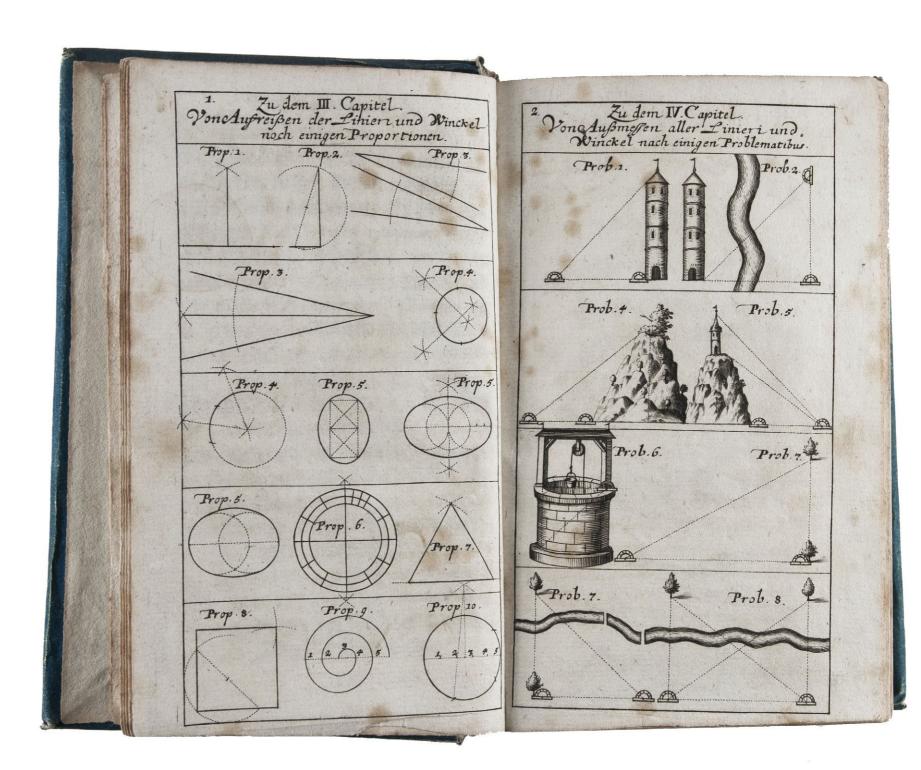
23. GRUBER, Johann Sebastian. Neuer und gründlicher Unterricht, ... Nebenst einem Bericht von Zubereitung einiger Ernst-Feuerwerckes-Kugeln.

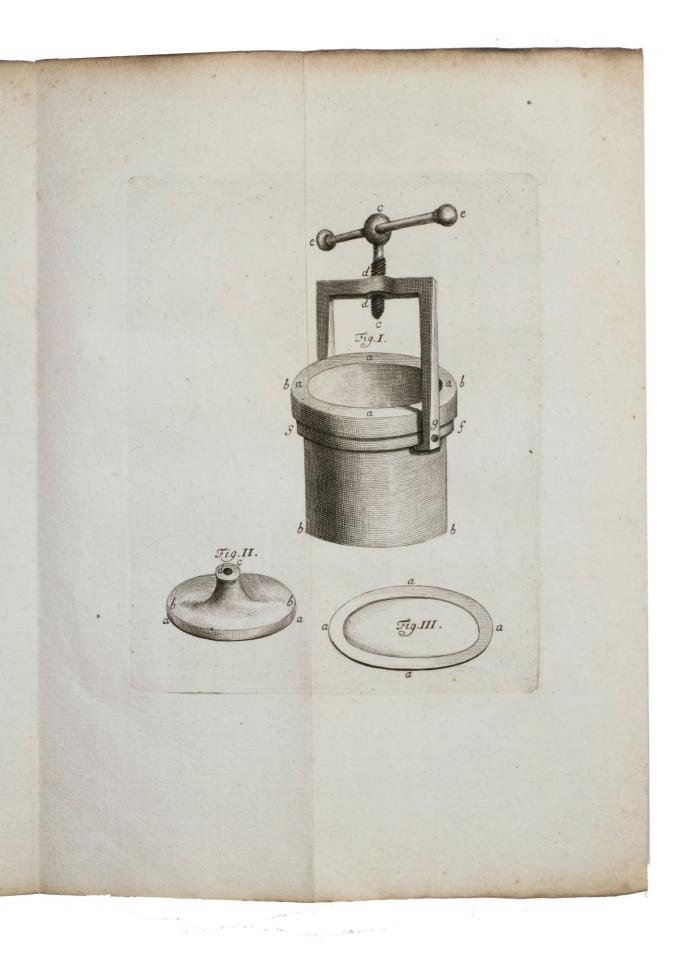
Nuremberg, Johann Hoffmanns, Engelbert Strecken and Abraham von Werth, 1700. 8°. With double-page engraved frontispiece, 1 letterpress folding table and 16 engraved plates. Blue paper covered boards. € 1950

Second edition of an illustrated work on fortification, artillery and fireworks, written by Johann Sebastian Gruber. The work is divided into two parts. The first part mainly deals with military architecture and fortification, with engraved plates showing several ground plans of fortress cities. Each chapter covers a different aspect: the walls, the roads, or how to take a fortress. The second part covers artillery and fireworks, also with several engraved plates. The double-page frontispiece shows a fortress under siege, with an explosion, fire, and canons.

With a library stamp on title-page. Some foxing throughout (including frontispiece and plates) and some paper loss in margin of the frontispiece, not affecting the illustration. Binding rubbed along the extremities with weak hinges. A good copy.

[6], 290, [2 blank], [6]; [2], 316, [2 blank], [7], [1 blank] pp. Jähns 1395 & 1230 (first ed.); Jordan 1519 (lists 6 copies); Marini 187; Guarnieri 57. > More on our website





A forerunner of the pressure cooker and steam engine

24. HAAN, Andreas Leopold. Proeven met de Papiniaansche pot. Waardoor aangetoond wordt dat, door dezelve, de plantgewassen, dieren en mineralen niet alleen, binnen weinig uuren , door een eenvoudig scheivogt ontbonden, maar ook de zuiverste extracten en wezenlyke zoutten bereidt konnen worden. Uit het Latyn vertaald door een liefhebber der scheikunde. En met een aanpryzend bericht voorzien door Boudewyn Tieboel.

Amsterdam, M. Schalekamp, 1775. 8°. With a full-page engraving of the "papiaanse pot". Original grey wrappers. € 700

Rare first and only edition of the Dutch translation of a treatise on the so-called Papinian pot (Papinscher Topf), a device for extracting the essential material from all kinds of pharmacological simples from the three domains of nature: animals, plants and metals. The device was developed by Denis Papin (1647–1712), a French physicist, mathematician and invertor, best known for this pioneering invention of the steam digestor, a forerunner of the pressure cooker that also contributed the cylinder and piston to the gradual development of the modern steam engine. The original Latin treatise Libellus, in quo demonstratur quod non solum vegetabilia, animalia, et mineralia menstruo simplici paucis horis possint solvi, verum etiam extracta purissima, et salia essentialia educi (Vienna, Joannes Thomas Trattner, 1766) was written by Andreas Leopold Haan, municipal physician at Graz. The translator, Boudewyn Tieboel (1738–1814) was a pharmacist at Franeker and since 1758 at Leeuwarden, who added a summary of his own experiments.

Spine damaged. Untrimmed. Otherwise in good condition.

XVIII, 60 pp. Bolton 50;, Blake 191; Neu 1797; STCN (5 copies); Wellcome III, p. 187; not in Bierens de Haan; Waller. > More on our website

18th-century manuscript map of part of the Lek River

25. HATTUM, Dirk van. Kaarte en aftekening van het rivier vak beneeden het Tienhovense Veer met de aanleggende krib, en rijswerken.

[Netherlands], August 1792. Manuscript map in pen, ink and colour washes on paper (52.5 × 73.5 cm), with a compass rose (north below right), the names of the regions, and a scale (ca. 1:2000) below left. € 1950

Large manuscript map of part of the Lek River, near the village of Tienhoven in Zuid-Holland. The map was surveyed and drawn by Dirk van Hattum, the official surveyor of the water board of the Lekdijk Benedendams. In his map Van Hattum suggests the construction of a hydraulic works to improve the navigability of part of the river and simultaneously protect an elementary river groyne downstream. Besides the extent, nature and ownership of the lands, including the remains of former floodgates, much attention is given to the location, structure and improvement of the levee. With some small tears along old folds and along the edges, and some minor soiling, but still generally in good condition.



More on our website



Popular handbook of recreational science, with 65 handcoloured plates, including pyrotechnic experiments and a card trick

26. HOOPER, William. Rational recreations, ...

London, L. Davis, J. Robson, B. Law, G. Robinson, 1782–1783. 4 volumes. 8°. With numerous illustrations on 65 folding plates engraved by J. Lodge, all coloured by a contemporary hand, and woodcut diagrams and other illustrations in text. Contemporary half calf, marbled sides, re-backed in modern calf. € 2500

Second edition of a popular recreational science handbook written by William Hooper (1770–1810). The first edition appeared in 1774. It is chiefly a compilation of works from writers on recreational science. While the book is intended to be scientific and educational, it is also clearly designed as a manual for a magician or someone who wishes to put on public science demonstrations, noting what one should hide from the audience and what one should let them see. It explains and illustrates the principles of mathematics and science through a series of mathematical, mechanical, optical, electrical, magnetic, pneumatic, hydrological and pyrotechnic experiments, including some performed with cards. The information in the section devoted to pyrotechnics stems mainly from Guyot and includes a description of his method of imitating artificial fireworks. The plates in this section show artificial lightning, among other things. Other plates show a carriage that goes without any external force, an air chronometer, a portable camera obscura, a magical dial and theatre, an organ, the refraction of light, optical appearances, an air gun and a thermometer.

With the sewing of volume 3 broken and one quire nearly detached; each volume with engraved bookplate of the 1790 Worcester Library (printed in red) on the pastedown and later embossed stamps of Worcester Public Library on the plates and some text pages; offsetting of colours to adjacent plates; some foxing; a few plates with tears restored (especially plate IV in volume I, whose upper corner is also torn off, without loss to the printed image). Popular work on recreational science containing many experiments and tricks for public demonstrations or magic shows.

Hall, Bibliogr. of books on conjuring 180−4; Hall, Old conjuring books, p.118, 155; Mottelay, p. 241; Philip H110.2−5; Wheeler Gift 508. ► More on our website



Scientific history of the world

27. HORNIUS, Georgius (Georg HORN). Arca mosis sive historia mundi.

Leiden & Rotterdam, ex officina Hackiana, 1668. 12°. With an engraved frontispiece (dated 1669), a woodcut printer's device and some initials. Contemporary sheepskin.

€ 650

Original and only edition of this curious work which can be considered as a partly historical, and partly scientific 'history of the world', including all kinds of arguments concerning chemistry, physics, anatomy and even alchemy. Hornius felt the need for philological criticism to back up what he saw to be 'integral history', and was fully involved both in Reformation's attack on Scholasticism and in the rebirth of literature and the emergence of philology. 'I have not come across any book more curious, less known and scarcer ... the *Arca Mosis* is one of the most original books which I have ever met with' (Ferguson, *Bibl. notes on histories of inventions and books of secrets*).

Hornius, following a third road between Aristotelism and mechanism as represented by Comenius c.s., treated universal history in a modern manner, no longer divided into the history of the four classical empires (Assyria, Persia, Macedon, Rome) but based on the concept of national history, including the history of the peoples of the New World (*De originibus Americanis*). He was also one of the earliest historiographers to divide world history into three major epochs, antiquity from earliest times until the Migration period, the middle period from the Migration period to the year 1500, and modern history from 1500 to his own day. Head of the spine a little loose, boards a bit shaved, otherwise in good condition.

[36], 220, [2] pp. ADB, 13, pp. 137–138; Ferguson, I, 417; Ferguson, Bibl. Notes on histories of inventions and books of secrets, II, Suppl. 3, pp. 49–50 (nrs. 79–80); Graesse, III, col. 371; NNBW, VIII, cols. 848–849; not in Hoogendoorn. More on our website

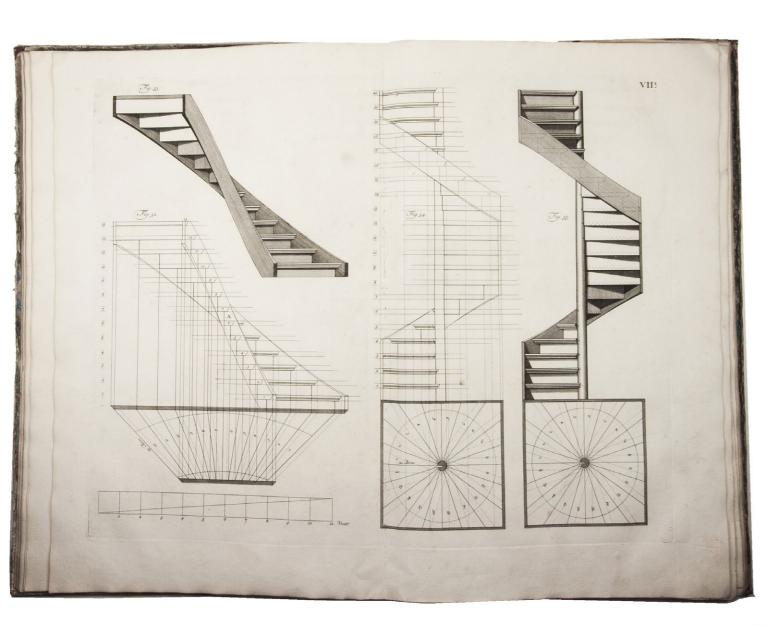
Construction drawings for staircases, skylights and their decoration, with the rare text-volume

28. HORST, Tieleman van der. Theatrum machinarum universale; of nieuwe algemeene bouwkunde, waar in ... werd voorgestelt en geleerdt het maaken van veelerley soorten van trappen.

Amsterdam, Petrus Schenk, 1739. With engraved half-title, engraved title-page (with engraved device), engraved dedication and 30 double-page engraved plates by Jan Schenk.

With: (2) HORST, Tieleman van der. Theatrum machinarum universale; of nieuwe algemeene bouw-kunde; ...

Amsterdam, Petrus Schenk, 1739. With woodcut vignette on title-page. 2 volumes: Folio (plates) and 4° (text). Contemporary red half roan. € 1500



First edition of a classic set of architectural construction drawings in 30 large double-page plates primarily showing staircases and their decoration, but with the last five plates covering skylights intended for stairwells, some in the form of elaborate cupolas. With the rare text-volume, providing explanation to the illustrations in the plates-volume. The plates show straight, spiral and more complicated staircases, with their geometrical constructions, as well as many elaborate decorative forms for the posts, railings, skylights, etc.

The leaves of the plates-volume are watermarked: Strasburg bend above VDL = VAN DER LEY, identical to Churchill 433 dated 1724, and differing from the watermarks described in BAL (Strasburg bend above VDL = IV). An undated second edition was published in Amsterdam ca. 1810 by Jan Steven van Esveldt-Holtrop.

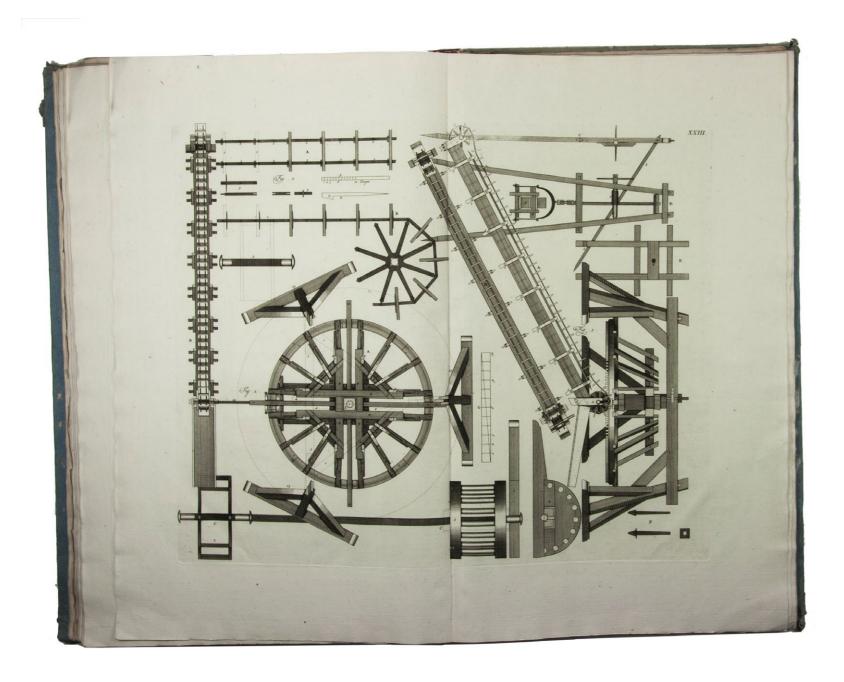
The text-volume has the large bookplate of W.A. van der Hidde. Text with a few marginal stains, binding rubbed. Plates with a few minor stains, mostly on first five leaves and the binding heavily rubbed. Internally still a very good copy of Horst's famous staircase book, with the rare text-volume.

[3], [60] II.; [8], 72 pp. Ad 1: BAL 3929; Berlin Kat. 2253; STCN (9 copies); not in Fowler; ad 2: STCN (6 copies). More on our website

Fine copy of splendid hydraulic engineering drawings

29. HORST, Tileman van der and Jacob POLLEY. Theatrum machinarum universale; of keurige verzameling van verscheide grote en zeer fraaie waterwerken, schutsluizen, waterkeringen, ophaal – en draaibruggen.

Amsterdam, Petrus Schenk [II] & son (vol. II: Petrus Schenk [III]), 1757–1774. Imperial 2° (50 × 34 cm). With a double-page engraved dedication plate and 4I double-page and 7 larger folding engraved illustration plates. Red half sheepskin (ca. 1800). € 3250



Second edition of both volumes of a remarkably detailed set of scale construction drawings (plans, sections, elevations, perspective views, etc., including many detail drawings of individual parts) of 18th-century Dutch waterworks, with the accompanying letterpress descriptions and notes. It includes locks, sluices, bridges, pumps, pile drivers, an ice-breaker, an elaborate water-bailing mill and more. Most of the plates measure about 45×54 cm, with the folding ones about 52×76 cm. At least most of the plates depict existing works, and the text occasionally gives some historical information. The drawings are so detailed and give such a clear picture of how the mechanisms functioned that one could use them to reconstruct the works shown.

A fine copy, nearly untrimmed, with only some false folds in the half-title and an occasional minor defect in the paper. Plate 23 in volume 1 has no number, but it may have been trimmed off at the head. The inside front hinge has partly separated from the book-block, but the binding is otherwise good. A fine copy of a magnificent display of Dutch hydraulic engineering.

[3], [1 blank], 14; [1], [1 blank], 9 pp. + plates. Bierens de Haan [3818.5] & [4839.5] (vol. II only, with later ed. of vol. I); STCN (2 & 4 copies of the 2 volumes); not in Berlin Kat.; Roberts & Trent, Bibl. Mechanica. More on our website

Very rare 17th-century treatise on artillery

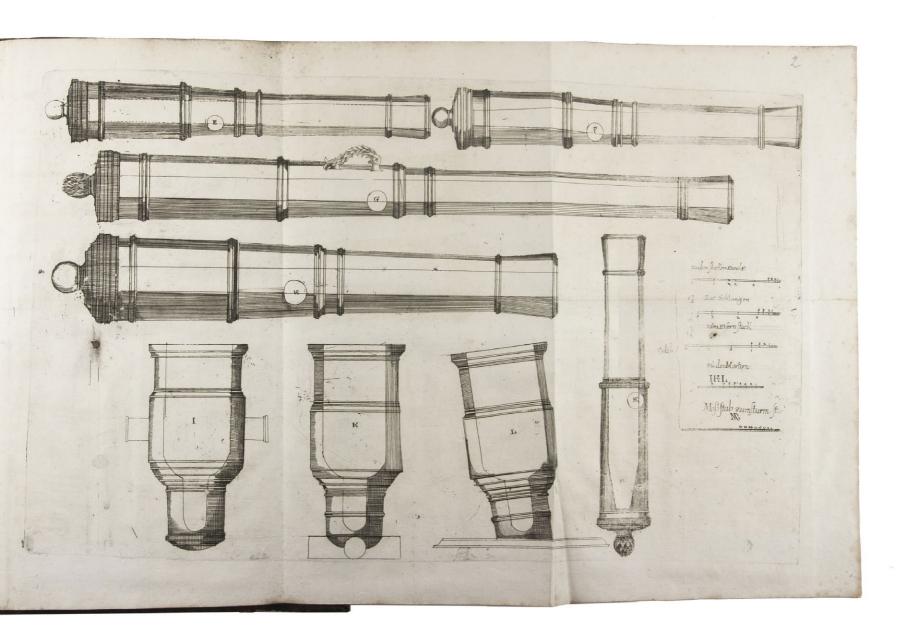
30. KÄSTNER, Sigmund. Vestibulum pyroboliae, das ist kurtzgefaste Anleitung zur Artillerie-Kunst, darinnen den anfahende Liebhabern, mit einer leicht begreifflicher Methode, was wegen der Proportion und dem Gebrauch der Geschützen zu wissen, vorgetragen ist.

Frankfurt am Main, Egidius Vogel for Daniel Paulli, 1679. Small 2°. With 2 engraved folding plates, 3 woodcut plates (1 folding) and 16 woodcut illustrations in text. Contemporary blind-tooled mottled calf. € 3500

Very rare second edition of an illustrated introduction to several types of artillery, giving technical descriptions of the use and dimensions of each type. The illustrations show geometric diagrams as well as different types of cannons and mortars and the text is mainly based on the works of Wallhausen and Furtenbach.

Somewhat browned, otherwise in very good condition. Binding worn along the extremities and damaged at the foot of the spine.

[4], 59, [1 blank] pp. Jähns, p. 1208; VD17 14:687522G (1 copy); WorldCat (same copy); cf. Sloos, Warfare 07021. 🔛 More on our website





VOORSTELLING

DIERLIJK MAGNETISMUS

GENEES MIDDEL,

CARL ALEXANDER FERDIN. KLUGE.

Doctor in de Geneeskunde en Eensten Heelmeester by de Koninkl. Pruisisch genees-heelkundige Leenschool.

Uit het hoogduitsch, met eenige byvoegselen

E. MAASKAMP.

STEEDAM.

F. VAN DER BREGGEN Cornz. Med. Doct. te Amsterdam?



Te AMSTERDAM, Bij

E. MAASKAMP Plaats Napoleon N.1.
1812.

Best-seller responsible for the spreading of the ideas on magnetism in Germany & the Netherlands

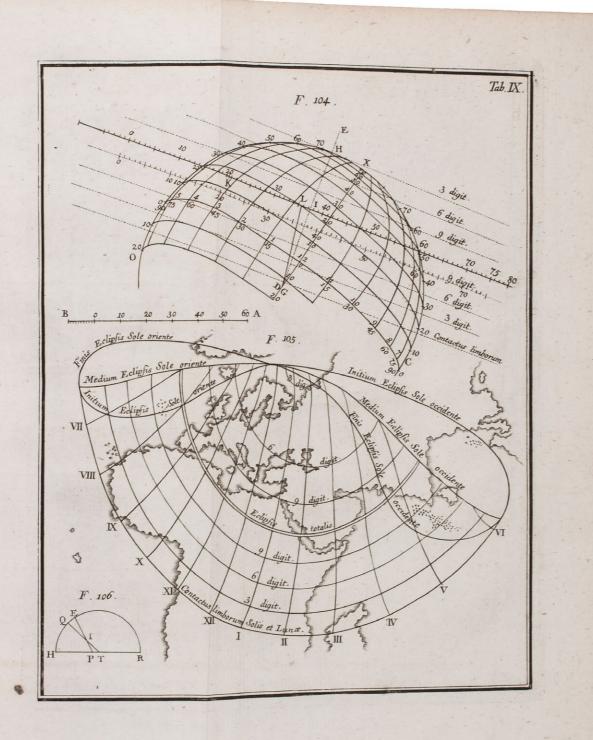
31. KLUGE, Carl Alexander Ferdinant (F. VAN DER BREGGEN, transl.). Proeve eener voorstelling van het dierlijk magnetismus als geneesmiddel. Uit het Hoogduitsch met eenige bijvoegselen door F. van der Breggen.

Amsterdam, Evert Maaskamp, 1812. 8°. With an engraved title-page including an allegorical scene engraved by W. van Senus showing Asklepios and Hypnos chasing Death away from a sick man. Modern half vellum, marbled sides, new endpapers. € 950

First edition of the Dutch translation of Kluge's important work *Versuch einer Darstellung des animalischen Magnetismus als Heilmittel* (1811), which the Dutch expert in the field, Joost Vijselaar, calls Kluge's magnum opus. It gives a complete and systematic overview of the science at that time. Kluge treats the history of animal magnetism and gives a detailed overview of the life of Franz Mesmer, together with descriptions of all aspects of magnetism, ordered in six grades.

With a library stamp of P.F. Dubois on the half-title. Index at the end of the book (pp. 1–50) with some bolts unopened. In very good condition.

[4], 551, 50 pp. ADB, 16 (1882), pp. 250–251; BMN, I, p. 153; Bulletin des sciences médicales, 7 (1828), p. 267; DSB, IV, p. 560; Joost Vijselaar, De magnetiche geest. Het dierlijk magnetism 1770–1830 (Nijmegen 2001), pp. 220–221, 359–360. More on our website



Popular school book on astronomy

32. LACAILLE, Nicolas Louis de. Lectiones elementares astronomiae, geometriae, et physicae, ex editione Parisina anni 1755 in Latinum traductae a C.S(chefer) e S.J. *Including:* Appendix, complectens Praecipuas Mutationes, quas Auctor in Ultima Editione Parisina anno 1761 fecit, et in Latinum convertit C.S(chefer) e S.J.

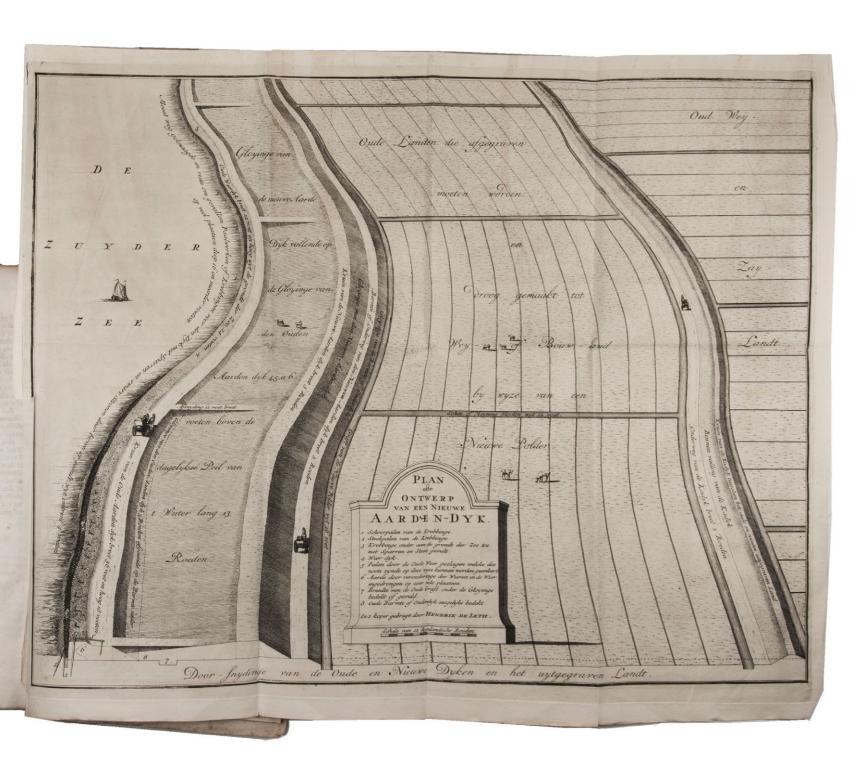
Vienna, Prague, Johann Thomas Trattner, 1757–1762. 2 parts in 1 volume. 4°. With woodcut vignette on 2 title-pages, 10 folding engraved plates in text. Contemporary vellum. € 1950

First Latin edition of a popular school book on astronomy, geometry and natural science, translated from the second French edition published at Paris in 1755, together with an *Appendix*, containing a Latin translation of the corrections and additions of the latest Paris edition of 1761.

Nicolas Louis de La Caille (1713–1762), was a famous French astronomer and mathematician, professor at the College Mazarin. The present work, first published at Paris in 1741, contains his lectures to pupils at the College, used in Schefer's Latin translation by the Latin Schools in Vienna and Prague. It covers applied mathematics, cosmography, map making, horology, perspective, surveying, etc. With 10 folding engraved plates with arithmetical exercises and tables in text and geometrical and perspectival figures and illustrations.

With old owner's inscription on first endpaper; spine chipped at the upper corner. Very good large-paper copy.

[10], 280, [6]; 75, [1 blank] pp. Honeyman 1867; Houzeau-Lancaster 9254; Poggendorff I, 1337; not in De Backer & Sommervogel; for Lacaille: DSB I, pp. 542–545. More on our website



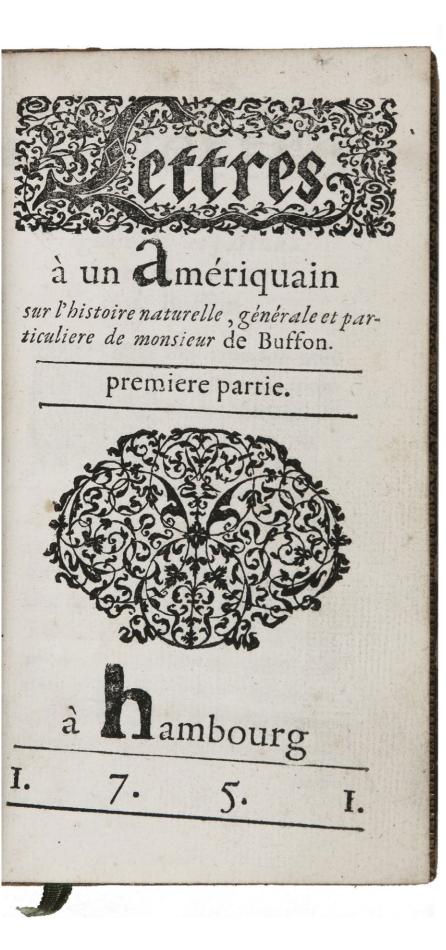
Proposal for reinforcing the dykes of West-Friesland

33. LAKENMAN, Seger. Ontwerp van een onkostbaar en zeker middel, om de Westvriesche zeedyken... te stellen buiten eenig gevaar van doorbrake...

Amsterdam, heirs of Johannes Ratelband and company and Hendrik de Leth, 1733. Folio. With 2 folding engraved plates, including a map of North-Holland. Contemporary marbled paper wrappers, preserved in a blue cloth chemise. € 1875

First and only edition of a brief treatise by Seger Lakenman on reinforcing the dikes of West-Friesland, now the northern part of the province of North Holland in the Netherlands. The dikes were dangerously weakened because "sea worms" were voraciously eating their wooden piles. In 1732 the States of Holland and West-Friesland proclaimed a contest for a better type of dike. Lakenman responded with the present work, suggesting, among other things, the construction of a new inner dike, a so-called "inlaagdijk", and also including the estimated costs. His proposal, however, was rejected by the States. On the title-page Lakenveld is mentioned as the secretary of "Drechterland", a small community in the Dutch province of North Holland. Some marginal thumbing, a few small stains, and the plates very slightly browned, but otherwise in good condition, with the edges wholly untrimmed. Edges of the marbled paper wrappers slightly frayed, but otherwise good.

[4], 23, [1] pp. *V.d. Aa XI, pp. 40–41; STCN 184404789.* More on our website



Mid-18th century scientific correspondence

34. [LIGNAC, Joseph Adrien Le Large de]. Lettres à un Amériquain sur l'histoire naturelle, générale et particuliere de monsieur de Buffon.

"Hambourg" [Paris?], 1751–1756. 9 volumes. 12°. With woodcut initials, ornaments and decorative lettering. Contemporary uniform mottled calf, gold-tooled spines. € 1750

First edition of Lignac's wide-ranging scientific correspondence: letters to an anonymous (fictitious?) American. "Regardé comme le plus savant des écrits de l'auteur; (il) comprend dix lettres sur les principes hypothétiques de Buffon, la construction et la cause du mouvement des planètes, la construction de la surface de la Terre, l'origine des coquillages fossiles, l'idée de la construction animale, l'histoire naturelle de l'homme, la méthaphysique de Buffon, les observations faites par Needham, etc." (NBG). The typography of the first five volumes is eccentric, with the word 'Lettres' on the title-page in a woodcut textura with the L integrated into the decorative frame around the whole word, and large lowercase initials and headings. Binding with some minor flaws. A good set of this very rare work.

[2], 127, [1], 50; [2], 66, [2], 66, [2]; [2], 31, [1], 96, 69, [1]; [2], 78, [2], 92; [2], 185, [1]; 238, [2]; [2], 238, [2]; [2], 258, [2]; [2], 276, [2] pp. Barbier II, col. 1222; Cobres, p. 210; Sabin 41054; for the author: NBG XXXI, col. 199. >> More on our website

Extensively illustrated do-it-yourself guide to plane and solid geometry

35. MALCONETI, Jacobi. Selbst-lehrende Geometrie, oder neue und kurtze institutiones mechanicae, stereometriae, et geodaesiae.

Frankfurt am Main, Johan Adolph & Philipp Wilhelm Stock, 1700. 4°. With engraved frontispiece by Joseph a Montalegre, title-page in red and black with woodcut publisher's device, with 1 engraved illustration plate, 24 woodcut plates containing 26 illustrations (on folding leaves, full-page leaves and smaller slips) and about 275 woodcut illustrations in the text. Contemporary sheepskin parchment. € 2750

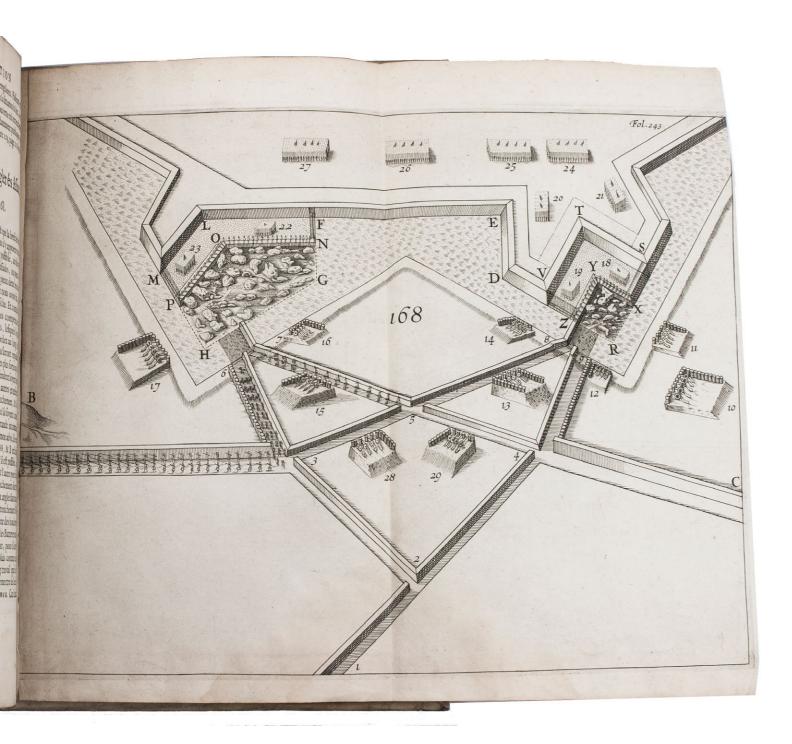
First and only edition of a German do-it-yourself guide to plane and solid geometry by Malconeti, who is known only for the present work. It is divided into 8 parts (7 books and an appendix with assignments) and focuses mostly on practical examples. Book 1 covers geometrical terminology, starting with the very basics, like the definition of geometry and the different figures; book 2 proportions between different quantities; the comprehensive book 3 measurement of lines, with information on the instruments, methods and units; book 4 comparison and measurement of lines as parts of figures; book 5 geodesics; book 6 several algorithms for all kinds of craftsmen; and the comprehensive book 7 the measurement of the volumes of different bodies.

Some slight foxing, a small stain on the frontispiece and title-page, a small marginal tear repaired in the frontispiece, and a small marginal hole in 1 leaf. In very good condition.

[4], 490, [2] pp. VD 17, 23:243295V; WorldCat (3 copies). > More on our website



Richly illustrated guide to geometry and fortification, with numerous woodcut illustrations and 18 folding engraved plates



36. MAROLOIS, Samuel. Oeuvres mathematicques. *Comprising:*

- Geometrie contenant la theorie et practique d'icelle, necessaire à la fortification, ...
- Fortification ou architecture militaire, tant offensive que deffensive: ...

Amsterdam, Guillaume Jansson Caesius [= Willem Jansz Blaeu], 1628. 2 parts in 1 volume. 4°. With 18 folding engraved plates, 1 engraved illustration in text, numerous woodcut illustrations and geometric figures in text, and some woodcut initials. Contemporary vellum, recased, with new endpapers. € 2250

First edition of a work combining two of the best known works of Samuel Marolois (1572–1627): one on geometry and the other on fortification. Marolois was a well-known Dutch engineer and mathematician. His *Geometria* presents a thorough pictorial course of all aspects of geometry and its application to measurement, proportion, surveying, perspective, etc. It treats specifically the application of geometry to architecture and fortification. His *Fortification ou architecture militaire*, is richly illustrated and an important source for the Dutch art of fortification at the beginning of the 17th century. The woodcut illustrations in the text show many corners of fortresses with measurements of their angles and various calculations, but also some ground plans and tools for constructing a fortress. The engraved plates show complete ground plans of fortresses; the last plate depicts different types of cannons.

[8], 219, [1 blank]; 248, [2] pp. Jordan 2389; STCN 082523983 (2 copies); this work not in Jähns; Sloos, Warfare. > More on our website

If all the gunpowder in the world were put in a globe of glass or paper and set on fire all at once, what would happen?

38. MYDORGE, Claude. Examen du livre des recreations mathematiques.

Rouen, Charles Osmont, 1643, 8°. With numerous woodcut illustrations illustrating the problems. Contemporary limp vellum. € 1400

Very rare fourth edition of the commentary of Claude Mydorge (1585–1647) on the *Récreations mathématiques* by "H. van Etten" (Jean Leurechon). Mydorge corrected the numerous mistakes made by Leurechon in these mathematical diversions and "added several physical experiments... as well as comments that he claimed were intended only for his friends". Several of examples and comments by Mydorge, also appear in the works of his friend Descartes, making it "reasonable to conclude that many of the other mechanical problems discussed by Mydorge in this work were also known to Descartes... and one can easily imagine Descartes as one of the friends participating in the discussions of these problems alluded to in the prefatory remarks" (Hattab).

The "diversions" consist of numerous problems for which a mathematical solution is presented, most of them illustrated by a woodcut. For instance, Mydorge (following Leurechon) informs the reader how to make water in a glass boil without fire, "to make a door open from both sides; ... to build a bridge all round the earth which will not fall when its supports are removed; to keep all the water in the world in the air without a single drop falling to earth". The third chapter, on fireworks, contains even more spectacular problems, such as "if all the gunpowder in the world were put in a globe of glass or paper and set on fire all at once, what would happen? Nothing, since the pressure would be equal in every direction" (Thorndike).

Binding soiled and spine with a few holes; lower part loose in binding. First 50 pages creased; several marks and thumbing throughout. A fair, probably well-used copy.

[I], [I blank], [5], [I blank], [7], [I blank], 280, 63, [I blank], [I], [I blank], [2], 67–106, [43], [I blank] pp. Worldcat (I copy); for Mydorge: DSB IX, pp. 598–599; Hattab, Descartes on forms and mechanisms, pp. 90–92; Thorndike VII, pp. 593–594.

More on our website

102 Troisième part. des Recreat. Math.

Comme l'on peut tirer droitement vne fuzée Orizentalement, ou autrement.

CHAP. XV.



Cey est propre à vne gageure: Il faut auoir composition de suzée bien asseurée, selon le poids & grosseur que vous luy voulez donner, afin de ne faillir en vostre entreprise. Disposez vostredite suzee, môtée auec sa baguette bié proprement, sur vne planche polie, & qui puisse aller en basculant & tournant à vostre volonté. Ainsi que

VOUS



"One of the most frequently reprinted works of medical pharmacy"

39. MYNSICHT, Adrian von. Thesaurus et armamentarium medico-chymicum. Venice, Johann Gabriel Hertz, 1707. 4 parts in 1 volume. 8°. With engraved titlepage. Contemporary limp sheepskin parchment. € 750

Third Venice edition of a medical work by the German alchemist Adrian von Mynsicht (1603–1638). "One of the most frequently reprinted works of medical pharmacy was the *Thesaurus* of Adrian Mynsicht (1603–1638), an M.D. of Helmstedt who became physician to the duke of Mecklenburg and others ... It purported to reveal to the "sons of doctrine and wisdom" a most secret way of compounding drugs based on his own experience and practice" (Thorndike). He was a follower of Paracelsus, opposing the Galenic theory in believing that illnesses were caused by chemical processes instead of fluctuation of the humours. Von Mynsincht was the first to describe emetic tartar. At the end of the text is a small treatise concerning the philosopher's stone. The work is followed by three smaller works by Carolus Musitanus, Andreas Battimelli and Hieronymus Piperus, who wrote additions to Mynsicht's *Thesaurus*.

With a faint stamp on title-page, and a frequently appearing faint library stamp on pages throughout the book. Browned and foxed throughout, with frequent water stains and some occasional spots. Overall a good copy.

[8], 446 [=452], [52]; 162 [=168] pp. Blake, p. 318; Thorndike, pp. 84–86. 🔛 More on our website

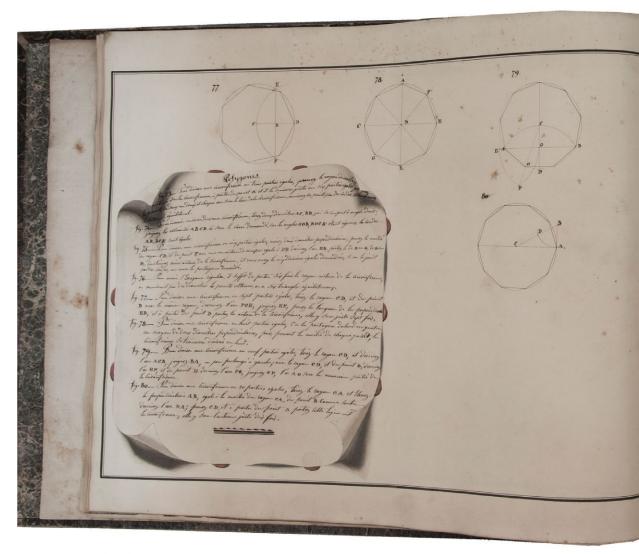
Extensively illustrated manuscript course of practical geometry with more than 350 figures, including perspective, projections, architecture, cartography & sundials

40. PRÉVOST, M. Cours de géométrie pratique professé par M. Prevost et suivi par C.F. Frenet. Comprenant 10. La géométrie élémentaire avec ses applications au toisé, au cubage, géodésie, etc. 20. La géométrie descriptive avec ses applications à la perspective, à la coupe des pierres etc. [Lyon?, ca. 1825?]. Oblong 2° (35 × 45 cm). With a flourished calligraphic title-page signed "[Charles] Esclozas scripsit", and 140 leaves with more than 350 figures in black ink and sometimes pencil, red ink or coloured washes (blue, yellow, red, green and grey), and with text and illustrations in black thick-thin borders. Contemporary green half morocco, spine richly gold-tooled. € 25 000

Complete and thoroughly illustrated course of practical plane and solid geometry (including conic and other sections), with applications to projections, perspective, surveying, bridges, architecture and stone masonry, cartography, geodesy and globes, sundials, etc. The title suggests it was a series of lectures by "M. Prevost" (it is not clear whether "M" is an initial or merely means "monsieur"), followed by C.F. Frenet, who apparently wrote up Prévost's lectures and drew the finely executed illustrations. The texts are mostly captions to the figures in the illustrations and are usually keyed to them with numbers. The title-page divides the text into two numbered parts. The extent of the course suggests it continued for more than one year. Frenet probably set down Prévost's words and sketched his illustrations during the lectures, but made the present fair copies of both at home afterward. The ninth plate includes the captions of figures 73 to 80 in a *trompe l'oeil* drawing of a piece of paper as if it were attached with sealing wax and had its corners curling up.

We have not been able to identify Prévost or Frenet, but the calligrapher who executed the title-page was almost certainly Charles Esclozas/Esclosas (ca. 1796–1839), who worked in his native Lyon from 1823 to his death, so the manuscript probably originated in or near Lyon.

A few leaves are bound out of order. The ink of the flourishes at the head of the title-page has eaten through the paper, and in a couple illustration leaves the paper has torn along a border line (in one case with loss of the fore-edge margin). The title-page and last leaf are creased and a few leaves show browning or foxing, but most leaves remain in very good condition. The binding is rubbed and the hinges worn, but the tooling on the spine remains clear. A manuscript course of practical geometry with finely executed illustrations, perhaps prepared for publication but never published.



[1], [1 blank], [97], [1 blank] pp. plus 140 illustration ll. partly numbered in 13 series. > More on our website

18. ift er vom Morgen gegen Abend / nur umb ein wenige Mittagwerte fich neigend/sortgangen/ und hat des Tages 4. Brad 12. Minuten vollbracht: Aber nun seit dem 18. Decemb. in 4. Tagen und 18. Stunden hat er sich von feinem damaligen Grande swischen dem Salfe des Sahns und Ructen Des großen hundes erhaben/und feinen lauff vom Mittage gegen Rordweffen gewender : da ift er durch den großen Dund / ferner durch den Dafent aledann unter dem lincken gufe Orionis vorben bif in den Eridanum gefrichen: er ift im Safen an den Dri tommen/wo der Comet Anno 1 6 7 2. am erften geffanden. Gein eigentlicher lauffinnerhalb ; Zagen weniger 6. Gundenjift 50. Grad/ tommt alfo faft auff einen Zag 10. Grad : wie es dem wol das Anfehen gab / daß er faft fo gefchwinde/als der Monde lieff. Daraus fan man abnehmen/baffer fich etliche hundert taufend Meilen weit von feiner vorigen Sohe gegen des Monden Revier herab gefencket babe : und wenn der Mond den Schein des Cometen nicht hatte verhindert, wurde er fehr erfchrecklich / ja als ein Schwefel brennender Fenerflumpen ausgefehen haben. Es wird gemuchmaffet/ daß feines ungleichen Lauffs Urfache fen / daß er fich immer naber gegen die Erde berab gegeben : wiewol auch etwas Urfache fenn tonte/daß wir die lineam feines lauffs von der Erden nicht im rechten/fondern im schlimen 2Binckel anschamen: wie dannenhero auch die Planeten und duncken bald langfamer/bald geschwinder ju gehen. 21m 18. Decemb. hat er am hochsten/nemlich auff der Mittagseis nie/14 Grad über dem Horizont gestanden : Dismahl stund er 32. Grad dafelbft über dem Horizonte, sub Elev. 11. Grad. Wenn man feinen lauffreferiret auff den Zodiacum, fo hat er/ biefe g. Tage weniger feche Seunden/60 Brad vorüber passiret/benn er tam damals in den 27. Grad des Stiers. Runmehr wird er ferner über den Aquatorem lauffen gegen dem haupte des Wallfisches. Seines tauffs Enderung wil ich platice in diesen Einien vorbitden:

* Stand den 18. Dec. 3. Grad

The comet of 1664

41. RICHTERN, Christophorus. Berichtendes Send-Schreiben vom Cometen, so in Christmonat des 1664. Christen-Jahres ist erschienen: darinnen derselbige Astronomicè, Physicè, Astrologicè, Theologicè, betrachtet und erkläret wirt.

Leipzig, Ritzsch, 1665. 4°. With a woodcut of a comet on the title-page. Modern boards. € 1500

Original edition of this rare pamphlet in which the comet of 1664 is described. The year '1664' is also consealed in a chronogram on the title: "Anno, quo Seraph CVM gLaDIo VIbrante tIbI astat".

All the astronomical, theological and astrological implications of the appearance of the comet are discussed at great length by Christophorus Richtern, a protestant minister in Gnandstein in Meisssen. The text is dated 27 December 1664.

Good copy of this very rare pamphlet, some browning.

(12) ll. Brüning, Bibl. D. Kometenlitt. (Stuttgart 2000), 1220; Serlin, p.160–80.

More on our website



Rare edition of Schooten's sinus tables.

42. SCHOOTEN the elder, Frans van. Table des sinus des tangentes et secantes pour le rayon 10000000.

Rouen, David Berthelin et Jacques Lucas, 1672. 12°. With a woodcut frontispiece, numerous tables and geometrical figures in the text. Contemporary calf, red title shield, red sprinkled edges. € 1250

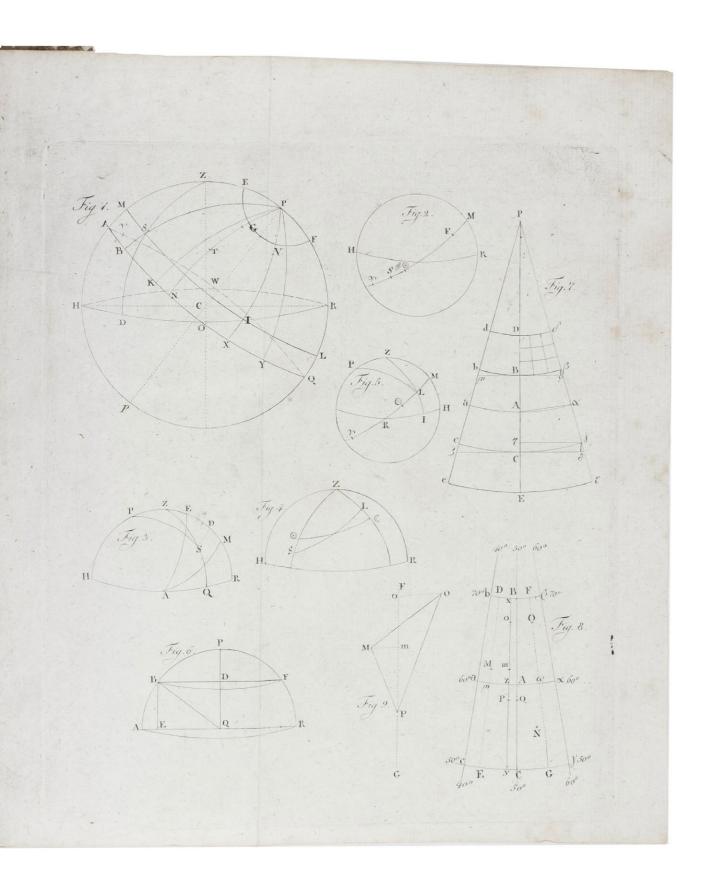
Very rare edition in French of Frans van Schooten the elder's influential mathematical work on triangulation, highly important for the development of cartography in the 17th century, amongst other things. The present edition has only 4 recorded copies in libraries worldwide according to WorldCat and Hoogendoorn's *Bibliography of the exact sciences in the Low Countries*. The frontispiece of the present Rouen edition was copied in woodcut after the engraved frontispiece of the first French edition that was publish by Willem Jansz Blaeu in 1627.

Frans van Schooten the elder (1581–1645) was a professor in the engineering school in Leiden. He made a significant improvement on the tables published by Albert Girard, which were based on a radius of 100,000. Schooten's tables were reprinted (without acknowledgment) by Jan Jansz. Stampioen, a mathematics teacher in The Hague, who had William 11 and the sons of Huygens

Stampioen, a mathematics teacher in The Hague, who had William II and the sons of Huygens among his pupils, in 1632.

Owner's inscription in ink on front paste-down: "Auvé Duabigny". Otherwise in very good condition.

[240] pp. Hoogendoorn, SchootFS02F 4. > More on our website



Astronomical observations printed in St. Petersburg

43. SCHUBERT, Friedrich Theodor. Anleitung zu der astronomischen Bestimmung der Länge und Breite,...

St. Petersburg, Kaiserliche Akademie der Wissenschaften, 1803. 4°. With 2 folding engraved plates depicting 10 figures, and 12 tables in text. Original green boards. € 1500

Second enlarged edition of this treatise on astronomical observations to determine the longitude and latitude, by the astronomer Friedrich Theodor Schubert (1758–1825). In 1785 Schubert was called by the Scientific Academy at St. Petersburg and became an official member of the Academy in 1789. As a member of the Russian embassy to China he travelled together with a.o. Potocki and Klaproth in 1805. Pages 81 and 83 misbound; boards discoloured.; library stamp on title. Good copy.

83, [1 blank] pp. ADB XXXII, pp. 628–631; Houzeau-Lancaster 10558; Poggendorff II, cols. 850–852. More on our website

Lavishly illustrated course in the art of baroque architectural drawing and ornamental design

44. SCHÜBLER, Johann Jakob. Grondige en duydelyke onderwyzing der volkomen kolommen-ordening, zoo als men dezelve in de heedendaagse-boukunst, gewoon is te gebruyken. ...

Including: Het tweede deel van het Grondig onderwys ..., waar in voorgestelt word zes nieuwe geinventeerde portaalen met sierlyke balkons op vrystaande kolommen; ...

Amsterdam, Petrus II Schenk, 1728. 2 volumes bound as I. Folio (33.5 × 20.5 cm).. With 2 title-pages, each with the same large engraved illustration of an Amsterdam patrician's residence, 2 engraved architectural frontispieces, and 34 illustration plates (I−XVII, I−XVII), al engraved after the author's drawings, mostly by Renz and Montalegre (the second frontispiece by Johann Christoph Weigel). Modern maroon half calf. € 2500

Rare first and only Dutch edition, published soon after the first, undated, edition (in German) and printed from its plates, of the first two volumes of a well-illustrated course in architectural decoration and related decorative design by the Nürnberg architect, mathematician and draughtsman Johann Jakob Schübler (1689–1741). The third volume was never published in Dutch, but these two form a richly illustrated concise course in the art of architectural drawing and ornamental design for architects. Besides the columns that form the main part of volume 1 it presents examples of richly ornamental porches, balconies, bay windows, doorways, cabinets, furniture, stoves, carriages, sledges and other architectural ornament, all explained in the accompanying text. At the same time the book presents and illustrates the mathematics of drafting techniques, including perspective drawing. Schüber has been by turns embraced and eschewed for his extravagant baroque fantasy, displayed here especially in the bay windows, stoves and especially the carriages and sledges, reminiscent of those at Schloss Nymphenburg in Munich.

With an occasional minor smudge or spot and a few winkles in the paper, but still in very good condition, the binding fine. A richly ornamental display of late baroque architectural design with instructions for the student.

[6], 16; [4], 22 pp. plus frontispieces and plates. Bierens de Haan 3621–3622; STCN (5 copies); WorldCat (adding 2 more copies); cf. Millard coll. (northern European) 114; not in BAL. > More on our website



Measuring spherical triangles

45. STEENSTRA, Pybo. Verhandeling over de klootsche driehoeks-meeting. Bevattende alle de regelen, die men nodig heeft, om, op de kortste en gemakkelykste wyze, allerlei soort Amsterdam, J.W. Yntema & Comp., 1801. 8°. With numerous woodcut geometrical illustrations in text. Contemporary blue paper wrappers. € 475

Second edition of a manual on spherical trigonometry by the Dutch mathematician Pybo Steenstra (d. 1788). It opens with a preface, followed by the main text, divided into five chapters. The first chapter is an introduction to the geometry of spheroids and spherical trigonometry in particular. The second deals with right-angled spherical triangles and the third with differently angled spherical triangles. The fourth and fifth chapter deals with the finding and composition of formulas. Each chapter contains many definitions, demonstrations and propositions for clarification.

With some faint water stains in the gutter and in the upper margin near the end of the book. Paper wrapper frayed, damaged on the spine. Internally otherwise in good condition, wholly untrimmed and with a few of the bolts unopened.

XVI, 207, [1 blank] pp. Bierens de Haan 4529 note. 🔛 More on our website

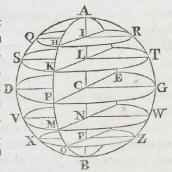
KLOOTSCHE

I. DEFINITIE.

§ 2. Als een halve cirkel (AFB) rondom zyn middellyn (AB) wordt rond bewogen, befchryft dezelve een lichaamelyke figuur, die een Bol, of Spheer, genoemd wordt.

GEVOLG.

§ 3. Hier uit volgt, dat het middelpunt (C) van den halven cirkel, het middelpunt van den Bol is; en dat de omtrek p (AFB) van den halven cirkel, de oppervlakte van den Bol befchryft. Weshalven alle de punten der op-



pervlakte van den Bol van deszelfs middelpunt even verre afftaan; om dat de radiën van den Bol alle aan die van den halven cirkel, en dus ook aan elkander, gelyk zyn.

II. DEFINITIE.

§ 4. Elke regte lyn (als AB, FE, DG enz.) die, door het middelpunt van den Bol gaande, ter wederzyden in de oppervlakte eindigt, wordt een Middellyn van den Bol genoemd. De middellyn als (AB), om welke men de Bol begrypt beweegbaar te zyn, wordt de As van den Bol genoemd: en de beide uiteinden (A en B) van de As, zyn derzelver Poolen. Doch elk der middellynen, aan de As AB gelyk zynde, kan voor As genomen worden.

G E-



An extensively illustrated introduction to sundials

46. STENGEL, Johann Peterson. Gnomonica universalis, sive praxis amplissima geometricè describendi horologia solaria, stabilia quidem juxta omnes species, in quâcunque superficie planâ intra sphaeram rectam & obliquam, tum reflexa, et portatilia, in figuris 233 [= 232].

Ulm, Matthäus Wagner, 1679. 4 parts in 3 volumes. Small 8° (16×9.5 cm). With engraved frontispiece and 105 engraved plates, showing 232 sundials and related mathematical and astronomical figures. 19th-century boards covered with marbled paper, in matching marbled box. $\in 2250$

First edition of the Latin translation of Stengel's extensively illustrated *Gnomonica universalis*, originally published in German in 1675. It gives a detailed introduction to sundials, the measurement of time and other astronomical data, and is divided into four parts, treating the regular and vertical declining dials, reclining dials, horizontal dials, and portable dials respectively. The work proved very popular going through six editions in the original German and six in the present Latin translation.

Some occasional slight browning, minor stain on first half-title, one tiny restoration in the margin, and one plate detached. Binding slightly rubbed. Very good copy, complete with all plates.

[2], 262, [10] pp. De la Lande, p. 293; Houzeau & Lancaster 11525; VD 17, 23241626V (2 copies, incl. 1 incomplete); Zinner, Astron. Instrumente, p. 541. More on our website



First German edition of a classic Dutch work on trigonometry

47. STEVIN, Simon. Kurtzer doch gründlicher Bericht von Calculation der Tabularum Sinuum, Tangentium und Secantium. Sampt deroselben gebrauch in Solvierung oder aufsrechnung aller flachen Triangel.

Nuremberg, Simon Halbmayern, 1628. 2 parts in 1 volume. 12°. With several woodcuts in text. Contemporary boards. € 8500

First German edition of Simon Stevin's (1548–1620) *Van den Driehouck-Handel*, originally published in the *Wisconstige Gedachtenissen* (1605–1608), augmented by the translator, Daniel Schwenter, with axioms on spherical angles by the German mathematician Bartholomeus Pitiscus. The second part consists of tables for sine, tangent and secants by Johann Praetorius. Stevin's writings are respected for their versatility, their ability to combine theory and practice, and the clarity of his argument. Name stamp on endpaper; slightly waterstained; a few wormholes. Good copy, with armorial bookplate.

[24], 154, [10]; [182] pp. Bibl. Belg. V, p. 232; Bierens de Haan 4590; and 4591; cf. Dijksterhuis, pp. 104–105; Poggendorff 878. More on our website

Very rare first edition of a standard illustrated handbook for ships' pilots

48. VRIES, Klaas de. Schat-kamer ofte konst der stier-lieden, ...

Amsterdam, Joannes Loots, 1702. With woodcut illustration of a ship's pilot with a plumb line and navigational instruments by Adriaan Le Duc (1693–1729) on title-page, 4 engraved plates (3 folding and 1 full-page). Further with many woodcut illustrations (mostly diagrams), and letterpress tables of tides and solar and lunar positions.

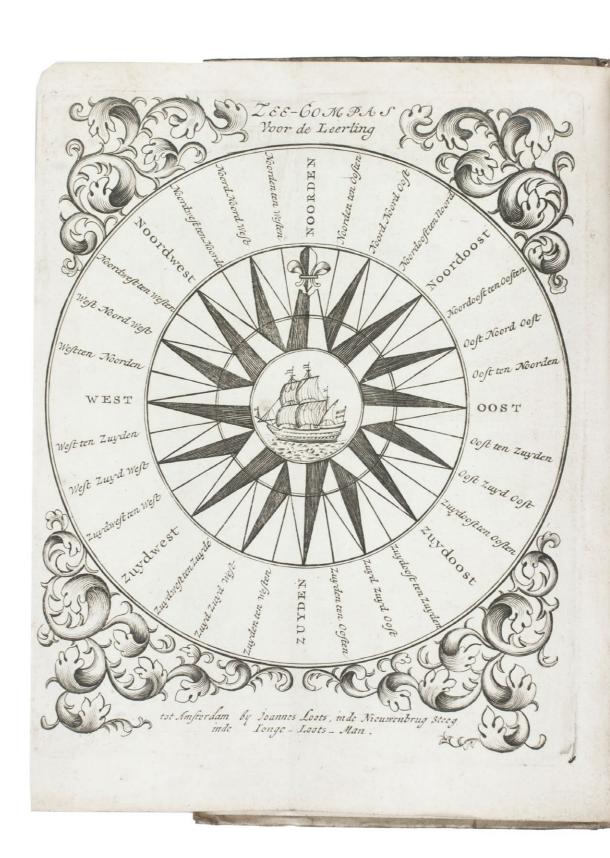
Including: (2) VLACQ, Adriaen. De Tafelen der sinuum, tangentium en secantium, ofte der hoekmaten, raaklynen en snylynen.

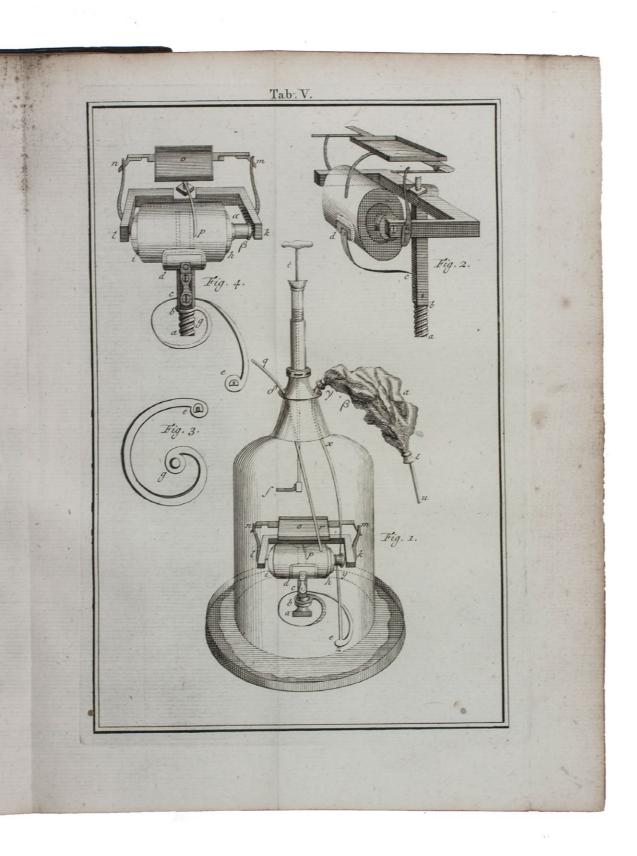
Amsterdam, Joannes Loots, 1702. Primarily with letterpress tables of logarithms and trigonometric functions, the present copy lacking those for logarithms. 2 parts in 1 volume. 8°. Contemporary vellum. € 8500

Very rare first edition of a standard practical manual on the art of navigation, by the virtually unknown Klaas de Vries, teacher of mathematics in Amsterdam. In the preface De Vries summarises the content of the book, which is profusely illustrated (mostly with diagrams) and includes letterpress tables of the tides, the time lag between the positions of the sun and moon for the years 1701–1710, the declination of the sun, etc., as well as 4 engraved plates of a compass rose, the use of the Jakob's staff, the "Platte Paskaart" and the "Wassende graadige paskaart". The work is concluded by sections on the winds one can encounter on the journey from Holland to the Dutch East Indies; how to sail to the East Indies in autumn, during monsoons, etc. Ad 2: The corrected Loots edition of tables of trigonometric functions and logarithms. The note to the reader explicitly states that the tables are based on those published by Adriaen Vlacq in 1665 (Tabulae sinuum ...), but that they have been corrected, in part based on comparisons with the folio editions of Pitiscus for the trigonometric functions and Henry Briggs for the logarithms. The present copy lacks the tables of logarithms, but its collation and signing otherwise agrees with the somewhat irregular ones given in Crone.

Good copy, the *Schat-kamer* complete with the errata leaf. The *Tafelen* lacks the two tables of logarithms (45 leaves, 2AI–MI). Binding somewhat dirty and stained, with the head of the spine chipped and cracked.

[12], 30, [12], [1], 32–272, 271–334, [1], [1 blank]; [3], 44, [1], [12], [90 lacking], [2], [101], [1 blank] pp. Crone Library 373 & 374; cf. Bierens de Haan 5196 (1727 ed.); Cat. NHSM, p. 672 (1713 ed. plus 1707 ed. of Tafelen alone); STCN (1727 ed., plus 1707 ed. of Tafelen alone), WorldCat (1710 ed.). More on our website





Three early works on electrics with 11 engraved plates

49. WINCKLER, Johann Heinrich. Nieuwe natuurkundige ontdekkingen, aangaande de eigenschappen, werkingen, en oorzaaken der electriciteit, of uitlokkings-kragt.

Including:

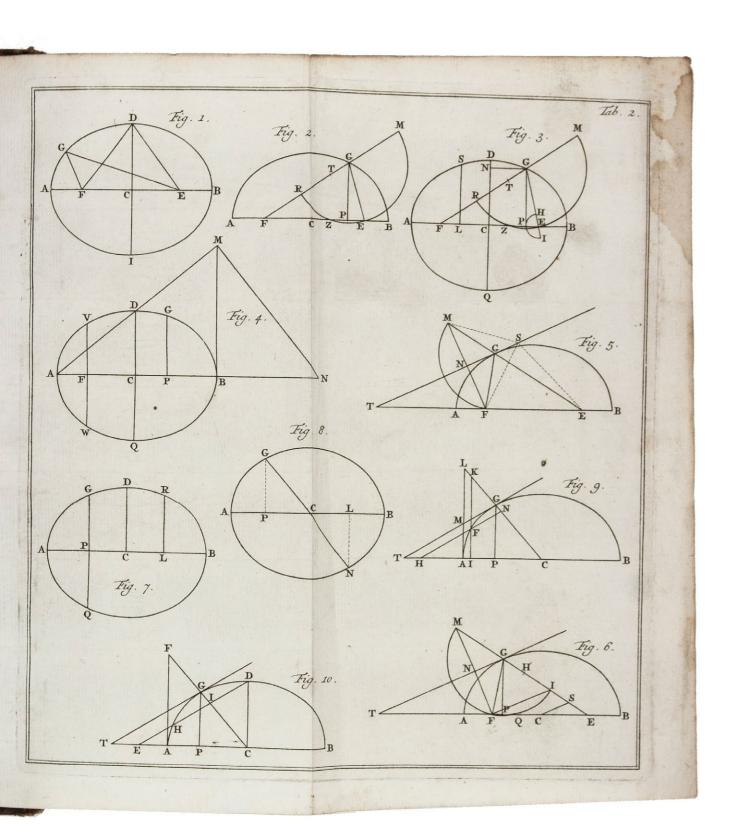
- (2) WINCKLER, Johann Heinrich. De eigenschappen der electrische stoffe, en van het electrische Vuur.
- (3) WAITZ, Jacob Sigismund von. Verhandeling over de electriciteit, en derzelver oorzaken.

Amsterdam, H.W. van Welbergen, 1751. 3 parts in 1 volume. 8°. With 11 engraved folding plates. Contemporary calf, gold-tooled spine. € 1900

Early work on electricity. Johann Winkler (1703–1770) improved the construction of the electric generator by using a leather cushion pad held against the globe by adjustable springs, rather than the palm of the hand, and made a further improvement by having the globe rotated by a cord connected to a foot treadle through an elastic rod, thereby releasing both hands. With these improvements he was able to rotate the globe of his machine as fast as 680 turns per minute and produced much brighter and stronger discharges. He also expanded earlier displays and attempted to determine the speed of the movement of electricity, concluding that no interval of time could be observed. The first part of his book describes the properties and causes of electric phenomena; the second investigates the quality of electric matter and electric fire. The essay by the German mining engineer J.S. von Waitz (1698–1777), who wrote two other essays in Dutch and one in French on the subject, won in 1744 the price at the Berlin Academy for the best dissertation on the subject of electricity.

With library stamp on half-title, ownership's inscriptions on the title-page and dedication, one plate slightly waterstained, and a few wormholes. Binding with slightly rubbed sides. Very good copy.

[16], 119, [1 blank]; [14], 110, [2 blank]; [56], 139, [1] pp. Ad. 1: Cat. Wheeler Gift 313 b; cf: Bierens de Haan 5343 and 5344 (ed. 1745 and 1746); ad 2: cf: Bierens de Haan 5239; Poggendorff 1243. > More on our website



Dutch mathematician Nicolaas Ypey on conic sections, with 50 mathematical figures

50. YPEY, Nicolaas. Grondbeginzelen der kegelsneeden, bevattende de eerste en voornaamste eigenschappen van de parabola, ellips en hyperbola. Ten dienste der leerlingen opgesteld. Amsterdam, Yntema and Tieboel, 1769. 8°. With 7 engraved folding plates, head – and tailpieces built up from cast typographic ornaments. Contemporary half calf, sprinkled-paper sides. € 1250

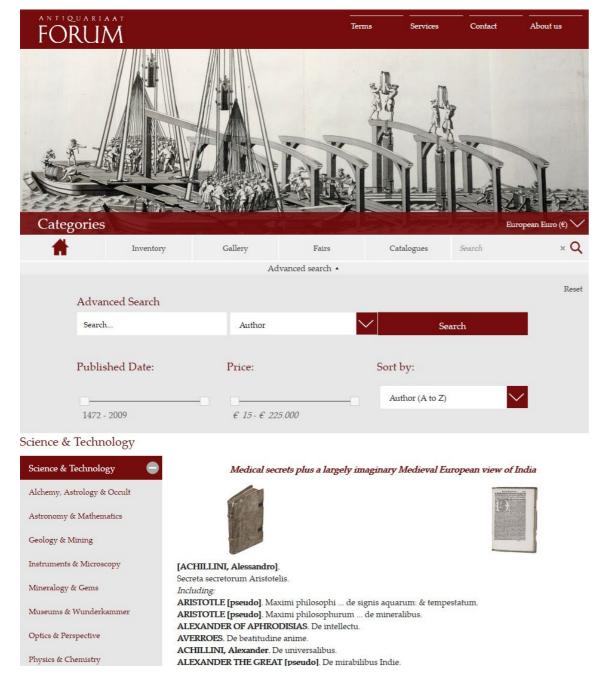
First and only edition of an acclaimed textbook on conic sections by Nicolaas Ypey (1714–1785), professor of mathematics and fortification at Franeker. It opens with a preface by Pibo Steenstra, whose *Grondbeginselen der meetkonst* (1771) reflected Ypey's mathematical lectures. Divided into three chapters it treats respectively the parabola, the ellipse and the hyperbola. Ypey published several works on fortification and applied mathematics and was influenced by the important Frisian hydraulic engineer Willem Loré.

Several water stains, plates frayed, otherwise in good condition.

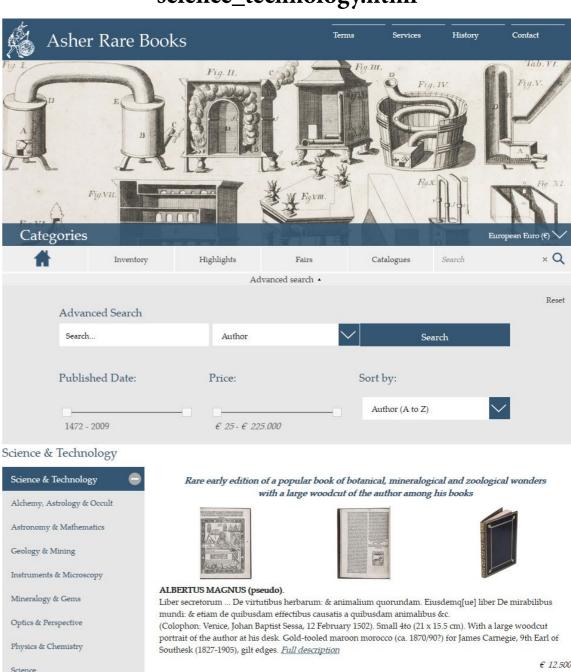
XXVIII, 68 pp. Bierens de Haan 5421; Sloos, Warfare 14171; STCN (8 copies); for Ypey: NNBW V, cols. 1161–1162. > More on our website

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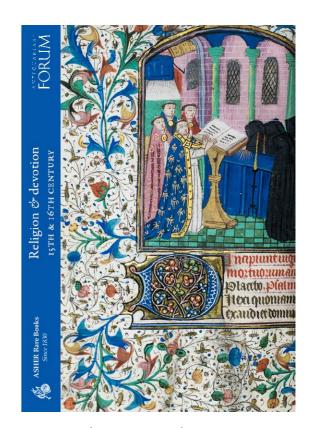
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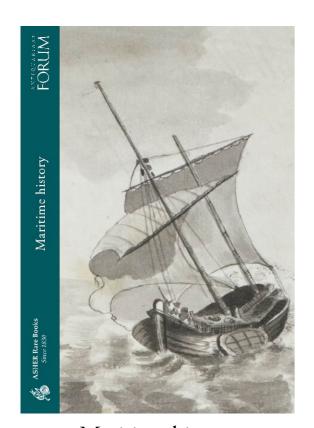
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Summer catalogue, part 1

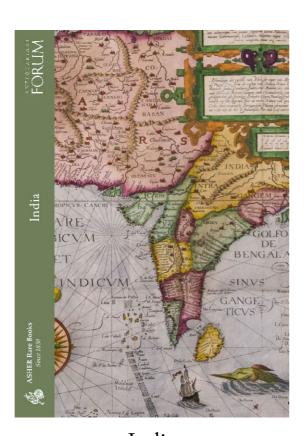
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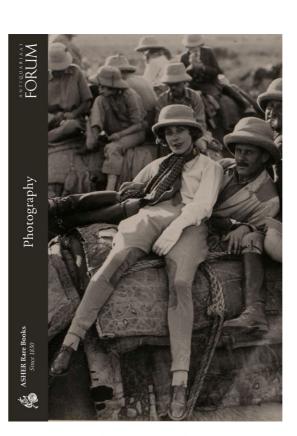
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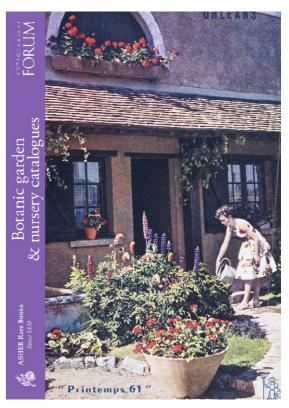
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