

Astronomy & mathematics

E-CATALOGUE

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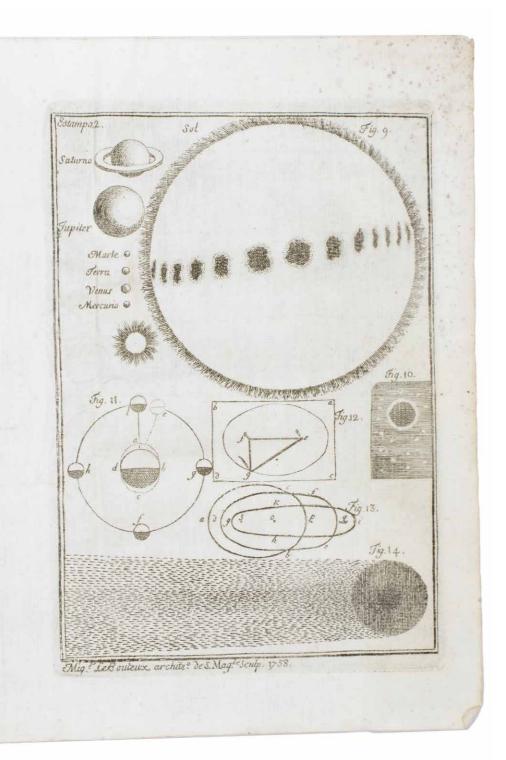


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A Portuguese work on cosmography and comets

1. AHLERS, Francisco Henrique. Instrucção sobre os corpos celestes, principalmente sobre os cometas.

Lisbon, Miguel Manescal da Costa, 1758. 4°. With 3 folding engraved plates by M. le Bouteux, etched headpiece and initial. Contemporary calf. € 1500

Interesting Portuguese work on cosmography and comets, divided into two parts. The first part discusses cosmographical theories and the construction of the universe, the second is devoted to comets. The work includes a table listing the appearances of comets between 1337 and 1698. The plates show celestial bodies, and the cosmological systems of Copernicus, Tycho and Ptolemy. Some waterstaining; binding slightly worn. Good copy.

[18], 86, [4] pp. WorldCat (9 copies); not in Houzeau-Lancaster. > More on our website

EYGENSCHAPPEN DRIEHOECKEN met een half en anderhalf RECHTENHOECK, Waer onder verscheydene voorstellen sijn, die de rechthoeckige ende andere driehoecken betreffen. Met noch Een tractaet handelende van vierkantinghe en deelinghe van verscheydene Figuyrendoor circkelboghen besloten. Door HIPPOLYTUS BEYEM van AERSSEN ICtus. & Mathematicus. By EYVO TAECKES WIELSMA, Bockverkooper woonende in de S lmans-straet. 1671.

Geometry textbook

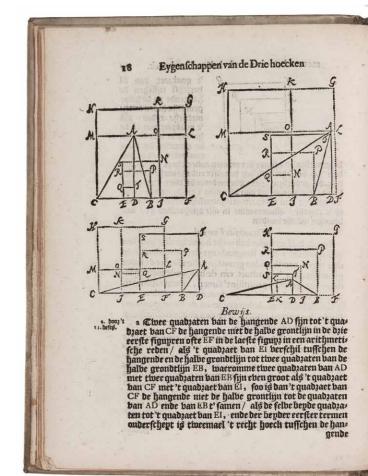
2. BEYEM VAN AERSSEN, Hippolytus. Eygenschappen der driehoecken met een half en anderhalf rechtenhoeck, waer onder verscheydene voorstellen sijn, die de rechthoeckige ende andere driehoecken betreffen. Met noch een tractaet handelende van vierkantinghe en deelinghe van verscheydene figuyren door circkelboghen besloten.

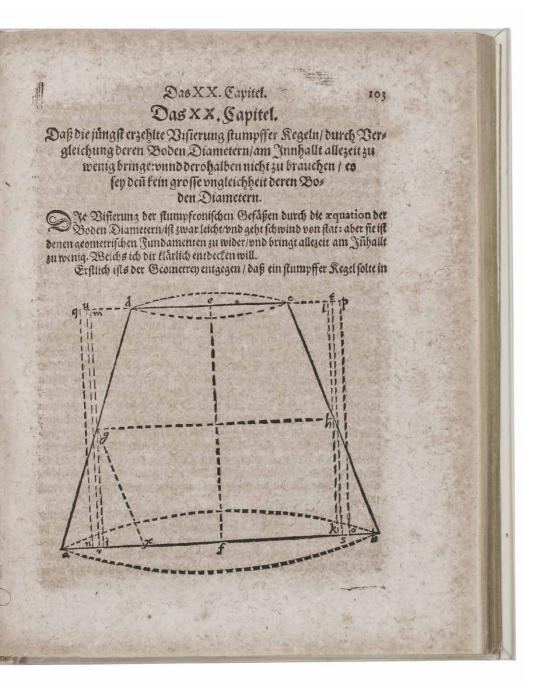
Leeuwarden, Eyvo Taeckes Wielsman (colophon: printed by Schelte Jochems), 1671. 4°. With a woodcut diagram on title-page, numerous woodcut diagrams in text. Contemporary vellum. € 2250

Geometry textbook by the otherwise unknown author Hippolytus Beyem van Aerssen, printed in Leeuwarden. The volume contains two treatises, the first part deals with triangles and some aspects of rectangles, the second treatise is on geometrical figures within circles as well as some remarks on the squaring of the circle. The final leaf contains errata.

Minor ink stain on title-page, page II with small holes and some loss of text, diagram on page 62 pasted into text, faint marginal water stain in some parts. Clean and well-preserved copy.

[8], 102, [4], 103–117, [3] pp. Bierens de Haan 306; for the author: V.d. Aa, Bijvoegsel, p. 16. More on our website





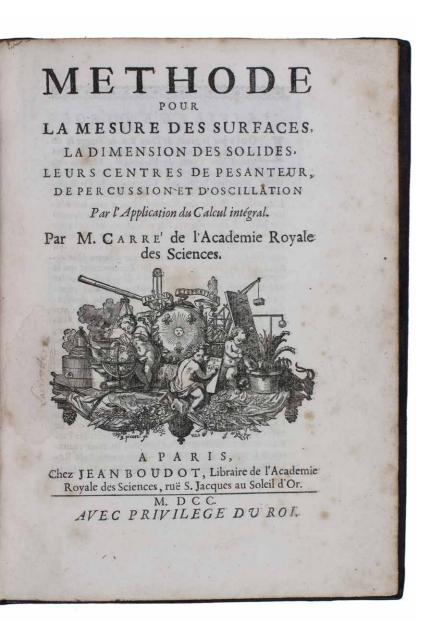
Important work on the calculation of volumes

3. BEYER, Johann Hartmann. Ein newe und schöne Art der vollkommenen Visierkunst: derengleichen hiebevor niemaln in keiner Spraach gesehen worden ...

Frankfurt am Main, printed by Palthenius for Jonas Rosa, 1603. 4°. With numerous tables and several woodcut diagrams and figures in text. Modern overlapping vellum. € 7500

First German edition of an important treatise on solid geometry by the Frankfurt physician and mathematician Johann Hartmann Beyer (1563–1625). It includes calculations of exact or approximate volumes of solid figures such as glasses, buckets and barrels (which Beyer treated as 2 truncated cones put together). The author published a work on decimals, *Logistica decimalis*, and is sometimes (wrongly) credited with the invention of the decimal fraction. He corresponded with Ludolf van Ceulen and Johannes Kepler: the latter refers to Beyer in his *Nova stereometria* (1615). Owner's inscription on title-page, dated "1625" and partly erased, browned throughout, otherwise in very good condition.

[12], 68, 191 [1 blank], [38] pp. *Honeyman 321; Poggendorff I, p. 183; VD 17, 547:658949Q; for the author: NDB II, p. 204.*More on our website



First edition of the most comprehensive work on integral calculus of its day, with 4 folding plates

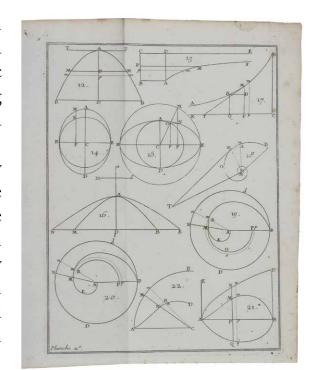
4. CARRÉ, Louis. Methode pour la mesure des surfaces, la dimension des solides, leurs centres de pesanteur, de percussion et d'oscillation, par l'application du calcul intégral.

Paris, Jean Boudot, 1700. 4°. With a large woodcut vignette (by Bernard Picart) on the title-page, 4 folding numbered engraved plates containing 43 numbered diagrams, an engraved headpiece and initial at the opening of the main text. Contemporary sprinkled calf, gold-tooled spine. € 4000

First edition of the first extensive, separately published textbook on integral calculus, by Louis Carré (1663–1711), French mathematician and private teacher at Paris, published 44 years before Leonard Euler's classic textbook. It includes a wide variety of practical applications, including the measurement of surface areas, the determination of the volumes and centres of gravity of solid bodies, and problems of dynamics.

With a contemporary owner's name on the title-page, a later 18th-century manuscript note on the endleaf and a couple manuscript notes in the text. A failed attempt to wash out the owner's name on the title-page has left a small faint stain. With the title-page slightly foxed and an occasional minor spot, but still in very good condition and with very large margins. The binding shows some cracks in the hinges, superficial damage to the leather and some corners skilfully repaired, but is still good and structurally sound. The most thorough presentation of integral calculus to its date.

[12], 115, [1 blank] pp. Goldsmith BMC STC French 345; I. Grattan-Guinness, ed., Landmark writings in Western mathematics 1640–1940 (2005), p. 56; Poggendorff I, 383–384. More on our website



DE

CYFER-KONST,

Noyt voor desen

Den Leerlingen grondiger, noch ook duydelijcker, voorgestelt.

Beschreven door

DAVID COCK VAN ENCKHUYSEN.

Den Vijfde Druck,

Dan alle mig-dzuck gesupbert / berbetert / ende merchelijch vermeerdert / dooz Dir ckde Hol-Lander, Italiaens Boeck-houder/ teechen-Meester ende Lief hebber der Wig-konst.



t'AMSTERDAM,

By de Wed: van Gysbert de Groot, Boechberkooper op de Nieuwen-Dijck / tusschen de twee Paerlemmer-Sluysen/Amo 1696.

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

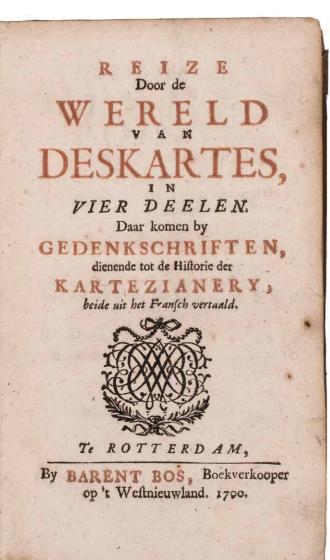
5. COCK, David. De cyfer-konst, noyt voor desen den leerlingen grondiger, noch ook duydelijcker, voorgestelt. ... Den vijfde druck, van alle mis-druck gesuyvert, verbetert, ende merckelijck vermeerdert, door Dirck de Hollander ...

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.



A Jesuit refutation of Descartes's vortex theory, presented as a novel of space travel

6. [DANIEL, Gabriel]. Reize door de wereld van Deskartes.

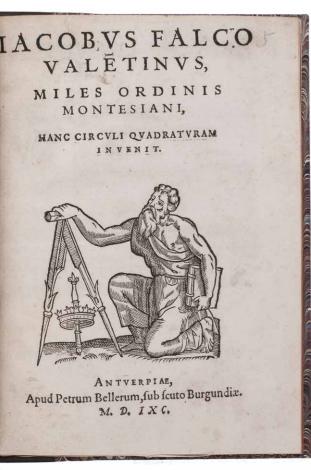
Rotterdam, Barent Bos, 1700. 8°. With 16 astronomical woodcuts in the text. Contemporary mottled calf.

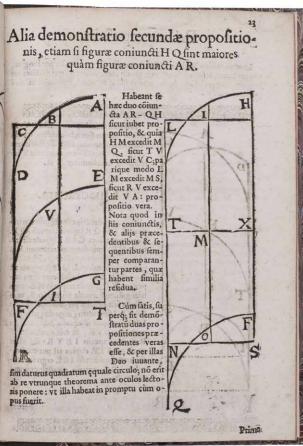
First Dutch edition of Daniel's philosophical and satirical novel, augmented with a translation of Pierre-Daniel Huët's brief history of Cartesianism. Part of the work was translated by Pieter Rabus, who also prefaced it with a poem. It was originally published in French as *Voiage du monde de Descartes* (1690) and attempts to refute Decartes's vortex theory of planetary motion, discussed in his *Principles* and later superseded by Newton's theory of gravity. It describes a voyage past the moon to "the space beyond the universe". This makes it not only an interesting example of the strife between science and religion, but also an entertaining and pioneering work of science fiction.

Some browning and staining. Binding shows some wear; pastedowns not pasted down; hinges weak. Otherwise in very good condition.

[32], 398, [2], 52, [4] pp. Buisman 437; STCN (5 copies); Thijssen-Schoute, pp. 551–552. >> More on our website







Early bogus claim to have squared the circle, with the circle's views on the matter

7. FALCO, Jacobus (Jaime Juan FALCÓ y SEGURA). Hanc circuli quadraturam invenit.

Antwerp, Petrus Bellerus (Peter Belaert), 1591. Small 4° (19.5 × 14 cm). With a woodcut of Euclid (or possibly Archimedes) with an enormous pair of dividers in his right hand and a book in his left, and between the two legs of the dividers a sceptre passing through a crown, and 29 woodcut diagrams. 20th-century half calf. € 2950

Second edition of an early treatise claiming to have squared the circle (geometrically constructed a square matching the surface area of a given circle, shown to be impossible in 1882). Falco (Valencia 1522—Madrid 1594), a humanistic poet and mathematician, and a Knight of the Order of Montesa, seems to have been a better poet than mathematician. His treatise has been called "more than commonly worthless" (De Morgan, *A budget of paradoxes*, 1872, p. 36), but it ends with a charming poem. In the first verse, the disappointed squared circle wonders who robbed it of its former noble form, and in the second Falco replies.

With the direction line (containing the quire signature and/or catchword) shaved on 4 pages, but still in very good condition, binding fine. An ill-fated attempt to solve an impossible problem, here by someone who thought he had succeeded.

29, [1] pp. Anet 12863042; Netherlandish books 12099, 12097 (misdated) and probably 12098 & 12100 ; USTC 406886, 402179 (misdated) and probably 407081 & 441190; not in STCV. ► More on our website

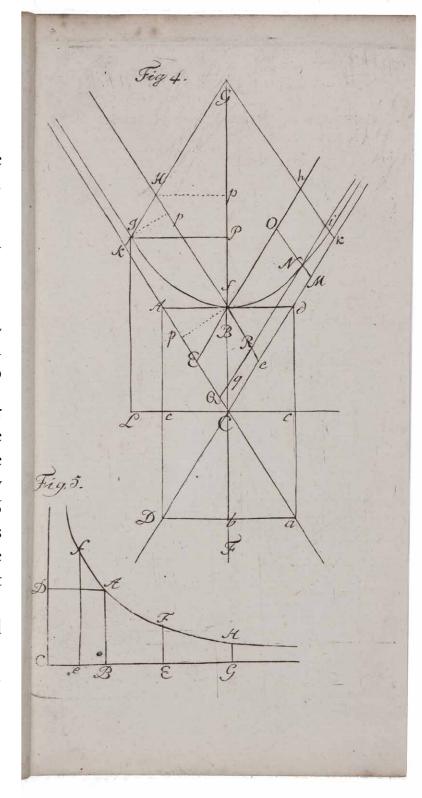
Rendering calculus unnecessary, with two rare supplements

- **8.** [FRESENIUS, Johann Franz Theodor]. Neue sehr einfache Theorie krummlinichte Flächen zu quadriren, auf Summation unendlicher Reihen gegründet. Mit einem Kupferblatt. *With*:
- (2) [FRESENIUS, Johann Franz Theodor]. Fortsetzung der neuen Theorie, durch Summation uneindlicher Reihen ... zu quadriren. ... Mit einem Kupferblatt.
- (3) [FRESENIUS, Johann Franz Theodor]. Zweyte Fortsetzung der neuen Theorie, ... Frankfurt am Main, J. Ch. C. Diez, 1806–1809. 3 parts in 3 volumes. 8°. With 5 figures on 2 engraved plates. In contemporary wrappers, parts 1–2 of uniform green paper, part 3 of brown paste paper. € 800

First and only edition, including the two rare supplements, of a work on quadrature that the author calls a "new very simple theory for squaring curved surfaces based on the summation of infinite series," intended to make differential and integral calculus unnecessary. His goal is to demonstrate the usefulness of sums of infinite series in place of differential and integral calculus. The 1811 review found little new in Fresenius's "theory" and noted its similarity to the methods of John Wallis's 1656 *Arithmeticam Infinitorum*. Little is known about the author, who signed only the dedications, but parts 1 and 2 are dedicated to teachers, suggesting he was still young. Fresenius is therefore probably the identically named author of a half dozen works on religion, history and education published in Frankfurt in the years 1836 to 1853, including *Zur Geschichte der Erfindung des Buchdrucks*.

In very good condition, with part 3 slightly browned and its edges tattered. An immature mathematical work by a curious author, with the rare supplements containing clues to his early life.

[2], 14; [4], 17–36; [2], 37–57 pp. Jenaische Allg. Literatur-Zeit. VIII.II (no. 110, 15 May 1811); KVK (5, 3 & 1 copies); World Cat (4, 1 & 1 copies). Some on our website



CATECHISME

SUIVI

DE TROIS DIALOGUES

ET DE LA LISTE

DES ECLIPSES DE SOLEIL ET DE LUNE

CALCULEES POUR LE BANGALE

A PARTIR DE 1836 JUSQU'EN 1940 INCLUSIVEMENT.

NOUVELLE ÉDITION, REVUE ET CORRIGÉE.

কৃপার শাস্ত্রের অর্থবেদ।

সূর্য্যের আর চন্দ্রের গ্রহণ গণনার সহিত ১৪০ বৎসরের

আরম্ভ ১৮৩৬ সালঅব্ধি

শহর চন্দ্রনগর

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A rare and unusual set of texts, written and printed in Bengali

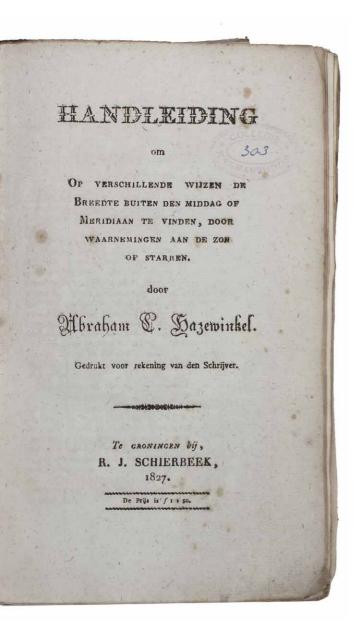
9. GUÉRIN, Jacques F.M., and Manuel da ASSUMPÇAO. Catéchisme suivi de trois dialogues et de la liste des éclipses de soleil et de la lune calculées pour le Bengale à partir de 1836 jusqu'en 1940 inclusivement. Nouvelle édition, revue et corrigée.

[Serampore, 1836]. Large 8°. Contemporary brown cloth, paper spine label with the title in Bengali and red sprinkled edges. € 950

Two texts: a catechism in the form of three dialogues between a clergyman and his disciple, and a list of all solar and lunar eclipses in Bengal between 1836 and 1940, by J.F.M. Guérin (1802–1861), a French missionary and priest of the church of Saint Louis in Chandannagar, West Bengal, India. In 1827 he travelled to India, where he first resided in Calcutta, then moved to Chandannagar and later visited other places in the Indian subcontinent and the Middle East before returning to France in 1847. Guérin checked and corrected the catechism, a bilingual work in Bengali and Portuguese written by the Portuguese missionary Manuel da Assumpçao in 1735. It was published in Lisbon in 1743 and both the Portuguese and Bengali versions of the text were set in roman type, since no Bengali type existed until Joseph Jackson cut one for Charles Wilkins 35 years later (first used in 1778). Guérin added the list of eclipses. He took a great interest in astronomy (especially Indian astronomy) and after his return to France in 1847 he published an astronomical work based on Sanskrit manuscripts on the subject.

With some foxing, and the binding slightly damaged around the spine, otherwise in very good condition. A rare publication in Bengali, printed in Serampore.

[2 blank], VII, [1 blank], 119, [1 blank] pp. WorldCat (4 copies). > More on our website



Introducing the Dutch standard method of calculating latitude in the 19th century

10. HAZEWINKEL, Abraham Cornelis. Handleiding om op verschillende wijzen de breedte buiten den middag of meridiaan te vinden, door waarnemingen aan de zon of starren.

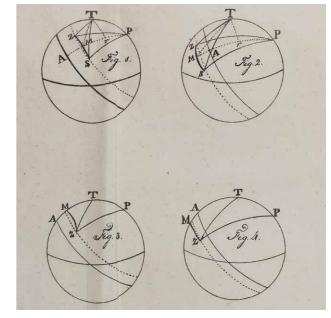
Groningen, R.J. Schierbeek, 1827. 8°. With a lithographed folding plate and numerous letterpress tables (numbered I-VI, but some spread over several pages). Contemporary boards, covered with red sprinkled paper, rebacked with brown paper tape. € 850

Very rare first edition of a guide introducing Hazewinkel's method of calculating latitude, which was subsequently implemented as the standard method in the national Dutch marine and remained in use until the end of the 19th

century. This method by Abraham Cornelis Hazewinkel (1772–1842), a ship's captain who established a Dordrecht school for training sailors in 1817, was also invented simultaneously, but independently, by the Dutch mathematician Rehuel Lobatto (1797–1866), and is known as the Lobatto-Hazewinkel method. It replaced the longer method of Cornelis Douwes, introduced in the late 18th century. An equally rare second edition, published in 1839, was reprinted in facsimile in 1992.

With a library stamp on title-page, some occasional foxing, one leaf slightly soiled in the lower margins, binding slightly rubbed and rebacked, with the top of the spine torn. Good nearly untrimmed copy, with most of the deckles intact.

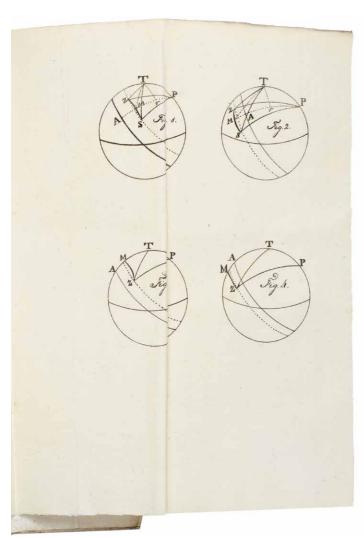
10, [2], [42], 66 pp., 3, [1] ll. Bierens de Haan 1943; Cat. NHSM, p. 687; Crone Library 807, cf. pp. xlvii-xlviii; Maritieme Gesch. der Nederlanden III, p. 216; Picarta (2 copies); Saakes VIII, pp. 371–372; WorldCat (same 2 copies). 🄛 More on our website



Guide to the Dutch standard method of calculating latitude in the 19th century

II. HAZEWINKEL, Abraham Cornelis. Handleiding om op verschillende wijzen de breedte buiten den middag of meridiaan te vinden, door waarnemingen aan de zon of sterren; ... Tweede druk.

Amsterdam, widow of Gerard Hulst van Keulen, 1839. 8°. With a lithographed plate and several letterpress tables. Contemporary boards. € 750



Rare revised and enlarged second edition of a guide to Hazewinkel's method of calculating latitude, which was implemented as the standard method in the national Dutch marine after the publication of the first edition in 1827 and remained in use until the end of the 19th century. This method by Abraham Cornelis Hazewinkel (1772–1842), a ship's captain who established a Dordrecht school for training sailors in 1817, was also invented simultaneously, but independently, by the Dutch mathematician Rehuel Lobatto (1797–1866), and is known as the Lobatto-Hazewinkel method. It replaced the longer method of Cornelis Douwes, introduced in the end of the 18th century.

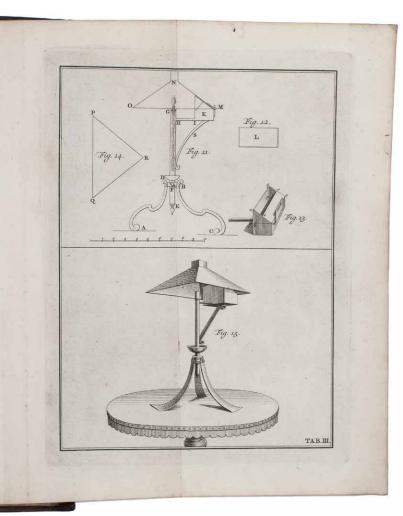
With a library stamp on title-page, some occasional foxing, and the binding with the top of the front hinge cracked. Good copy.

[4], 53, [3 blank], 31, [1 blank] pp. Crone library 838 (cf. pp. xlvii-xlviii); Maritieme gesch. der Nederlanden III, p. 216; Picarta (3 copies); WorldCat (same 3 copies); cf. Bierens de Haan 1943 (first ed.); Cat. NHSM, p. 68 (first ed.). \(\subseteq \) More on our website

Gerard de Lairesse's famous drawing manual, with 8 engraved plates

12. LAIRESSE, Gerard de. Grondlegginge der teeken-konst, zynde een korte en zeekere weg om door middel van de geometrie of meetkunde, de teeken-konst volkomen te leeren. ... Tweede druk.

Including: **SEGNER, Johann Andreas.** Beschryving van twee verscheide zeer bekwame en zuinige als mede het gezicht bewarende lampen, ... Amsterdam, Gerrit Tielenburg, 1766. 4°. With a engraved illustration on title-page, 8 engraved plates (including 1 mezzotint) and 6 engravings in text, mostly after designs by the author, and ad 2 with 3 folding engraved plates. Contemporary richly gold-tooled calf, gilt edges. € 1500

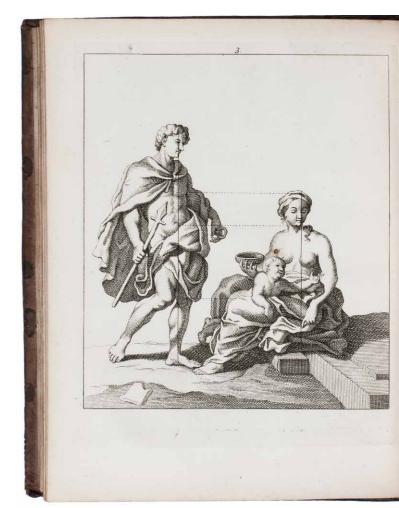


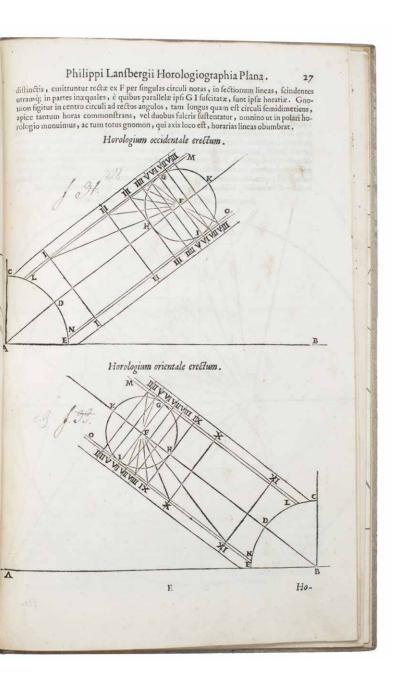
Second edition of a popular practical manual teaching the art of drawing by the famous Dutch painter Gerard de Lairesse (1640–1711). The book is divided into two parts, the first part teaching young children in 12 lessons the principles of drawing based on geometry, and in the second part a more advanced course is given in 10 so-called "propositions" for professional art students, including a detailed plan for the installation of an Art Academy. Gerard de Lairesse, sometimes called the Dutch Poussin, devoted himself to teaching after he became blind in 1690. Being a classicist, his theories were mainly based on Junius's *De pictura Veterum*, and on Charles Dufresnoy's *De arte graphica*, but the practical side of his teaching, based on his own lifelong experience, gives his text books their special interest and importance.

The treatise by Segner teaches how to construct lamps which were economic and efficient and also spared the artist's eye-sight. The plates extensively show how to construct such lamps as well as their oil-reservoirs.

Slightly browned, with some faint, marginal foxing on only a few pages. Binding slightly rubbed along the extremities with some restorations to the spine. A very good copy in attractive binding.

[16], 115, [1 blank]; [4], 16 pp. Bierens de Haan 2609; Kunst op schrift 137.





Well-illustrated treatise on sundials, by a Dutch defender of Copernicus

13. LANSBERGE, Philip van. Horologiographia plana: in qua omne genus sciotericorum horologiorum, quae plano cuilibet inscribi possunt, certis evidentibusq[ue]; ...

Middelburg, Zacharias Roman, 1663. Small 2° (28.5 × 17.5 cm). With 61 woodcuts in the text (1 repeated on the title-page, illustrating a sundial), many more than half-page, including both sundials and diagrams illustrating how they work. With extensive 19th-century manuscript notes on the back of the title-page. Lacking 2 leaves containing Roman's dedication. Modern paper-covered boards. € 3500

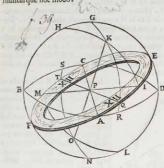
Rare first (and only Latin) edition of Van Lansberge's detailed and well-illustrated treatise on sundials, posthumously published by Zacharias Roman in Middelburg, who had published most of his works. Roman says he found this text in manuscript among the papers of Van Lansberge's estate. Planning the publication of the complete works, he decided to publish this text as well. The present treatise was designed to be bound with the *Opera omnia*, published in the same year.

From the library of Christopher St. John Hume Daniel, author of several recent books on sundials. Lacking folios A2–3, containing Roman's dedication to Nicolaas Blanckaert and brief note to the reader, and with a few of the figures shaved by the binder, but otherwise in very good condition.

[2], 53 pp. Bierens de Haan 2675; STCN (5 copies); not in Poggendorff; for Lansberge: DSB VIII, pp. 27–28; NNBW II, cols. 775–782. >> More on our website

Philippi Lansbergii Horologiographia Plana.

quadrans meridiain G, & in ipfo polus arcticus K; arcus declinationis plani à meridie R D; quadrans H I ex H polo circuli plani per K in I ductus, & in ipfo arcus I K diffantia fili à fub-filiari: Arcus QI diffantia fubfiliaris à meridiana; tandemq; arcus A Q diffantia meridiana obliqua ab A puncto horizontis. Quæruntur jam arcus A Q, QI, & I K: invesionament hor modo.



I. In Triangulo ARQ rectangulo ad R ex fabrica, datur arcus AR, complemenum ipfius RD arcus, declinationis viz, folis, cum angulo ad A reclinationis foli; quare per 6m porifina duodecimi IIII Geometria Triangulorum, acquiritur angulus ad Q. Nam

Ut radius ad finum complementi AR, ita finus anguli A, ad finum complementi ang. Q.

II. Ex latere AR, & angulo Q in eodem triangulo (vel ex alus, quia plura cognita funt) obtinetur basis AQ. Nam per 3^m porisma Theorematis citati,

Ut finus anguli Q ad radium, ita finus lateris A R, ad finu bafis A Q.

111. In codem triangulo , ex A Q bafi , & angulo ad A (five aliis , quia plura data funt) patefeit latus QR. Nam per primum porifina allegati Theorematis ,

Ut radius ad finum basis A Q, ita sinus anguli ad A, ad sinum lateris QR.

Porro cum arcus K R ex hypothefi fit cognitus , elevationis feil. poli , arcufque Q R \max inventus fit , datur quoque K Q utriufque differentia .

1111. In triangulo K I Q rectangulo ad I ex constructione, ex data basi K Q, & angulo ad Q, qui æqualis est angulo A QR, invenitur latus K I. Nam per præmissum porisma,

Ut radius ad basin K Q, ita sinus anguli Q, ad sinum lateris K I.

V. In codem triangulo, ex latere I K invento, & bafi K Q, vel ex aliis, quia & alia data funt, addifettur latus Q I. Nam per 4^m porifina duodecimi IIII Geometriz Triangulorum,

Ut finus complementi lateris I K ad radium , ita finus complementi bafis K Q , ad finum complementi lateris Q I. Quæ fuerunt investiganda.

Eodem verò modo proceditur in horologio inclinato, quemadmodum ex schemate nostro, iiss, quæ in superiori exemplo monaimus, manifestum est.

Sub-

·· (119) 800m

0356:0356:03560:0356

Mun folget ber

ALGORITHMUS,

oder

die Art von denen Buchern.

In Bruch ift nichts anders, als ein Theil oder Stuck eines gangen.

Ein jeder Bruch wird geschrieben mit zwo Bahlen, welche ein Strichel in der Mitte untersscheidet, als:

1 2 3 4 5 6 7 3ehler.
2 3 4 5 6 7 8 Menner.

Die Jahl, fo über dem Strichel stehet, wird der Zehler, die Jahl aber, welche unter dem Strichel stehet: wird der Nenner benamset.

On arithmetics and clocks

14. LECHNER, Johann Baptista. Facillima artis arithmeticae methodus, das ist: sehr leichter Unterricht und Lehr-Art, der höchst-nothwendigen und nutzbaristen Rechen-Kunst ... zum neunten mal in den Druck gegeben.

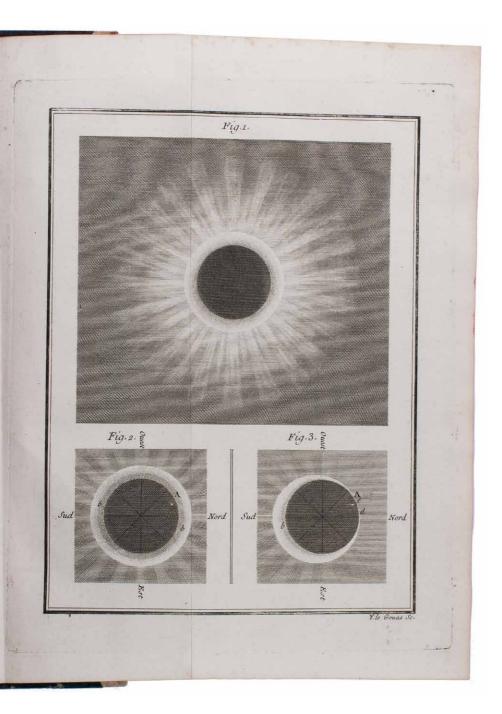
Augsburg and Innsbruck, Joseph Wolff, 1752. 8°. Contemporary calf.

€ 500

Rare edition of a very popular introduction to arithmetic's with numerous practical applications and at the end a section on clocks (pp. 318–344) titled "Zugab etwelcher Zahlen zu unterschiedlichen Uhren".

Unobtrusive water stain on title and first leaves; slightly browned in places. Very rare edition of a popular work on arithmetic's and clocks.

347, [3, I blank] pp. Not in Honeyman; Poggendorf; WorldCat. > More on our website



Astronomical, atmospheric and riverine physics by King Louis XV's favourite astronomer

15. LE MONNIER, Pierre-Charles. Mémoires concernant diverses questions d'astronomie et de physique. Lûs & communiqués à l'Académie Royale des Sciences, &c.

Paris, Imprimerie Royale, 1781. 4°. With woodcut vignette on title-page (with an armillary sphere and other instruments), and an engraved folding plate with 3 illustrations of eclipses engraved by Y. le Gouaz. Near contemporary half mottled calf. € 5000

First edition of a treatise concerning several questions of astronomy and physics, written by the famous astronomer Pierre-Charles Le Monnier (1715–1799). After the introduction, follow a short history of discoveries relating to the density of air, with reflexions on the gradients of rivers, especially the Seine; an extract of observations made in Paris and Rouen, to verify the gradient of the Seine; a discussion of the total eclipse observed in Africa on 24 June 1778 including Le Monnier's mistaken conclusion (based on the observed physical phenomena) that the moon has an atmosphere; a report sent to Le Monnier by the famous Spanish scientist Don Antonio de Ulloa, with his observations of the same total eclipse made from the ship *Espagne* near Cape Saint-Vincent in the Islands of Tercères; and a discussion of the shift in the apparent position of the sun observed by Gerrit de Veer at Nova Zembla in 1597 during Willem Barentsz.'s third voyage, a result of refraction.

Le Monnier was an important astronomer of the 18th century and the favourite astronomer of King Louis xv, who provided him with the best astronomical instruments for his research.

With very minor foxing, but otherwise in fine condition. The paste-paper sides are slightly rubbed, but the binding is also otherwise fine. An elegantly produced book by a leading French astronomer.

VIII, XXIV, 34 pp. Houzeau & Lancaster 3518; Sabin 40010; DSB VIII, pp. 178–179. 🄛 More on our website

First and only editions of a Jesuit's response to the threat of the new astronomy, financed by the Catholic former Queen Christina of Sweden

16. LEVERA, Francesco. Prodromus universae astronomiae restitutae de anni solaris, & siderei, ac dierum magnitudine in omni aeuo, & de reliquis periodis, motibus, & circulationibus solaribus admirandus, ...

Rome, Angelo Bernabò, 1663. Without the frontispiece engraved for this edition, not present in all copies, but with an engraved frontispiece originally intended for a different publication.

- With:
- (2) PALAZZI, Pietro. Novae ephemerides motuum solis ab anno 1664. usque ad annum 1670. completum ...
- (3) LEVERA, Francesco. De inerrantium stellarum viribus, & excellentia secundum quatuor positus earum insignes, ...
- (4) "MUTO, Savino" [= Francesco LEVERA]. Dialogus contra duas hic transcriptas epistolas nuper editas in Prodromum Francisci Leverae ... Rome, Angelo Bernabò, 1664. 4 works in 1 volume. Folio (33 × 23 cm). Contemporary, richly blind-tooled (Salzburg?) pigskin over tapered wooden boards, each board in a panel design with the Jesuit device (on the front board and on the back board a madonna and child. € 7500



First and only editions of extensive and detailed works on astronomy, astrology and calendrical calculation by the Roman Jesuit Francesco Levera (1622–1687), the astronomer favoured and extensively supported by the Catholic former Queen Christina of Sweden. The new discoveries and theories of Galileo and others in the 17th century, which appeared to contradict biblical accounts of the Universe, naturally disturbed Jesuits and other Catholics. Levera attempted to develop an astronomy in accord with the teachings of the church, hence the "restitution" of the title. He presents a strictly geocentric universe with not only stars but also planets generating their own light. He also accepts astrological theories of the association of heavenly bodies, zodiacal houses, etc. with natural properties (including weather) and human virtues and vices. These aspects are more fully explored in ad 3. He made his calendrical calculations, less than a century after the introduction of the Gregorian calendar, with considerable skill and rightly questioned the accuracy of some observations made by Cassini and his Bologna school of astronomers, who sometimes drew conclusions beyond the limits of their still somewhat primitive telescopes. Pietro Palazzi compiled the ephemerides (ad 2), with extensive tables of astronomical data, but it matches the other works in format and style and all four were printed by Bernobò. They are often bound together.

With early manuscript corrections in the text, some based on the book's own addenda. One woodcut tailpiece has been considerably extended in dark brown ink. The inserted frontispiece and the first title-page have come loose at the foot. The book shows occasional foxing and a few leaves are slightly browned. A few small worm holes affect only the margins and the gutter edge of the frontispiece. Still generally in good condition. The binding lacks I clasp, it shows very minor damage at the lower outside corners and some of the raised bands at the front hinge, and has a few scattered small stains, but is otherwise in very good condition, with the tooling crisp and clear.

[8], 417, [15]; [12], 12, [64]; 105, [6], [1 blank]; [2], 63, [1] pp. plus engraved frontispiece. J. L. Heilbron, The sun in the church (1999), pp. 114–123; Houzeau & Lancaster 8763; ICCU, VEAE001614, CFIE011800, CFIE011801, RAVE011797; Cantamessa, Astrologia 2506 & 3287 (ads 1 & 2); Thorndike VIII, pp. 321–323 (ads 1 & 3).

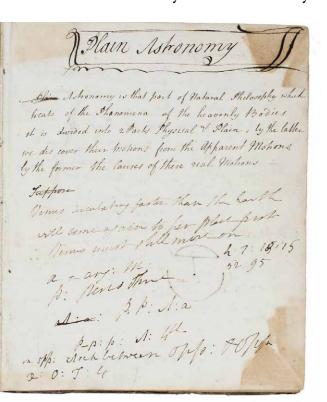
More on our website

Manuscript astronomical manual on the motions of the heavens

17. [MANUSCRIPT - ASTRONOMY]. Plain astronomy. Manuscript volume of notes on practical astronomy and mathematics.

[England?, ca. 1777/1781?]. 4to. Manuscript volume of notes on practical astronomy and mathematics in English, written in ink on Dutch paper with a Maid of Dordrecht watermark without countermark. The leaves are numbered from the front, 101 and 26 leaves of text and diagrams, 39 blank leaves in the middle, last 26 leaves in reverse order, illustrated with several astronomical and mathematical diagrams, including one of a solar system. Late 18th-century half calf, marbled sides. € 4750

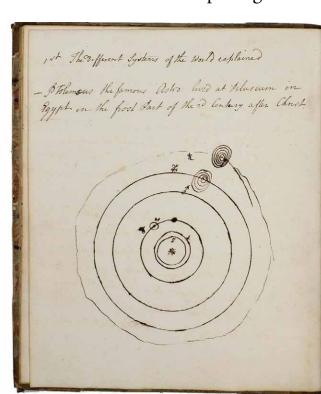
A fascinating manual of astronomy, written in English, particularly as it relates to the form of the motions of the heavens, dating from the period 1780-1825, probably from the beginning of that range. It is written in a single hand (with the exception of one page), though with some variations indicating that different parts of the MS were written at different times. The Ms could have been prepared for personal use or as part of public tuition (probably the former). The writer summarizes the subject matter of the manual on the first leaf: "Astronomy is that part of Natural Philosophy which treats of the Phenomena of the heavenly Bodies. It is divided into 2 Parts, Physical and Plain: by the latter we discover their Motions from the Apparent Motions; by the former the Causes of these real Motions." The manuscript comprises three parts, with distinct subject matter. The first part covers the motion of the earth around the sun, and its rotation about its axis, with the consequences for the apparent motions of the sun and the heavens; with the moon and its phases and motion; and with lunar and solar eclipses. There are several references to John Keill's *An introduction to the true astronomy* (London, 1721 or later editions). The second part principally discusses section 11 of Newton's *Principia* (1713 or later editions), in particular as it relates to the motion of the moon. This part ends with a short section on algebra, particularly polynomials, which seems to have been composed more haphazardly than the remainder of the text. The third part, which runs backwards starting from the end of the notebook, gives demonstrations of various results in Book I of *Principia*, notably the theorem that the orbits of the bodies in the solar system do not precess if and only if the central attractive force operating on them is exactly inverse-square. This is an important result not only for Newton's system of universal gravitation but also for the observational astronomy of the solar system which is discussed in the opening



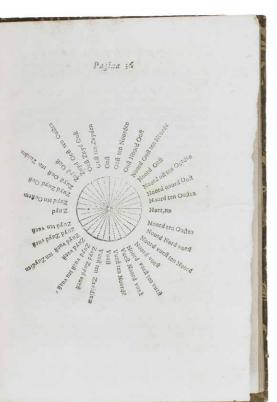
section of the book. Between the end of the second part and that of the third there are a few blank leaves, and others have been torn out, but the text appears to be complete. The manuscript hand remains fairly constant throughout the book: some variations more likely indicate the same writer at a different times or with a different pen than a different writer. The manuscript hand and paper together date the manuscript fairly securely to the period 1750-1825. If our hypothesis that the author used Thorp's edition of *Principia* is correct, that would date the manuscript no earlier than 1777. The section on the planets in the first part does not mention Uranus (Georgium sidus), discovered by William Herschel in 1781. Since the anonymous author seems to have followed astronomical discoveries closely, this suggests a date no later than 1781. We therefore tentatively date the composition ca. 1777/81. We are indebted to Scott Mandelbrote for his assistance with the description of this notebook.

Binding slightly rubbed. A couple pages have a tear at the foot and others are stained. Otherwise in very good condition.

101, 26, [39 blank], 26 ll. > More on our website







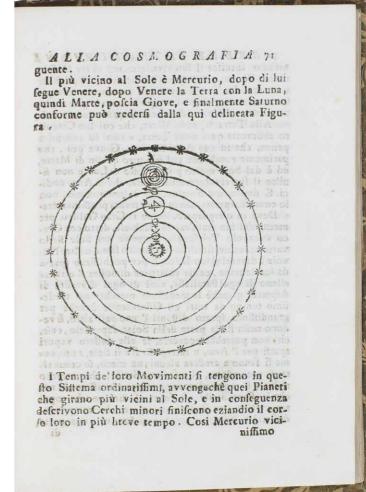
Tuscan cosmography in a local binding, with Augsburg gold-brocade cover papers

18. MARCHETTI, Angelo. Introduzione alla Cosmografia... edizione seconda si aggiunge in fine un Succinto Trattato di Navigazione dell' istesso Autore.

Pistoia, Atto Bracali, 1738. 2 parts in 1 volume. 4°. With 3 folding half-page plates and 1 folding letterpress table, 2 full-page plates, and 17 additional woodcut diagrams in the text. Contemporary boards, covered with gold-brocade paper. € 4500

Very rare second edition of Marchetti's *Cosmografia* (the last edition published during his lifetime), supplemented by the first edition of his treatise on navigation, both illustrated with woodcut diagrams. After several chapters on terminology, signs of the zodiac, etc., the author discusses the phases of the moon, solar and lunar eclipses, measurement, the Ptolemaic, Copernican, and Tychonic solar systems, and astronomical instruments (quadrants and terrestrial and celestial globes). Marchetti's *Succinto Trattato di Navigazione*, (Pistoia, Atto Bracali, 1738), though mentioned on the main title-page, has its own title-page, pagination and series of signatures, and was sometimes issued separately. It discusses navigational charts and their systems of parallels and meridians, compasses, measurement, etc. An early owner's inscription on the title-page has eaten through the paper, not affecting the printing but leaving some small holes and slightly staining the following page. Otherwise a very good copy in a local and contemporary gold-brocade binding, of a rare Italian cosmography.

[4], 137, [1 blank]; 33 pp. Riccardi, col. M-109; not in Inst. Cent. Cat. Unico; De La Lande; Norman Library; Waller; KVK (2 copies plus 1 of Navigazione alone); WorldCat (2 copies); Poggendorf II, col. 44. More on our website



Lister - Bocck

HEYLIGE SCHRIFT.

Ober de Belden / Bewighten / ende Maten der Hebzeen Arithmetisch geredus ceert op Belden / Gewigten ende Maten in onsen Lande en Tijdt gebzupchelijch.

DOOR

ADRIAAN DE NEEFF.

School - Meester binnen Middelburgh in de Schrijvende Handt.

Den Autheur heeft her noch by laten Dzucken de Heydelbergsche Carechismus met Dzagen ende Antwoozden/ op Kijm gestelt dooz R. D. M.



Tot MIDDELBURGH,

Dedzuckt (hp Gijsbertus Noorman, Bocck-Dzucker in de Nieuwe Konst en Bocck-dzuckerpe op de Wal) booz den Autheur. Anno 1682.

Met Privilegie voor 15 Jaren.

Learn how to count with the bible

19. NEEFF, Adriaan de. Cijffer-boeck der heylige schrift. Over de gelden, gewigten, ende maten der Hebreen arithmetisch gereduceerd op gelden, gewigten ende maten onsen lande en tijdt gebruykelijck.

Middelburgh, Gijsbertus Noorman, 1682. Small 8°. 2 parts in 1 volume. With woodcut vignette on 2 titles, and at the end of the second work, showing identical blank escutcheons. Contemporary vellum. € 1700

Popular schoolbook by a schoolteacher at Middelburg, teaching children arithmetic at the hand of the numbers quoted in the Bible. All the numbers of biblical amounts of money, measures or weights, were taught to be converted into contemporary Dutch amounts of money, measures or weights. At the end of the present work the Heidelberg catechism is added, with the questions and answers put to rhyme to facilitate the learning by heart for the younger children.

Few slight stains, old owner's entry in ink in all woodcut escutcheons, but erased in the first one. Binding slightly soiled. Good copy.

[14], 63, [1 blank]; [4], 75, [5] pp. Van der Haar, Schatkamer, N 85; cf. Van Rijn 501. School More on our website

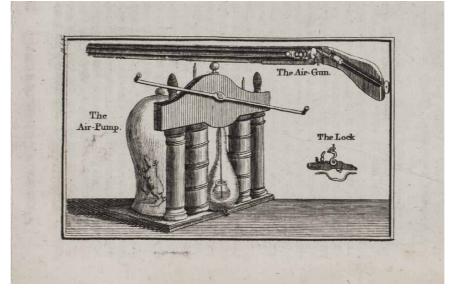
A fine example of an Enlightenment children's book

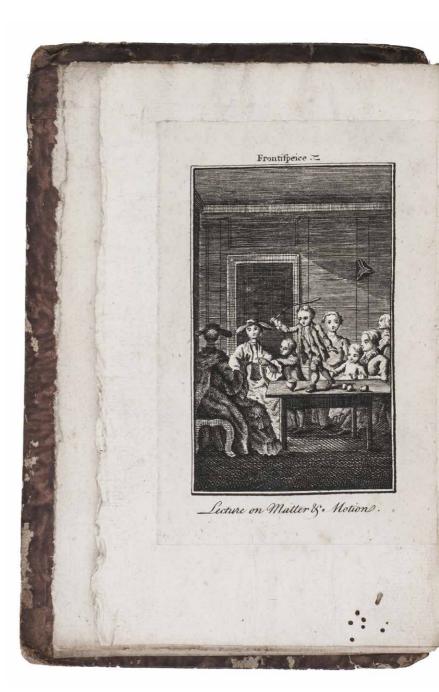
20. NEWBURY, John. Philosophie der tollen en ballen; of het Newtoniaansche zamenstel van wysbegeerte, geschikt naar de vatbaarheid der eerste Jeugd, en gemeenzaam en vermaaklyk gemaakt door voorwerpen, welke aan haar zeer bekend zyn: bestaande in ses lessen, geleezen voor de Lilliputiaansche Maatschappie, door Tom Telescope.

Middelburg, Christiaan Bohemer, 1768. 8°. With engraved frontispiece showing a little boy, Tom Telescope, standing on a table and explaining matter and motion to a group of other small children with some adults present too, a woodcut showing a pair of telescopes, and 8 fine engraved plates showing the solar system, an air-pump and air-gun, globes and armillary spheres, Vesuvius, etc. Contemporary half calf. € 1750

First Dutch edition, with engravings printed from the plates of the second English edition, of the famous English children's book on natural science: *The Newtonian system of philosophy adapted to the capacity of young gentlemen and ladies*, first published in 1761 and variously ascribed to John Newbury (1713–1767) or Olivier Goldsmith. The Dutch adaptor has remained anonymous. The book is meant for beginners in natural science and the six lessons are given by a very young and very bright child, Tom Telescope, using objects and situations familiar to children. But all is put on a very scientific base, according to the latest discoveries by Newton. Binding rubbed, top and bottom of spine worn off; small wormholes in lower margins. Internally in good condition.

[12], 134, [1], [1 blank] pp. Bibelebontse berg, pp. 187–188; Buijnsters, BNK 575; Cat. Van Rijn 323; cf. David M. Knight, Natural Science Books in English, p. 79 (1761 Engl. ed.).



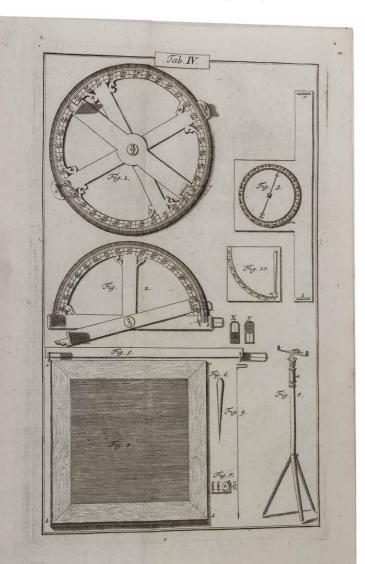


Richly illustrated monograph on surveying

21. PENTHER, Johann Friedrich. raxis Geometriae, worinnen nicht nur alle bey dem Feld-Messen vorkommende Fälle, mit Stäben, dem Astrolabio, der Boussole, und der Mensul, in Ausmessung eintzeler Linien, Flächen und gantzer Revier, welche ... eine Land-Carte ausmachen, auf ebenen Boden und Gebürgen, die Abnehmung derer Höhen und Wasser-Fälle, nebst beygefügten practische Hand-Griffen, deutlich erörtert... Neunte Edition.

With: (2) PENTHER, Johann Friedrich. Zugabe zur Praxi Geometriae, worinn noch verschiedene zur ausübenden Geometria nützliche Stücke, dabey auch zweyerley Arten architectonische Schnecken ... zu zeichnen angeweisen werden, und endlich eine Zusammensetzung einer guten Wasser Waage, wie auch derselben Gebrauch mitgetheilet wird.

Augsburg, J.M. Probst, 1788–1790. 2 parts in 1 volume. Folio. With 2 engraved frontispieces, second title-page with half-page engraved town view, and 39 folding engraved plates. Contemporary half calf. € 500

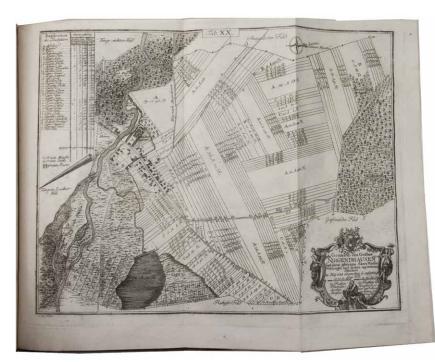


Ninth edition of "one of the most popular German works on surveying" (Sotheran). Johann Friedrich Penther (1693–1749), professor of mathematics and economy at the university of Göttingen) deals with geometry and its application in surveying. He discusses the instruments used, such as rules, compasses, graphometer, geometrical circle, geometrical table, surveyor's level pole, and shows how to calculate the size of differently shaped surfaces, circles, cones and cylinders, how to draw multiple-angled surfaces, circles, etc., how to calculate distances in flat areas and mountainous terrain, how to divide a piece of land, how to draw a fortification, etc. The *Zugabe* deals with the calculation of the contents of cones and cylinders. This knowledge is applied to tunnels, architecture (sloping walls, arches, etc.). Penther also includes his design for a surveyor's level pole. Each subject is accompanied by a folding

engraved plate showing measuring instruments, geometrical figures, maps of lakes, roads, estates, architectural structures, etc. Penther's lucid style and the attractive illustrations made his work very popular and it went through nine editions (see Sotheran, who states there were eight editions).

With owner's inscription. Small corrosion hole in frontispiece and pl. 36, wormhole in upper right corner throughout, slightly affecting upper right margin of the plates, some browning. Nevertheless a good copy with the plates in good condition.

[6], 97, [5]; 55 pp. Cf. Berlin Kat. 1735; Honeyman 2444, 2445; Poggendorf II, cols. 399–400; Sotheran, Second suppl. 2158–2159. Some on our website

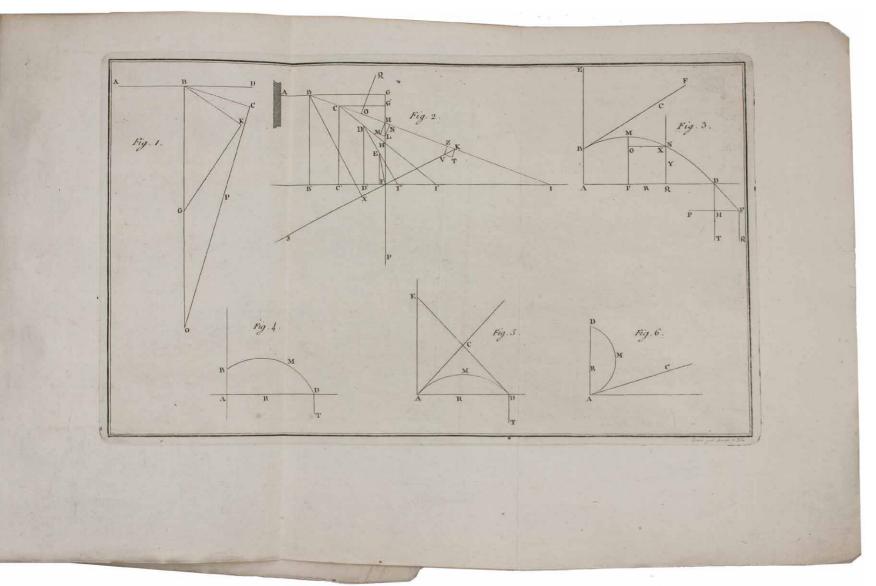


2 mathematical essays by Giovanni Plana, presentation copy

22. PLANA, Giovanni Antonio A. [Drop title]: Équation de la courbe formée par une lame élastique, quelles que soient les forces qui agissent sur la lame.

Including: Mémoire sur l'intégration des équations linéaires aux differences partielles du second et du troisième ordre. [Turin, Félix Galetti, 1811?]. 4°. With folding engraved plate by Amati & Tela. Contemporary wrappers.

€ 3500

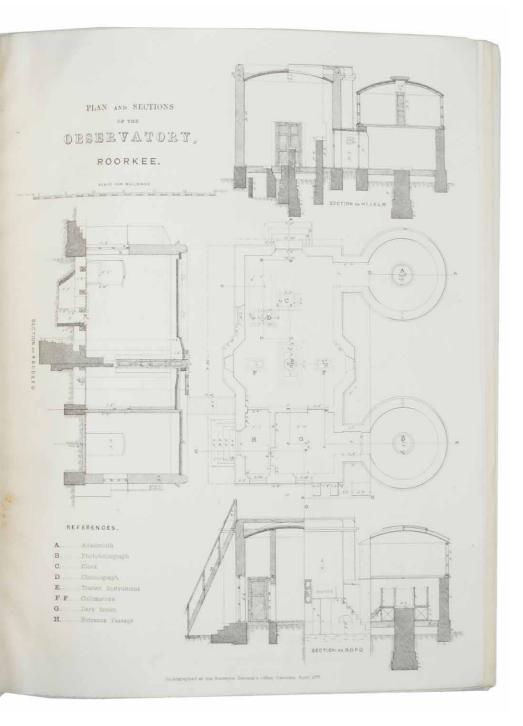


An offprint of 2 mathematical essays by the Italian astronomer and mathematician Giovanni Antonio Amedeo Plana (1781–1864), on the equation of a curve formed by an elastic string and on the integral equation. With a hand-written dedication on the front wrapper to "Monsieur Deleuret Capt. du corps Imperial du Génie". The essays were originally published in *Mémoires de l' Academie des Sciences, Litterature et Beaux Arts* XVIII (1811).

"Plana is generally considered one of the major Italian scientists of his age because, at a time when the quality of instruction at Italian universities had greatly deteriorated, his teaching was of the highest quality, quite comparable with that of the *grandes écoles* of Paris, at which he had studied" (DSB).

In good condition with the wrappers slightly wrinkled.

56 pp. Liste des ouvrages ... par le Baron Jean Plana, in: Bull. des science math. et astron. vol. 5 (1873), p. 5 no. 2–3; WorldCat (2 copies); for the author: DSB XI, pp. 6–7; Poggendorff II, 460–463.



The observation of Venus in the skies above the Uttarakhand region of India in 1877

23. TENNANT, James Francis. Report on the preparations for, and observations of, the transit of Venus, as seen at Roorkee and Lahore, on December 8, 1874.

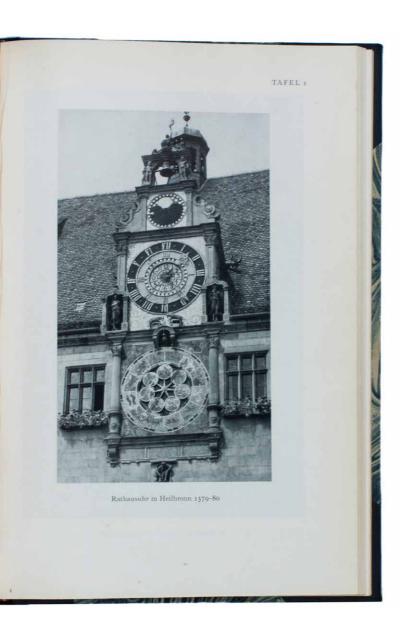
Calcutta, Office of the Superintendent of Government Printing, 1877. Large 4°. With 3 lithographed plates. Original publisher's paper wrappers. € 950

Very rare first (and only early) edition of a report written by colonel James Francis Tennant (1829–1915), who oversaw the whole project to observe and record the transit of Venus across the sun from Roorkee in India, near the foothills of the Himalayas, and Lahore, slightly further west (it was not visible from western Europe). This was the first transit of Venus since 1769, so that greatly improved instruments and the introduction of photography promised great opportunities for new discoveries. The transits come in pairs, but after the associated transit in 1882 there were to be no more until 2004, so it was essential to be thoroughly prepared and to set up in locations where good weather could be expected.

The report contains every relevant detail pertaining to the observation; from the preparations and necessary calculations to set up the equipment to the all-important results. In the preface, written in 1877 at the Royal mint in Calcutta, Tennant apologises for the delay in the publication of the report, three years after the transit of Venus took place. In 1876 he had been appointed to the Royal mint in Calcutta and thus had to move in the middle of finishing and publishing the report. In 1882 he retired and moved to England, where he took up several positions within the Royal Astrological Society and even was its president from 1890 to 1891.

With a small annotation in pencil on page 54 and a stamp on the title page of the library of the "Astronomisches Rechen Institut Berlin". The wrappers, slightly damaged at the spine, show slight signs of use. Very slight browning in the gutter margin of the preface leaf, not affecting the text and barely even affecting the margin. Otherwise in very good condition and without discolouration.

[4], 54 pp. WorldCat (1 copy). > More on our website



Standard work on astronomic instruments

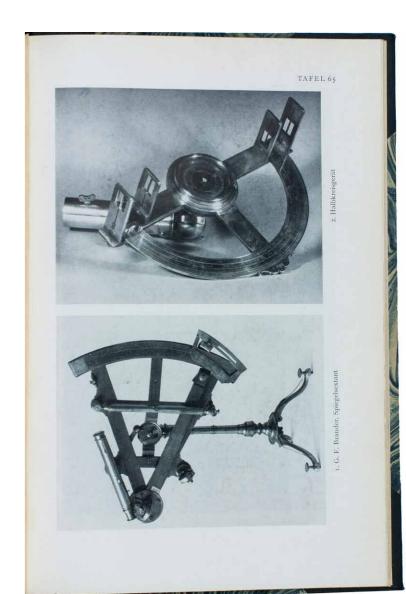
24. ZINNER, Ernst. Deutsche und Niederländische astronomische Instrumente des 11.–18. Jahrhunderts.

München, C.H. Beck'sche Verlagsbuchhandlung, 1956. With 80 numbered plates. Half cloth. € 250

First edition of a standard work on astronomic instruments from Germany and the Netherlands by the noted historian of astronomy Ernst Zinner (1886–1970).

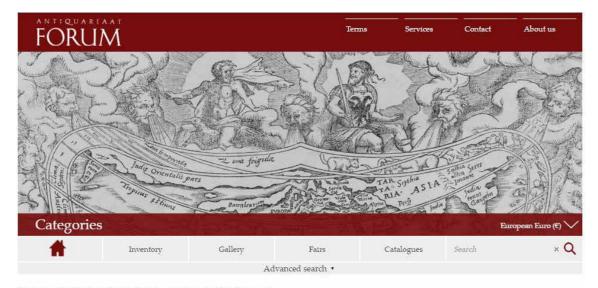
Very good copy

X, 678, [2] pp. ► More on our website



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www.forumrarebooks.com/category/science_technology/astronomy_mathematics.html



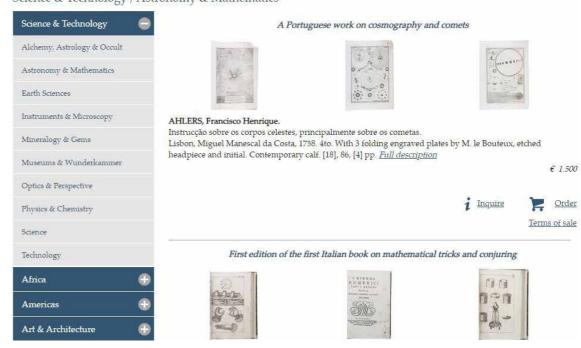
Science & Technology / Astronomy & Mathematics

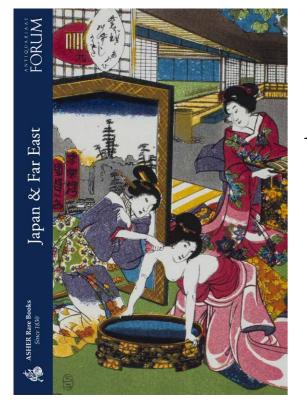


www.asherbooks.com/category/science_technology/astronomy_mathematics.html



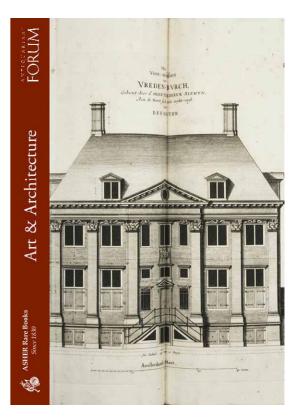
Science & Technology / Astronomy & Mathematics



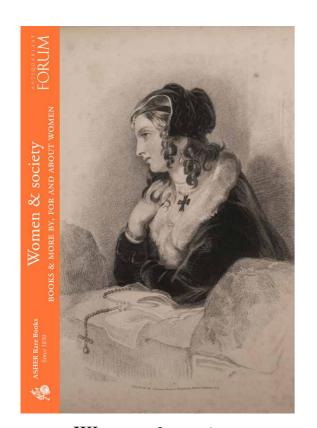


Japan & Far East

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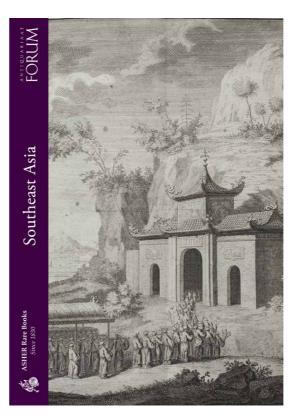
Art & architecture



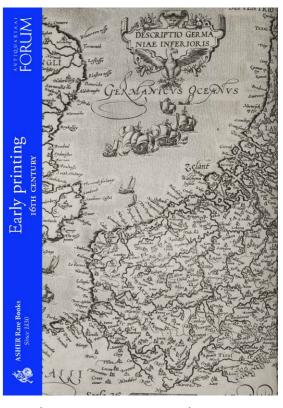
Women & society



Autographs, documents & manuscripts



Southeast Asia



Early printing - 16th century