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Antiquariat Michael Kuehn

Erdmannstrasse 11

10827 Berlin - Germany

mail: kuehn.rarebooks@arcor.de ; www.kuehn-books.de

tel.: +49 30 86396934 ; mobile: +49 170 7744060

fax.: +49 30 86396955

VAT: DE 812 539 755

Book Fair List NY

French Science in Germany

[Academie des Sciences] [Steinwehr, Wolf Balthasar Adolph; Hrsg.]. Der Königl. Akademie der Wissenschaften in Paris Physische Abhandlungen, Aus dem Französischen übersetzt von Wolf Balth. Adolph von Steinwehr, ... der Historie und Alterthümer, ... P. P. O. zu Frankfurth a. d. Oder Erster Theil, welcher die Jahre 1692. 1693. 1699 - 1702 in sich hält [bis] Dreyzehnter Theil, welcher die Jahre 1739, 1740 und 1741 in sich hält [= Memoires et Histoire de l'Académie Royale des Sciences; dt.]. 13 Vols.- Breslau : Korn, 1748 – 1759. \$ 5000.-

Sehr selten komplett; eine Auswahl der physikalischen Arbeiten der Pariser Akademie der Wissenschaften auf deutsch.- Kirchner 3201: Die Bände umfassen den Zeitraum von 1692-93 bis 1739/48. Wolf Balthasar Adolf von Steinwehr (1704 Dziedzice b. Soldin/ Neumark - 1771 Frankfurt/ Oder), der Herausgeber und Übersetzer, war ein deutscher Historiker u. Rechtswissenschaftler. 1738 wurde er außerordentlicher Professor der Philosophie an der Universität Göttingen und übernahm dort 1739 als Gründer die Redaktion der gelehrten Zeitung. Nachdem er im September 1741 Christiana Mariana von Ziegler geheiratet hatte, wechselte er am 21. November 1741 an die Universität Frankfurt (Oder) als ordentlicher Professor d. Geschichte und des Natur- sowie Völkerrechts; er wurde königlich preußischer Hofrat u. Universitätsbibliothekar, auch später Professor der Antiquitäten.- Inhalt:

IV: Reaumur [Seetiere], de La Hire, Cassini [Verfinsternung Venus], Maraldi, Saulmon[Körper, die in einen Wirbel getaucht sind], Delisle, Louville [Anbringung Mikrometer], Geoffrey [Gummilack] et al. VIII: Sloane [Knochen des Elefanten], Maraldi [Jupitertrabanten], Mairan [Bewegung des Mondes], Delisle [Bewegung Fixsterne], Cassini [Theorie Cometen], Reaumur [Motten], Moliere [Bewegung Wirbel], Louville [Theorie der veränderten Bewegungen], pitot [Bewegungen Wassers], et al. IX: Reaumur [Thermometer], Du Fay [Magnet], Cassini [Luisiana, Cometen], Maraldi, Mairan [Nordlichter pp. 248-537], Grandjean, Buache, Condamine, Godin, Pitot. X: DuFay [sechs Abhandl. zur Electricität]; Cassini [Barometermessungen, Sonnenfinsternis, Karte von Frank-reich], Reaumur, Mairan, Jussieu, Godin, Condamine [Beschreibung eines Instruments], Manfredi [Figur der Erde], Moliere [Geschwindigkeit der Planeten], Pitot, et al. XI: Cassini [Messung der Weiten auf der Erde], duFay [Versuche v. d. Wirkungen zwo flüssiger Materien], Grandjean Foucy, Mairan, Maraldi, Pitot, du Hamel [Purpurnuschel], Bouguer [Nachtgleiche], Clairaut, Condamine, et al. Eine Tafel mit kl. Fehlstelle. XII: Reaumur [thermometrische Beobachtungen], le Monnier [Polhöhe Paris, Mondverfinsternung], Godin, Grandjean Fouchy, Cassini, Maupertuis [Figur der Erde], Pitot, Mairan et al. XIII: works by Reaumur, Maraldi, Cassini [Sonnen- bzw. Mondfinsternis, Uhrenpendikels], Bouguer [Strahlenbrechung], Clairaut [Fixsternparallaxe], le Monnier, Godin, Nollet [Instrumenten zu den Versuchen mit Luft m. Taf.; Luftpumpe m. Taf.], Buffon [Stärke des Holzes] 8°. [195 x 120 mm] [15] Bl., 848 pp., [1] Bl., 16 [i.e. 19] Bl. Kupferst.; [4] Bl., 806 pp., 9 Bl. Kupferst.; [5] Bl., 902 pp., 20 Kupferst.; [8] Bl., 862 pp., [1], 16 Kupferst.; [4] Bl., 756 pp., 32 Kupferst.; [4] Bl., 679 pp., 23 Bl. Kupferst.; [4] Bl., 775 pp., 18 Kupferst.; [4] Bl., 808 pp., 28 Kupferst.; [4] Bl., 839 pp., [1], 31 Kupferst.; [4] Bl., 664 pp., 17 Kupferst.; [4] Bl., 653 pp., [3], 12 Bl. Kupferst.; [4] Bl., 615 pp., [1], mit [4] Bl. Tabellen; [4] Bl., 695 pp., [1], 22 Kupferst. Contemporary Papercard-boards [1-7] and contemporary calf [8-13]. Rubbed and soiled, used, inside with browning and spotting, else quite good set in two bindings.

Natural against Artificial System

Adanson, Michel. Familles des plantes. 2 Vols.- Paris: Vincent, 1763, 8°. [2], 325 pp., [1], 189 pp., [1] pp., 1 fold. plate, [1], 24 pp., [2, privilège], 640 pp. Contemporary calf, red edges, marbled end-papers, fine copy. \$ 4900.-

“The Familles des plantes presented for the first time a logical plea for an attempt at a natural classification on the basis of inductive research, free from the aporistic harness of essences and priorities, but typically eighteenth century: open-minded and rational. Adanson’s view that a plant taxonomist must have a personal knowledge of a tropical flora marked a difference with his great contemporary Linnaeus. Previously taxonomists had worked mainly with western European and Mediterranean plants; the world, however, was much wider and had much that was new in store for the inquisitive naturalist who would go out and see for himself. The plant taxonomist should conduct experiments on hybridization and also study the variability of the offspring of plants from the wild in cultivation. The constancy of the species was not an item of faith, ... New taxa might arise through hybridization and mutation. A thorough knowledge of the plant world would be reached not by diagnostic systems which are merely artificial keys, but by a study of all features of the plants in all phases of their development and by a careful analysis and comparison of their detailed descriptions.” [Stafleu, 311] Unlike his contemporary Linnaeus, Michel Adanson did not have the benefit of being in the limelight of the history of botany almost from the moment of his first publication. Adanson turned classification into systematics. He shared Buffon’s ideas on the origin of species by hybridization; in addition, he was the first to speak of the role of hereditary mutations in the process of speciation.”

Rare original edition. "The distinction of having first analysed and explained the theoretical foundation of natural classification, and, what was even more important, of defining the practical method to be used in seeking such classification, belongs without question to Michel Adanson. His "Familles des plantes" (1763) was a work of historical significance, which gave clarity and coherence to the ideas of the growing number of proponents of the "Natural method". It became the main formative influence in developing natural classification in France, and in ensuring its success" (Morton "History of botanical science, pp. 310/311); DSB I pp. 58/59

Michel Adanson (1727 – 1806) was a French naturalist of Scottish descent. His family moved to Paris on 1730. After leaving the College Sainte Barbe he was employed in the cabinets of R. A. F. Reaumur and Bernard de Jussieu, as well as in the Jardin des Plantes. At the end of 1748 he left France on an exploring expedition to Senegal. He remained there for five years, collecting and describing numerous animals and plants. He also collected specimens of every object of commerce, delineated maps of the country, made systematic meteorological and astro-nomical observations, and prepared grammars and dictionaries of the languages spoken on the banks of the Sene-gal. After his return to Paris in 1754 he made use of a small portion of the materials he had collected in his *Histoire naturelle du Senegal* (1757). This work has a special interest from the essay on shells, printed at the end of it, where Adanson proposed his universal method, a system of classification distinct from those of Buffon and Linnaeus. He founded his classification of all organized beings on the consideration of each individual organ. As each organ gave birth to new relations, so he established a corresponding number of arbitrary arrangements. Those beings possessing the greatest number of similar organs were referred to one great division, and the relationship was considered more remote in proportion to the dissimilarity of organs. In 1763 he published his *Familles naturelles des plantes*. In this work he developed the principle of arrangement above mentioned, which, in its adherence to natural botanical relations, was based on the system of Joseph Pitton de Tournefort, and had been anticipated to some extent nearly a century before by John Ray. The success of this work was hindered by its innovations in the use of terms, which were ridiculed by the defenders of the popular sexual system of Linnaeus; but it did much to open the way for the establishment, by means principally of Antoine Laurent de Jussieu's *Genera Plantarum* (1789), of the natural method of the classification of plants.

Manuscript copy of Bach’s Partita

Bach, Johann Sebastian. Clavier-Übung bestehend in Praeludien, Allemanden, Couranten, Sarabanden, Gigue [Manuscript in contemporary hand, brown ink on paper with watermark; dating around 1730 to 1760; Thüringen] [o. J.] 9 leaves [335 x 195 mm]. No Wrappers, or binding, last page with paper flaw, restored in former time. \$ 16000.-

Contemporary manuscript copy of Johann Sebastian Bach’s Partita II, BWV 826 after the first edition of 1727, and not after the edition of 1731. The title of Bach mentioned on the first page was used by Johann Sebastian

Bach until the death of Leopold, Prince of Anhalt-Köthen in 1728. The watermark indicate an origin between 1730 and 1760 in Thuringen. Bach's Partitas are known for its intellectual depth, technical command, and artistic beauty. In Sotheby's sale of 9 June 2010 there was an 18th century manuscript of the French Suite no. 5 BWV 816, 11 pages, which sold for £ 8000. This was probably a later manuscript (around 1785), but before publication of the score which was first printed in 1801-03. In May 2008 Sotheby's sold a mid-18th century manuscript of BWV 599 - 644, 24 pages, for £ 20,000. The last original handwriting piece of Bach was sold for more than 100.000 GBP.

Zeitgenössische Abschrift in brauner Tinte von Joh. Sebastian Bach's Partita II c-Moll BWV 826, wohl nach dem Erstdruck von 1727, der angezeigt wurde unter "NOUVELLEN" in den "Leipzig Post-Zeitungen" am 19.9. 1727; Wortlaut des Titels: Clavir Übung / bestehend in / Praeludien, Allemanden, Couranten, Sarabanden, Giugen, / Menuetten, und andern Galanterien; / Denen Liebhabern zur Gemüths Ergoetzung verfertigt / von / Johann Sebastian Bach / Hochfürstl. Anhalt-Cöthnischen würcklichen Capellmeistern / und / Directore Chori Musici Lipsiensis. / Partita II / In Verlegung des Autoris. / 1727". Die Abschrift dürfte nach diesem Druck erfolgt sein und nicht nach der gedruckten Ausgabe von 1731. Bei dem Wasserzeichen handelt es sich um das sogenannte Sächsische Gesamtwappen, das im 17. und frühen 18. Jahrhundert von den Herzogtümern des ernestinischen Sachsens verwendet wurde. Die Handschrift gehört also in das heutige Thüringen. Die Modifikationen im Titel der Abschrift zielen auf eine Vereinfachung; derartige Eingriffe sind bei Abschriften nach Drucken häufig zu finden. [Auskunft Dr. Peter Wollny, Bach Archiv]. Damit kann man die Handschrift auf 1730 bis 1760 datieren. Der Titel weißt Bach noch als Anhalt.-Cöthenischen Capell-Meister aus [bis 1730].- RISM weist nur vier Abschriften nach; näheres: NBA V/1, S. 11 Sonstige Literatur: Krause II, S. 86, Nr. 180; Dok II, 224; W. Neumann, in: FS Vetter, Leipzig 1969, S. 165ff.

[Baier, Johann]. Oryktographia Norica, sive rerum fossilium et ad minerale regnum pertinentium, in territorio Norimbergensi ejusque vicinia observatarum succincta descriptio.-Nuremberg: Wolfgangi Michahellis, 1708. 4°. [193 x 165 mm]. Additional engraved allegorical title, 6 folding engraved plates of fossils and shells. Early paper covered boards. \$ 2400.-

Rare early work on fossils and shells. Baier's monograph on invertebrate fossils in the area around Nuremberg is "one of the best works of the time" [Zittel 21]. Schuh concurs, noting that it is a "classic work on the fossils and some minerals found in the region surrounding the city of Nürnberg in Germany . [This work] was a new, systematic attempt to organize the natural mineral objects he found ... into a coherent classification ... he laid the foundation for the investigation of Jurassic fauna and of scientific palaeontology in general and help[ed] disprove the notion that fossils were simple jests of nature. He clearly indicates that these fossils were created in the single act of the Deluge, which he considered the only great change since the Creation." BM (NH) I, 85; Hoover, 75; Nissen ZBI 189; Ward & Carozzi, 97; Schuh 269.

The frontispiece depicts a beach with putti presenting Cybele with baskets of ammonites, fossil echinoderms, belemnites, etc., while Neptune rides on a shell on the sea surrounded by naiads bearing baskets of shells; i.e. the affinities of the living and fossil forms. This and the six plates (which figure some 300 fossils) are the work of J. G. Puschner.

Johann Georg Puschner d. Ä. (1680-1749), Kupferstecher und Mitarbeiter an den Doppelmayr- Globen. Er wurde ca. 1705 als Kupferstecher ins Meisterbuch der Stadt Nürnberg eingeschrieben. Er hatte seine Werkstatt in der Lottergasse, das ist die heutige Ottostraße. Bekannt wurde er vor allem durch seine Ansichten der Universität Altdorf wie auch durch seine Schilderungen des studentischen Lebens in Altdorf. Johann Gabriel Doppelmayr (1677-1750) gab ab 1728 Erd- und Himmelsgloben heraus, deren Kartenbild von Johann Georg Puschner gestochen wurde. Dabei ist allerdings nicht restlos geklärt, ob damit der Vater oder der gleichnamige Sohn gemeint ist. Die Pariser Galerie Kugel besitzt einen mit Goldbronze überzogenen Erdglobus von 1730. Er wurde nur von Puschner signiert, nicht von Doppelmayr. Er ist aber vom Kartenbild her mit dem Doppelmayr-Globus weitgehend identisch. 1722 hielt sich Samuel Mikoviny (1700-1750) für sechs Monate in Nürnberg auf, um bei Puschner das Kupferstechen zu lernen. Mikoviny wurde einer der wichtigsten Kartografen Ungarns.- Grieb, Nürnberger Künstlerlexikon. III, 1184f.; Kugel. Spheres. The Art of the Celestial Mechanic. (2002). 80-83.

Early palaeontology journal: evolution before Darwin

Ballenstedt, Johann Georg Justus [ed.]. Archiv für die neuesten Entdeckungen aus der Urwelt. Ein Journal in zwangsfreien Heften in Gesellschaft von mehreren Gelehrten herausgegeben. Erster Band, Heft 1.-2. [bis Sechster Band, Heft 1.-2. [12 Hefte; all publ.]- Quedlinburg u. Leipzig: bei Gottfried Basse, 1819-1824. 8°. 217 pp., [1], [6]; [2], 221-440 pp., [2]

with one plate showing a Megatherium from Paraguay; 208 pp., 209-426 pp., [6]; 221 pp., [3]; 223-419, [2], [9] with one plate showing Jadelot' skull of an fossil animal; 212 pp., [12]; 211-408 pp., [2]; 205 pp., [3], 209-414 pp., [2]; 198 pp., [2], 199-411 pp., [3]. Contemporary marbled boards, red label, red edges, rubbed and soiled, paper label at spine, title stamped, little browning. One spine crudely repaired, else good copy. \$ 3400.-

The earliest journal devoted only to the study of paleontological times; published by a lesser known german pre-evolutionist, an architect and preacher in Thüringen. Other contributors were Johann Friedrich Krüger, Dehne, Niemeier, Hansemann et al. - interesting for the reception of "higher" science through the amateur scientist. The content is divided in archaeological studies, geological and natural history studies & historical- antiquarian studies: it begins with a study on the pre-adamian men with discussion of the findings near Brunswig [Thiede, Offleben], discussing Elephants primigenius, and the flood theory, age of the earth, first men in America, meteors, a list of the animals of the former world yet known [after Hausmann], but also on the zodiac of Tentyra and his age. The second part includes a translation by Dehne of Faug[j]as St. Fond. Ueber den Megalonyx des Herrn Jefferson, oder das unbekante Their von Paraguay, nach Cuvier Megatherium genannt [with plate], furtheron are article on minor excavations, like Der Elephant bei Burg-Tonna, and also some evolutionary ideas: Die fortdauernde Schöpfung; oder ist eine fortwährende Erzeugung neuer Organismen möglich ? The second volumes and later volumes contained discussions on Ursus Spelaeus, on early elephant, fossilized woods, on the geology of Australia, on woods in former time and on early men [specimens of Pabstorf], Desmarest on fossilized "crocodiles" and "turtles", fossils of the Elm, origin of early men, on amber, Brogniart on fossilized plants, on caves with bones, Cuvier on Anthracotherium, Cuvier on Cetaceen, on early lizards ("eidechse"), Parkinson on geological times, book reviews and a lot more.

Erste Ausgabe dieser frühen „paläontologischen“ Zeitschrift mit interessanten archäologischen, geologischen, antiquarischen arbeiten zur Urwelt. Johann Georg Justus Ballenstedt (1756-1840), Pfarrer in Schoppau, 1806 in Dobbeln, 1815 Prediger zu Pabstdorf bei Quedlinburg. „Angeregt sowohl durch die in der Nähe seiner Heimat befindlichen Salinen- und Braunkohlenwerke, wie auch durch die rationalistische Richtung seines Lehrers Jerusalem, widmete er sich geologischen und paläontologischen Studien und bemühte sich in zahlreichen Schriften, die biblischen Schöpfungsgeschichte naturwissenschaftlich zu erklären. Ballenstedt ist neben anderen deutschen Autoren einer der frühesten Vertreter der Abstammungslehre, in die auch der Mensch einbezogen wird. Gedankengänge wie die von Ballenstedt sind für die damalige Zeit geradezu revolutionär. Gegenüber der Naturphilosophie und idealistischen Morphologie hat Ballenstedt das Verdienst, seine Anschauungen real-historisch, im Sinne der Denkweise der heutigen Erdgeschichte begründet zu haben. Doch ist seine empirische Basis viel zu schmal, auch kaum originell, so daß er zwar zeitgenössischen Erfolg ernten, aber mit seinen Anschauungen noch viel weniger als die großen französischen Deszendenztheoretiker und Gegner Cuvier's sich in der Wissenschaft durchsetzen konnte. Sein Werk verfiel in der Folgezeit der Vergessenheit anheim und wurde erst in den 40er Jahren unseres Jahrhunderts wieder gebührend gewürdigt (u.a. von O. H. Schindewolf).“- NDB I, 560; Pogg. I, 94/95. ADB II, 22; There is also a dutch translation of some titles. KVK: some copies; COPAC: BL London; NL Scotland; NHM London; OCLC: American Museum Natural hist., Stanford, Cornell, Doheny Library, Chicago, Harvard [Mayr Libr.], Saint Louis.

Rare star map

Bartak, Johann Baptist. Gemeinfaßliche Anleitung zur leichten Kenntniß des gestirnten Himmels mittelst einer beygefügtten großen Sternkarte... mit einer Vorrede von J. J. Littrow. Wien: J. G. Heubner, 1827. 8°. XII, 52 pp. [Textbd.]; eine mehrfach gefaltete gestoch. Himmelskarte mit schöner prachtvoller Randbordüre und Sternzeichen, gestochen von Aigner und Duschet [585 x 775 mm]. Pappbd., alles in Original- Pappschuber mit ge-stoch. Titelschild auf Vorderdeckel, Schuber ge- u. entstempelt, ebenso Text am Titel. Leicht stockfleckig, doch Karte in gutem Zustand. \$ 3400.-

Very rare star map of the northern hemisphere with introductory pamphlet to accompany the works of Littrow. Sehr seltene Sternkarte, einzige Ausgabe. Zum Verfasser gibt nur das Vorwort an: "Herr Bartak, einer der ausgezeichnetsten meiner früheren Zuhörer, dessen Eifer und Geschicklichkeit zu schönen Hoffnungen berechtigeten,... Er hat sich dabey die viel kleinere, und nur wenig unter uns bekannte Karte des k. dän. Admirals von Löwenörn, die auch nicht in unsern Buchhandel gekommen ist, zum Muster genommen, aber die Gestirne aus Autopsie nach dem Totaleindrucke, welchen der nächtliche Himmel dem unbewaffneten Auge gewährt, ausgewählt, und sie nach Piazzi's Catalog in einer sehr schicklichen Projection aufgetragen." - Kayser I, 150; nicht

in Pogg., nicht Houzeau- Lancaster. GBV mit zwei Nachweisen [Oldenburg; Halle], zudem Dresden u. Senckenberg./ FfM; not in COPAC, OCLC: Linda Hall, Brigham Young. There was an cech. Edition in 1836.

On telescopes

Boscovich, Roger Joseph. Abhandlung von den verbesserten Dioptrischen Fernröhren, aus den Sammlungen des Instituts zu Bologna; sammt einem Anhang des Uebersetzers C[arl]. S[cherffer]. S[ocietatis]. J[esu]. [= De lentibus et telescopiis dioptricis dissertatio; dt.] Wien, Trattner, 1765 8°. 183 pp. Mit 2 mehrf. gefalt. Kupfertafeln. Halblederbd. neuerer Zt m. Rückenschild. Sauber u. frisch. \$ 2000.-

Erste deutsche Ausgabe, nach der Originalausgabe von 1755. Karl Scherffer's Anhang enthält u. a. auch Auszüge aus Briefen Boscovichs.- Honeyman 426: "A translation with considerable additions by the translator". Very rare first german edition. First published in Rome 1755 it is a tract on the construction of lenses for telescopes, with instructions how to manufacture dioptric instruments with the use of two different lenses. Boscovich was a skilled experimentalist beyond being an accomplished mathematician. His aim in this work was providing guidelines for establishing the optimal refraction of lenses when viewing celestial bodies. He discusses the use of a new model of micrometer recently invented by Dollond in different sorts of telescopes, demonstrates the impossibility to reach a significant improvement of the magnification by use of a catoptric telescope with one lens. Ruggero Boscovich (1711 - 1787) is renowned as the author of the "Philosophiae naturalis theoria". The translator Carl Scherffer (1716-1783), who added considerable notes, was a Jesuit, supervisor of the Observatory at Graz, later Prof. of Mathematics in Vienna; he introduced Newton's Principia at the University of Vienna. His textbook on physics was used in English universities.- Holzmann-B. I, 7345. Pogg. II, 791 [unter Scherffer]; de Backer-S. I, 1838, 55; Giese 673; Whyte 218; DSB II, 326-332; Roberts/ Trent 45; Riccardi I/I, 178,45 [ital. ed.]. Zarko Dadic. The role of the Karl Scherffer in the acceptance and promotion of Boskovic's scientific ideas; in: Proceedings of the International Symposium on Ruder Boskovic, Dubrovnik, 5th-7th Oct., 1987.- Zagreb, 1991. pp. 153-160.- KVK: Freiberg, Göttingen, Rostock, Jena, Hamburg, Erfurt, Weimar Anna Amalia [Verlust ?].

Billings, John Shaw; Matthews, Washington, On composite photography as applied to craniology, by J. S. Billings [and] on measuring the cubic capacity of skulls. by Washington Matthews [bound in with]: On a new craniophore for use in making composite photographs of skulls by J. S. Billings and Washington Matthews; in: *Memoirs of the National Academy of Sciences.*; volume III.; part 2 [13th and 14th Memoirs].- Washington: Government Printing Office, 1886. 4° [30 cm] pp. 103-116 [read April 22, 1885] with 20 lithographic plates; pp. 117-119 [read November 12, 1885] with 4 lithographic plates. EUR 600.-

Plates 1-8 which demonstrate the operation of the craniophore are divided between the 13th and 14th issues of the *Memoirs*. Eleven composite photographs of skulls appear as a group in the 13th *Memoir* but are not numbered. Plates which depict the measuring of skulls are numbered 1-5 and appear only in the 13th *Memoir*.

"This work will be the only publication in this bibliography which is not illustrated by photographic reproduction. The plates to Billings' and Matthews' articles are actually lithographs [but called photographs ?], but are so skilfully rendered that they are often confused with heliotype prints. The dealer who sold me the book was quite insistent that the plates were actual photographs. To my eye however, it appears as though the images were projected onto limestone blocks somehow so that the artist would only have to color in the images with his grease pencil. The motivation was to produce photographic images in color, but it would be another 15 years before there was devised a process to effectively print with color a black and white photograph by shooting with chromatic filters. There exist hundreds of 19th century medical books that were illustrated with drawings derived from photographs but none so intimately or so elegantly as with this work. Moreover, the subject of the plates is photographic, specifically the use of composite photography for anthropometrics, warranting its inclusion in this bibliography." [Rowley. Bibliography of Medical Photographic Incunabula. forthcoming]

Chinese traditional medicine coming to Europe

Boym, Mikal. [Andreas Cleyer, Philippe Coplet; eds.] Clavis medica ad Chinarum Doctrinam de Pul-sibus, authore R. P. Michaele Boymo, e Soc. Jesu, & in China Missionario, hujus operas ultra viginti annos jam sepultit fragmenta, ... in lucem Europaeam produxit Cl. DN. Andreas Cleyerus, ... a quo nunc demum mittitur totius operis exemplar, e China recens

allatum, & a mendis purgatum, procura-tore R. P. Philippo Copletio,... - [Nürnberg], anno 1686. 4° [200 x 155 mm] 144 pp., with 6 copp. plates & one text woodcut. [= A-A4, B-S4] Modern halfvellum in period style, new endpapers, with old Ex Libris on inner front cover. Browning throughout, else good copy. sold

Complete edition of Boym's compilation of the Chinese art of healing [pulse diagnosis], first published in shorter form by Andreas Cleyer in 1682. The text is based on Wang Shuhe maijue (Wang shuhe on pulse), Maijing (Canon of the pulse), Nanjing (Canon of difficult issues) and Huangdi neijing (Canon of the Yellow Emperor). The manuscripts were given to Philippe Couplet (1623-1692) who had contacts to dutch in Batavia. Michał Piotr Boym (c. 1612–1659) was a Polish scientist, explorer and a Jesuit missionary to China. He is notable as one of the first westerners to travel within the Chinese mainland, and the author of numerous works on Asian fauna, flora and geography. Michał Boym was born in Lwów to a well-off family of distant Hungarian ancestry. In 1631, Boym joined the Jesuits, and was ordained a priest. In 1643, after almost a decade of intensive studies, Boym embarked on a voyage to Eastern Asia with a group of nine other priests and clerics on a voyage to Portuguese Goa, and then Macau. He was active in China for years. Boym is best remembered for his works describing the flora, fauna, history, traditions and customs of the countries he travelled through. During his first trip to China he wrote a short work on the plants and animals dwelling in Mozambique. The work was later sent to Rome, but was never printed. During his return trip he prepared a large collection of maps of mainland China and South-East Asia. He planned to expand it to nine chapters describing China, its customs and political system, as well as Chinese science and inventions. The merit of Boym's maps was that they were the first European maps to properly represent Korea as a peninsula rather than an island. They also took notice of the correct positions of many Chinese cities previously unknown to the westerners or known only by the semi-fabulous descriptions of Marco Polo. Boym also marked the Great Wall and the Gobi Desert. The best known of Boym's works is the *Flora Sinensis* ("Chinese Flora"), published in Vienna in 1656. The book was the first description of an ecosystem of the Far East published in Europe. Boym underlined the medicinal properties of the Chinese plants. Athanasius Kircher heavily drew on the *Flora Sinensis* for the chapters on the plants and animals of China in his celebrated *China Illustrata* (1667). In his other works, such as *Specimen medicinae Sinicae* ("Chinese medicinal plants") and *Clavis medica ad Chinarum doctrinam de pulsibus* ("Key to the Medical Doctrine of the Chinese on the Pulse") he described the Chinese traditional medicine and introduced several methods of healing and diagnostics previously unknown in Europe, particularly measurement of the pulse.

The editor: Andreas Cleyer (1634-1698), Botaniker, Japanforscher, nach eigener Aussage kam er als Soldat nach Niederländisch Indien. Beim Eintritt in den Dienst der Niederländischen Ostindien Kompanie im Sommer 1666 war er Lizentiat der Medizin. Er übernahm das Rektorat der Lateinschule in Batavia auf Java, wurde aber schon im Mai 1667 Vorsteher der Apotheke in der Festung, 1671 zugleich Fähnrich in der Kompanie der Saalwärter im Lazarett und 1676 dort Leiter der Apotheke. Über verschiedene Ehrenämter stieg er 1680 zum Rat der Justiz in der obersten Landesbehörde auf. Im April 1682 erhielt Cleyer, wohl als erster Deutscher, den wichtigen, jährlich wechselnden Posten des Vorstehers der holländischen Faktorei in Japan im Range eines Oberkaufmanns. In Batavia konnte er sich aus seinem Gewinn das größte Haus bauen und lebte in angesehener Stellung. Im November 1696 schied er aus Altersgründen freiwillig aus dem Rat der Justiz aus. Schon früh hatte Cleyer in Batavia einen botanischen Garten angelegt und Kräutersammler in andere holländische Besitzungen geschickt. Georg Meister aus Sondershausen, der in seinem Dienst stand und später Hofgärtner in Dresden wurde, schildert ihn als „einen trefflichen curieusen Liebhaber der Gärtnerei, rarer Bäume und der Arznei dienender Kräuter“. Cleyer förderte die Bearbeitung der maleiischen Pflanzen durch seinen Landsmann G. E. Rumpf und stand mit vielen Naturwissenschaftlern in Europa in Briefwechsel. Die Beziehungen zu China verschafften ihm Kenntnisse von der chinesischen Pulslehre, die er mit Hilfe von Fragmenten einer Schrift des Jesuiten-Missionars Michael Boym († 1659 in China) ausarbeitete und 1682 in Frankfurt/Main drucken ließ und später vollständig herausgab. Vor allem an Christian Mentzel in Berlin, den Leibarzt des Großen Kurfürsten und Betreuer von dessen chinesischer Büchersammlung, schickte Cleyer seine Berichte und Zeichnungen von der Natur- und Heilkunde Ost- und Südasiens. Es waren Abhandlungen über den Kampferbaum, die Perlfischerei, die Kultur der Tee- und der Indigopflanze und die Abweichung der Magnetnadel, ferner Darstellungen der asiatischen Lepra, Abbildungen von Eingeborenen, von Tieren, von Himmelserscheinungen und vor allem von Pflanzen. Mentzel veröffentlichte fortlaufend Auszüge aus Cleyers Briefen (ins Lateinische übertragen und zum Teil kommentiert) mit einigen in Kupfer gestochenen Bildern in den Miscellanea der Leopoldina, deren Mitglied Cleyer seit 1678 war. Während seines zweimaligen Aufenthalts in Japan setzte Cleyer seine Forschungen fort. Auf Mentzels Anregung kaufte Cleyer eine japanische Handschrift mit mehreren hundert farbigen Abbildungen von Pflanzen und Vögeln und ließ außerdem viele Pflanzen von einem europäischen Maler zeichnen.

Sexuality of plants before Linnaeus – a letter to Leibniz

Burckhard, Johann Heinrich. Epistola ad illustrem et excellentissimum virum dominum Godofredum Guilielmum Leibnitium [Gottfried Wilhelm Leibniz] Polyhistorem Consummatissimum Qua Characterem Plantarum Naturalem Nec A Radicibus, Nec Ab Aliis Plantarum Partibus Minus Essentialibus, Pluribus Discriminandi Capitibus Constitutis, Peti Posse Ostendit Simulque In Comparationem Plantarum Quam Partes Earum Genitales Suppeditant Paucis Inquirat Jo. Henr. Burckhard Med. Doct., cum Lavrentii Heisteri [Lorenz Heister] Praefatione ,... . Helmstedt: ex Officina Weygandiana, 1750. 8° [186 x 120 mm] 159 pp., [1], [16, Index] with 2 coloured plates. Contemporary half calf, marbled boards, hinges cracked. Uncut copy, else good. \$ 2000.-

Rare edition, first published in 1702 [32 pp.], this second edition enlarged with a preface by Lorenz Heister [pp. 1-98]. The German doctor Johann Heinrich Burckhard at Wolfenbüttel proposed in 1702 in a letter to G. W. Leibniz that the number and arrangement of the stamens and the pistils be used as the basis of an artificial system of plants. Linnaeus did not know about Burckhard's ideas. The preface is by Lorenz Heister (1683 - 1758), who in 1720 was appointed professor of anatomy and surgery at Helmstädt, where his teaching duties changed several times. In 1730 he was charged with the teaching of theoretical medicine and botany, and in 1740, upon the death of Brandanus Meibom (1678-1740), with the teaching of practical medicine and botany. He remained in Helmstädt for the rest of his life. His botanical garden in Helmstädt soon became one of the most beautiful in Germany. In 1741 Heister published a study on Linné's new sexual system, where he considers Linnæus's sexual method totally useless, because it would be too difficult to discern and count the stamens. Not only the cryptogams but also a lot of other plants have genital organs which cannot be discerned by the naked eye and often the number of the stamens is not constant. Some of his criticism is here again published.- Johann Heinrich Burckhardt (1676 Sulzbach - 1738 Wolfenbüttel), Botaniker. Burckhardt studierte Medizin (1700 Dr. med.) und wurde Stadtphysikus zu Wolfenbüttel. Er hinterließ unter anderem eine große Bibliothek und ein vortreffliches Münzkabinett. In einem Brief an Leibniz (1702) streifte er den Gedanken, auf den Sexualorganen der Pflanzen ein System zu errichten. Man kann ihn und Leibniz vielleicht als Vorläufer Linnés auffassen, wenn auch bis zu einem brauchbaren System noch ein weiter Schritt zu gehen war. Burckhardt selber ging ihn nicht. Zudem war damals die Sexualität der Pflanzen durchaus nicht bewiesen. Linnés Autorschaft bleibt hierdurch unberührt.- NDB III,40; Pritzel 1378; not in Stafleu/Cowan; OCLC: Academy of National Science; New York Botanical; Kenneth Spencer Research; Univ. Minnesota.

Astronomy in Colonial India

Campigneulles, V. de. Observations taken at Dumraon, Behar, India during the eclipse of the 22nd January 1898, by a party of Jesuit fathers of the western Bengal mission. By Rev. V. De Campigneulles. London; New York; Bombay: Longmans, Green, and co, 1899. 4° [260 x 190 mm] X, 104 pp. with 14 pl. (1 fold.), mainly after photographs. Original pebbled cloth. Spotting throughout. Front-fly with a hand-drawing of the eclipse [by the author?], and with printed dedication. Ownership inscription: C. W. Hodson, 1899. \$ 1800.-

First edition, uncommon. Report of the total sun eclipse of 1898 under the leadership of the Jesuit Campigneulles. He reported that the eclipse lasted 99 seconds, recorded solar prominences, and inner and outer corona. The Jesuit Fathers of Bengal, who directed two important educational establishments and possessed a Solar Observatory, organized the study and research of the eclipse to solve some problems of solar physics under the leadership of Rev. C. De Clippel, S.J., Director of the St. Xavier's Solar Observatory. The observatory was established when Tacchini observed the transit of the Venus in 1874. The party had with them two telescopes, for direct ocular observations and five photographic apparatus; three for photographs of the corona, and two for spectroscopic photography. One of the latter was a prismatic camera, the other had a concave two-inch grating. Moreover, a time-registering apparatus, built on the principle of Father Secchi's Meteorograph, recorded with great exactitude the exact moment of each exposure. The usual fittings for meteorological and photometric records, sketches of the corona and star observations were exclusive to their own means.- Lit.: Biswas in: Indian J. History Science 29 (1994), 77-88.

Leprosy in India

Carter, Henry Vandyke. On leprosy and elephantiasis with plates. By H. Vandyke Carter, M.D. Lond., H.M. Indian Medical Service. Published under Sanction of the Secretary of State for India. London, G. E. Eyre and W. Spottiswoode, 1874. Folio. V, 213, XXXVIII pp., 12 (1 doppelblattgroße) Tafeln in Chromolithographie mit je 1 Blatt Tafelerklärung, 1 getönte lith. Tafel m. 1 Blatt Tafelerklärung, 2 lith. Tafeln mit je 1 Blatt Tafelerkl., 2 teilkol. lith. Karten, 1 gefalt. teilkol. lith. Plan, 1 Foto-Tafel. Halblederband der Zeit (berieben). \$ 10000,-

Of great rarity. On Leprosy and Elephantiasis in India, no copy in continental european libraries. Eine der größten Raritäten über Lepra und Elephantiasis weltweit, von besonderer Bedeutung für die Medizin- und Dermatologiegeschichte Indiens, dem Karlsruher Virtuellen Katalog zufolge kein Exemplar auf dem europäischen Kontinent, selbst die British Library verfügt nur über eine Microfiche-Ausgabe und auch in der National Library of Medicine nicht vorhanden. Kein Exemplar im Handel nachweisbar.- Indian Journal of Dermatology, Venereology, and Leprology, Vol. 77, No. 1, January-February, 2011, pp. 101-103; Richter, Geschichte der Dermatologie 248 (erwähnt ein anderes Werk von 1874, das er nicht gesehen hat), Pagel 309/310 (ohne die Publikationen zu erwähnen); Olpp, Hervorragende Tropenärzte 66/67; Hirsch/Hübötter I, 845 und Ergänzungsband 161 (Publikationen nicht erwähnt); nicht bei Goldschmid und Ehring. Carter (1831-1897), war Deputy Surgeon-General der indischen Armee in Bombay, studierte in London, „und war ein so geschickter Zeichner, dass ihm die Abbildungen zu Gray's Anatomie übertragen wurden“ (Pagel). Dieses Werk Grays rühmt Richard Eimas, der Verfasser von „Heirs of Hippocrates“ wie folgt: "This lasting and monumental work, produced by a young man who dies young, must be compared to the Fabrica of Vesalius, who produced his great work before the age of thirty years" (Heirs to Hippocrates 1914). „1858 trat Carter als Assistent Surgeon in den Bombay-Dienst, in welchem er allmählich bis zur oben erwähnten Stellung avancierte. Von 1858 bis 63 war er Prof. der Anat. und Physiologie beim Grant Med. Coll., auch Assist. Surgeon am Jamsetjee Jhejeebhoy Hosp., später Civilchirurg und Superintendent des Satara-Gefängnisses. Nach Europa beurlaubt, macht er daselbst und im Orient Studien über Lepra und andere endemische Krankheiten; diese Studien setzte er in Indien fort. 1876 erhielt er das wichtige Gocul- das Tejpal Hosp. in Bombay, wo er Hungertyphus und andere schwere Infektionskrankheiten zu bekämpfen hatte. 1877 wurde er Prinzipal des Grant Med. Coll. und 1. Physician des zuletzt genannten Hosp. Nach 2jähr. Urlaub 1884 hatte er noch bis 1888 diese Stellungen und die eines Präsidenten der Bombay Med. and Phys. und des Dekans der med. Fakultät der Univ. Bombay inne. C., der 4. Mai 1897 in London starb, hat durch vielfache Veröffentlichungen die Kenntnisse in der Pathologie der indischen Krankheiten erheblich bereichert“ (Pagel). Das hier vorliegende in vier Sektionen gegliederte Werk „On leprosy and elephantiasis“ beschreibt in Sektion I „The local characters of Leprosy“, in Sektion II „The General Characters of Leprosy. - Diagnosis“, in Sektion III „The Pathology of Leprosy“, in Sektion IV „The Prognosis and Treatment of Leprosy“. Die römisch paginierten Seiten am Schluß enthalten einen Appendix, dem eine „Note on Elephantiasis“ auf S. 213 vorangestellt ist.- Alle Tafeln bis auf Tafel 7 tragen den Vermerk „H. V. Carter, M.D. ad nat. del.“ Tafel 7 ist bezeichnet mit „from the life Bombay 1862 H.V.C.“ Von 1862 datieren die Tafeln 1, 2, 4-6, 9, 13 und 15, von 1873 Tafeln 3 und 8, undatiert sind die Nummern 10-12, Tafel 14 von 1858, Nr. 7 ist undatiert und „copied from Dr. Danielsen's Memoir on Anaesthetic leprosy“. Bereits 13 Jahre vor dem hier besprochenen Werk publiziert Carter „the first modern description of mycetoma of the foot“ (Garrison/Morton 4047), erschienen unter dem Titel „On a new and striking form of fungus disease, principally affecting the foot, and prevailing endemically in many parts of India“ (Carter's mycetoma) in: Trans. med. phys. Soc. Bombay (1860), 1861, n.s. 6, 104-42 (Garrison/Morton 4047). - Das hier vorliegende Werk „On leprosy and elephantiasis“ ist Garrison/Morton jedoch unbekannt.- Sehr gut erhalten. Titel mit Bibliotheksstempel Royal College of Surgeons in Ireland, Library.

Botany as Art

Corda, August Carl Joseph. Pracht - Flora Europäischer Schimmelbildungen.- Leipzig & Dresden: G. Fleischer, gedruckt von Tauchnitz, 1839. Folio. very good copy. folio. There are 25 color lithographs. \$ 4000.-

First Edition. A landmark work in mycology because of its use of microscopy - there is an excellent portion of the introduction given over to praising the new technology - to present the fine structures of various molds. The author was a Czech scientist who was a founding member of the botanical research institute in Prague. The author died at a young age in a ship accident in the Gulf of Mexico. Interestingly Möbius states that his

Prachtflora (offered here), '... ist nicht immer ganz naturgetreu' But he fails to elaborate. The edition was limited to 100 copies in German and 100 in French. August Carl Joseph Corda (1809–1849) was a Czech physician and mycologist, who died on an expedition to Texas. Corda's primary interest quickly drifted to the mycological collections which became the primary focus of his work. Corda is best known for his monumental 6 volume *Icones fungorum hucusque cognitorum*, published from 1837–1842, and his *Prachtflora europäischer Schimmelbildungen* published in 1839. Corda remains well known to mycologists, having described many important fungal genera, including *Stachybotrys*. Corda remained Curator at Prague Museum (Sternberg collection) until his death at sea, aged 39 or 40, while returning home from a collecting trip to Texas in 1849. August Karl Joseph Corda, österreichisch- ungarischer Botaniker, trieb schon als Handlungslehrling in Prag mit Vorliebe naturgeschichtliche Studien. Infolge seiner *Monographia Rhizospermarum et Hepaticarum* (Heft 1, Prag 1829) von Alexander von Humboldt nach Berlin gezogen, beschäftigte er sich hier mit botanischen, namentlich mikroskopischen, Untersuchungen und wurde 1834, auf Betreiben von Sternberg's, zum Kustos der zoologischen Abteilung des vaterländischen Museums nach Prag berufen. 1847 unternahm er eine Forschungsreise nach Texas. Auf See fand er bei der Rückreise im September 1849 seinen Tod. Corda war einer der ersten Botaniker, die fossile Pflanzen in Beziehung auf ihre anatomische Struktur genauer untersuchten. Er veröffentlichte mit hervorragenden Abbildungen ausgestattete und für die Kunde der Kryptogamen höchst bedeutende Prachtwerke

Colour theory after Aguillon

[anon.] Cursus Philosophicus. Tractatus de ortu et interitu, Tractatus de corpore, de anima, Figurae Euclidis. Latin handwritten manuscript by unknown hand, ink on paper.- [France, around 1620]. 202 leaves, written on both sides. Contemporary vellum. Papermark indicates the date. \$ 14000.-

Early manuscript commentary on the aristotelian “De ortu et interitu” and « De anima », but specifically on the senses and the theory of colours just published by Aguillon in ‘Opticorum libri sex’ of 1613. The author, much likely a professor in the South of France and widely read, cites all the relevant authors from Alhazen, Archimedes, Averroes, Cardano, Dandinus, della Porta, Proclus, Toletus, Witelo. At the end he explains the Figurae Euclidis. A very unusual commentary of Aristotle because it left all the problematic discussions of De caelo aside and concentrates on man and his senses, especially optics: De perspicuo, de lumine, de luce, de opasco, de colore, de visione in communi (seeing of colours), analecta de speciebus intensionalibus de colore et luce (colour theory), de optica, catoptrica et dioptrica, theoremata de visione per radium reflectum, and de oculi parte ubi perfisitur. [more information available on request esp. in german]

[Euclid] Guarini, Guarino. *Euclides adauctus et methodicus mathematicae universalis*. Turin: Bartolomeo Zapata, 1671. 2° [352 x 220 mm]. Half-title, woodcut device on title, 11 engraved plates, woodcut diagrams, devices and initials. Contemporary vellum, manuscript title on spine, speckled edges, wormholes, some scuffing and staining, head of spine chipped. \$ 4800.-

First edition of this commentary on Euclid by the baroque architect Guarini. The author explains in detail the practice of building vaults and domes that made him justly famous. This copy without the appendix of 12 leaves which was published some months after the book appeared. Early sold copy don't have this appendix bound with, only the copy still on stock at the publishing date of the appendix were bound with that.

Science in Wittenberg - Sammelband with handwritten annotations

[Euclides] Elementale geometricum, ex Euclidis geometria, a Ioanne Voegelin [Johannes Voegelin], Halypronensi, ad omnium mathematicos studiosorum utilitate decerptum.- Paris: Chrestien Wechsel, 1534. [36] leaves. With printer's device on title-page and numerous woodcut diagrams in the margins.

[bound with:]

Regius, Ulrich. Utriusque arithmetices epitome, ex variis authoribus concinnata, per Hudalrichum Regium. Nunc denuo in lucem edita, ac quam plurimis quibus scatebat mendis expur-

gate.- Freiburg im Breisgau: Stephan Graf, 1543. [104] leaves with numerous tables & woodcut diagrams.

[bound with:]

Sacrobosco, Johannes de. [Melanchthon, Ph., Reinhold, Erasmus] Libellus de Sphaera. Accessit autoris computus ecclesiasticus, et alia quaedam in studiosorum gratiam edita. Cum praefatione Philippi Melanchthonis.- Wittenberg : Veit Kreuzer, 1545. 129 leaves. The 7 leaves with Melanchthon's preface have not been bound in this copy: for catholic censorship ! Melanchthon's name has also been inked out of the title-page, as often. With numerous astronomical diagrams in the text, of which two with volvelles. At the end are bound two large fold. tables. \$ 4800.-

I.) Rare fifth edition of this elementary introduction into geometry, mainly based on Euclid. Johann Vögelin (end of 15th cent. – 1549) from Heilbronn, lectured mathematics in Vienna from 1525. He succeeded Tannstetter as Prof. at the University of Vienna. "Obwohl Vögelins Werk wissenschaftlich nichts Neues brachte, wurde es im Universitätsunterricht oft benutzt und mehrfach nachgedruckt." – HAB, Maß, Zahl u. Gewicht 62; Graf-Stuhlhofer, Tannstetter 1996. pp. 56-68; Steck, Euclid. 53

II.) Rare second edition of this mathematical primer, first printed in Strasbourg (1536) and than in Freiburg (1543,1550). This is an arithmetic book in the traditional style. Rather than being practical like the *Arithmeticae practicae* of Gemma Frisius (which was published only four years later), this work follows the tradition of Boethius. It begins with a discussion of number theory, figurative numbers, etc. but does include a more practical section on basic arithmetic at the end. The work closes with a small section on the use of the **table abacus**. What both DeMorgan and Smith overlooked is that this book holds an important place in the history of number theory. Perfect numbers are those whose divisors sum up to the number itself, e.g. $1+2+3=6$ and $1+2+4+7+14 = 28$. Nichomachus knew that the first four perfect numbers were 6, 28, 496, and 8128. On the basis that the first had a single digit, the second was two digits, the third three, and the fourth four digits, he predicted that the fifth perfect number would have five digits, the sixth would have six, etc. This made sense from the Pythagorean view of numbers in that it provided symmetry. It was also suspected that 2^p-1 (2^p-1) was always a perfect number. Regius found the factors of $2^3-1 = 2047 = 23 \times 89$, which disproved this last conjecture. ... It was, of course, discoveries like these that led to the decline in the study of the ancient mathematicians [Nicomachus proved wrong]. Little is known about Ulrich regius (Rieger); he was a school teacher and preacher at Freiburg.– Tomash Coll. R62 [Straßbourg ed.]; Smith, Rara 182; VD16 ZV13011

III.) Ninth edition, the fifth Wittenberg imprint of Sacroboscos Sphaera, edited by Philip Melanchthon. "Sacrobosco's Sphaera, written in Paris around 1220, enjoyed a long popularity as the leading introduction to spherical astronomy. First printed in 1472, it went through at least a score of editions in the 15th cent. And something over 100 in the 16th cent. Publishing Sacrobosco entered a new and different phase in Wittenberg in 1531. Prior to that year all the editions were folio or quarto, often quite expensive. In 1531 the Lutheran University of Wittenberg apparently sponsored a version cheap enough to become a required textbook for the astronomy course. It is fully illustrated with didactic figures, and comes with a preface in praise of astronomy by Philipp Melanchthon [here omitted by the catholic census]. In 1538 a revised revision appeared: for the first time three of the diagrams incorporated moving parts. This proved to be such a popular feature that virtually every octavo Sacrobosco from the 1540's on – regardless where printed – included these same identical volvelles. [O. Gingerich]. At the end is printed Erasmus Reinhold's text *Themata quae continent methodicam tractationem de horizonte*, ... Lit.: O. Gingerich. Sacrobosco as a textbook, in: *History of Astronomy XIX* (1988), 269-273; Reich. Melanchthon und die Mathematik; in: Frank/Rhein [eds.] *Melanchthon u. d. Naturwiss.* pp. 116. Gastgeber in: *Biblios 46* (1997), 19-51; VD16 J726; Houzeau/Lan. 1653.

Heart Beat Registration – Electrocardiogram (ECG) invented

Einthoven, Willem. Galvanometrische registratie van het menselijk electrocardiogram. in: Herinnerings-bundel Prof. S. S. Rosenstein.- Leiden: E. Ijdo, 1902. 4°. VIII, 741 pp. Contemporary publisher cloth with printed cover title, rubbed and soiled, but a fine copy. \$ 3000

First edition of his paper announcing the first modern ECG registration, which was obtained with his newly developed string galvanometer. The key sensing element of the apparatus is a thin silver-coated quartz string that is placed in a strong magnetic field. Willem Einthoven demonstrates the improved results obtained with his new equipment for registering the electrical activity of the heart. He shows the superior performance of the string

galvanometer by comparing the original technique of Waller, employing Lippmann's capillary galvanometer, and the results of his own improvement of this method with the tracings obtained with the new device. His report is illustrated with the first modern ECG recording and with the customary P, Q, R, S, T notation. Einthoven was born in Semarang, Java, in 1860. When he was six years of age his father, a physician, died and the family moved to Utrecht. There Einthoven entered medical school in 1879 and received his degree in medicine with distinction six years later. He was appointed professor of physiology in Leiden in 1886. Stimulated by the work of Augustus Waller, he started to improve on the techniques for recording the electrical signals of heartbeat. His work not only improved previous methods but eventually also led to the development of a new instrument, the string galvanometer, for which he received the Nobel Prize in Medicine in 1924. He died in 1927. - Gedeon. Science & Technology in Medicine. 99 landmark publications. No. 71.

Willem Einthoven (1860 – 1927) was a Dutch doctor and physiologist. He invented the first practical electrocardiogram (ECG or EKG) in 1903 and received the Nobel Prize in Medicine in 1924 for it. Before Einthoven's time, it was known that the beating of the heart produced electrical currents, but the instruments of the time could not accurately measure this phenomenon without placing electrodes directly on the heart. Beginning in 1901, Einthoven completed a series of prototypes of a string galvanometer. This device used a very thin filament of conductive wire passing between very strong electromagnets. When a current passed through the filament, the electromagnetic field would cause the string to move. A light shining on the string would cast a shadow on a moving roll of photographic paper, thus forming a continuous curve showing the movement of the string. The original machine required water cooling for the powerful electromagnets, required 5 people to operate it and weighed some 600 lb. This device increased the sensitivity of the standard galvanometer so that the electrical activity of the heart could be measured despite the insulation of flesh and bones. Although later technological advances brought about better and more portable EKG devices, much of the terminology used in describing an EKG originated with Einthoven. His assignment of the letters P, Q, R, S and T to the various deflections is still used. The term "Einthoven's triangle" is named for him. It refers to the imaginary inverted equilateral triangle centered on the chest and the points being the standard leads on the arms and leg. After his development of the string galvanometer, Einthoven went on to describe the electrocardiographic features of a number of cardiovascular disorders. Later in life, Einthoven turned his attention to the study of acoustics, particularly heart sounds which he researched with Dr. P. Battaerd.

Natural history of the evil

[Feyerabend, Sigmund; editor] *Theatrum Diabolorum*, Das ist: Ein Sehr nutzliches verstenndiges Buch, darauß ein jeder Christ, sonderlich unnd fleissig zu lernen, wie daß wir in dieser welt nicht mit Keysern, Königen, Fürsten und Herrn, oder andern Potentaten, sondern mit dem allermechtigsten Fürsten dieser Welt, dem Teuffel zu kempffen und zu streiten. Die Namen der Authoren und Scribenten findet man verzeichnet nach der Vorrede. Gebessert und gemehret, mit einem newen Pestilentz Teufel, so zuvor noch nie in Truck außgangen, sampt einem nutzlichen Register.- Franckfurt am Mayn, Peter Schmid für Hieronymus Feyerabend, 1569. Folio [340 x 230 mm]. 6 un., 542 num., 5 un. Blätter [ff.] m. Holzschnitt a. Titel u. Holzschnitt-Druckermarke v. Jost Am-man a. Schluß. Blindgeprägter Schweinsleder-holzdeckelband d. Zt m. 2 Messingschließen, etwas berieben u. bestoßen. \$ 9400.-

First edition of this compilation of different authors to all sort of devils: a natural history of evil. "The most curious work of protestant demonology is the *Theatrum Diabolorum* by Sigmund Feyerabend, a voluminous collection of the views of Luther's followers concerning the existence, power, nature and demeanor of devils. Luther's belief in the Devil was crude, but he was even here morally great, strong in his religious sentiment, and serious in his demand that every one personally should honestly wage a war with the powers of evil, and that no church, no intercession of saints, no formulas or rituals had any saving powers. Luther's followers retain all the crudities of their master and to some extent his moral seriousness, but they fall below the manliness of his spirit. Feyerabend's *Theatrum*, which, as the title says, is a useful and sensible book, contains a great number of essays written by such prominent authorities as Jodocus Hockerus, Hermann Hamelmann, Andreas Musculus, Andreas Fabricius, Ludovicus Milich, and others. The Reverend Hocker explains in 48 chapters almost all possible problems connected with devils whose number is [Chapter VII], according to Borrhaus, calculated to be not less than 2.665.866.746.664. Others describe special kinds of devils, such as the devil of blasphemy, dance-devil, the servant's devil, the hunting devil, the drink-devil, the wedlock-devil, the devil of tyranny, the laziness devil, the devil of unchastity, the miser's devil, the pride devil, the pantaloon devil, the gambling devil, the courtier's devil, and the pestilence devil. The author of the last chapter, Rev. Hermann Strack, concludes by saying: "When we

can obtain medicine let us not have a con-tempt for god's valuable gifts, both withal let us always and all the time rest our confidence and main comfort upon the only God." [Paul Carus]

Erste Ausgabe dieses von dem bedeutendsten Frankfurter Verleger dieser Jahre veranstalteten Sammelbandes, einer Zusammenstellung der zeitgenössischen Teufelliteratur, die großenteils in anderen Verlagen vorveröffentlicht war. Die erste Ausgabe von 1569 des von Sigmund Feyerabend kompilierten Sammelwerkes enthielt 20 Traktate, die zweite Ausgabe von 1575 ist um 4 auf insgesamt 24 Traktate erweitert. Da Luther dem Volksglauben seiner Zeit sehr verpflichtet war und den Teufel in seinen Schriften häufig erwähnt, nimmt die Person des Teufels in der protestantischen Literatur einen großen Raum ein. Alles, was einem sittlichen Verhalten entgegenstand, jedes nur denkbare Laster, wurde in der Gestalt eines Teufels personifiziert. So erfanden die protestantischen Geistlichen eine Unzahl von Spezialteufeln wie den Geiz-, Wucher-, Lügen-, Ehe-, Huren-, Spiel- und Sauffeufel. Da die Teufelliteratur sich gut verkaufte, kam 1569 der Frankfurter Verleger Feyerabend auf den Gedanken, unter dem Titel Teufelstheater ursprünglich 20, dann später in den weiteren Auflagen 33 Schriften, Geschichten und Dramen mit dieser Thematik in einem Sammelwerk zusammenzufassen. Jedes dieser Werke behandelt einen besonderen Teufel, so dass der Leser 33 Teufelarten kennen lernt. VD 16 F 904; Lexikon des gesamten Buchwesens II, 580 (Feyerabend); Lexikon des gesamten Buchwesens VII, 386 (Teufelliteratur); Ebert 22706; Hayn-G. VII, 616 f.: "Ausführliche Beschreibung dieses höchst seltenen Buches siehe Ebert. Eines der für die Kulturgeschichte des 16. Jahrhunderts wertvollsten Bücher"; Grimm, Die deutschen Teufelbücher des 16. Jahrhunderts 513-570. "Der von Feyerabend gewählte Leittitel für sein Sammelwerk 'Theatrum Diabolorum', Schauplatz u. Schaustellung der Teufel, war für das damalige Buchwesen recht modern und ein anziehender echter Titel aus dem Geist des sich ankündigenden Frühbarock mit seinem 'Welttheater'. Jost Ammans für die Sammelausgabe von 1569 besonders angefertigter Titelholzschnitt - er zierte auch noch den Titel der Zweitausgabe - unterstrich das 'Theatrum' bildlich" (Grimm 529). In der seit der Mitte des 16. Jahrhunderts erschienenen Teufelliteratur, verfaßt von meist lutherischen Pastoren, geht es um eine Vielzahl von Lastern und Leidenschaften und deren schlimme Folgen für das Seelenheil des Menschen. Seltener werden auch häusliche, kirchliche und öffentliche Mißstände angesprochen. Die 20 Teufelstraktate im vorliegenden Werk behandeln den Teufel selbst, sowie heylige Teuffel - Bann - Zauber - Fluch - Tantz - Gesind - Jag - Sauff - Ehe - Hurn - Geitz u. Wucher - Schrap - Faul - Hoffarts - Hosen - Spiel - Hof - Pestilenz-Teuffel. Hier in der Form des Traktats und im Geist der lutherischen Orthodoxie, getragen von einem rigoristischen Moralismus, "der sich mit einer - gegenüber Luther - stark veräußerlichten Teufelvorstellung verbindet; die Sprache ist bei aller Rhetorik volkshah und bildkräftig und darin deutlich von Luther inspiriert" (Lex. d. ges. Buchwesens VII, 386)."

International Magnetic Research inaugurated

[Gauss, Carl Friedrich; Wilhelm Weber] Resultate aus den Beobachtungen des magnetischen Vereins im Jahre 1836, 1837, 1838, 1839, 1841.- Göttingen: Dieterichsche Buchhandlung, 1837 8°. 103 pp., [1], 9 tab., X plates; iv, 140, (65, magnetic intensity tables) pp., with 10 folding engraved plates of charts & instruments; 150 pp., 10 plates; 130 pp., 4 plates; 1841 ed. incptl. **[with:] [Gauss, Carl Friedrich; Wilhelm Weber]** Atlas des Erdmagnetismus nach den Elementen der Theorie entworfen.- Leipzig: Weidmann'sche Buchhandlung, 1840. 4° [278 x 226 mm] IV, 36 pp. [XVI, [2] double-page lithographed [one zinkographed] plates., [4] Tab. Original beige papercard boards, with printed label on cover, title stamped, else good. As always some spottings. \$ 6000.-

First editions of the first volumes of the journal for the Magnetische Verein, "a society organized by Gauss and Weber which united a worldwide network of magnetic observatories and established an important precedent for international scientific cooperation." [Norman].- The 'Resultate' appeared in six separate volumes and a quarto atlas published first at Göttingen and then at Leipzig. Complete sets are of great rarity on the market. The work of Oersted and Ampère drew to the study of magnetism one of the sharpest minds of Europe, that of Carl Friedrich Gauss (1777-1855). Gauss was a professor of mathematics at the German university of Göttingen and rarely traveled away from home, but in 1828 he attended a conference in Berlin, and stayed there as house guest of Alexander von Humboldt. Humboldt (1769-1859) was a naturalist who had earlier explored the jungles of South America and later the author of "Kosmos," a 5-volume encyclopaedic compendium of the natural sciences, which greatly helped spread public interest in science. Humboldt was also quite interested in magnetism. During this visit he showed Gauss his collection of magnetic instruments and encouraged him to apply his talents to magnetism. That Gauss did, together with his young assistant Wilhelm Weber (1804-91), contributing greatly to the understanding of the Earth's magnetic field. In their magnetism lab, Gauss and Weber constructed the first magnetic telegraph, using it until lightning knocked down the wire. They devised a new suspension for obser-

vatory magnets--big magnets, slow to respond, later replaced by more nimble instruments. In 1832 Gauss and Weber also devised a clever method of using an auxiliary magnet to measure not only the direction of the Earth's magnetic force, but also its intensity. Today undergraduate physics students use the Gauss method for measuring the strength of the Earth's field as a standard lab experiment, not realizing its historical significance. Actually it made possible for the first time a global network of magnetic observatories, because now every instrument could be calibrated locally, independently of any others. But perhaps the most lasting contribution was the use of a precise mathematical method to represent the global magnetic field of the Earth and to combine observations at many locations. That was spherical harmonic analysis, previously used for analyzing gravitational fields in celestial mechanics. According to Sidney Chapman, it was introduced to geomagnetism by the French mathematician Simeon Denis Poisson (1781-1840).- DSB. V, 298-315; Wheeler Gift Cat. 920; Ronalds 195; Bakken 205; Ekelöf Cat. 899. Dibner, Heralds of Science 66; Norman 883 & 882; not in Barchas Coll.

Catalogue of a Mechanical cabinet

[Mechanical Cabinet] **Gabinetto** Tecnologico dell' I. R. Istituto Lombardo di Scienze, Lettere ed Arti.- Milano: coi Tipo di Giuseppe Bernardoni di Gio, 1846. 8° [220 x 154 mm] 55 pp., [1, blank] Plain blue Wrappers, title stamped, fine uncut & unopened copy. \$ 1600.-

Rare Catalogue of the inventory of a technical cabinet in Milano. A lot of the machines / items were constructed & built by the Milanese engineer Luigi de Cristoforis (1798-1862), who is renowned for the development of an early internal combustion engine: he was the first to use liquid fuel to fire an internal combustion engine, in 1841, in a naphtha-fuelled machine. In 1857 he had settled in London, living at 67 Lower-Thames Street and working on a series of improvements and patents on wheeled vehicles.

Das Mailänder "Raritätenkabinett" aus der Frühzeit der Industrialisierung enthielt in sechs Räumen Objekte wie ein "Veicolo che progredisce sopra palle", sowie andere Fortbewegungsmittel, verschiedene Sägen, ein speziell konstruiertes Krankenbett, exotische Hölzer, Dampfmaschinen, Meßgeräte, Öfen, einen 'Chiave con misura del tempo' et al. Alle vorgestellten Objekte mit kurzer Erläuterung.

Astronomical Incunabla

Gerard de Cremona [attr.] Theorica planetarum.- Venedig: Franz Renner von Heilbronn, 1478. 20 Bll. Mit Gedicht an den Leser von Pescennius Franciscus Niger, Antiqua-Type, 25 Zeilen. Mit Holzschnitt-Initialen, 8 astronomischen Holzschnitten. Halblederbd. d. 18. Jahrhunderts. \$ 12000.-

Early edition, first published in 1472. The authorship of the Theorica planetarum has been controversial. According to a medieval tradition, the work was written by Gerard of Cremona. In the (older) scholarly literature (Nallino, Carmody, et al.), however, the work was attributed to Gerard of Sabbioneta. On the basis of newer manuscript evidence, it is highly likely that the Theorica planetarum was translated by Gerard of Cremona or someone from his circle. Gerard of Cremona (c. 1114–1187) was an Italian translator of Arabic scientific works found in the abandoned Arab libraries of Toledo. He was one of the most important scholars among the Toledo School of Translators who invigorated medieval Europe in the twelfth century by transmitting ancient Arabic, Greek and Jewish knowledge in astronomy, medicine and other sciences, and making them available to every literate person in Europe. One of his most famous translations is of Ptolemy's *Almagest* from Arabic texts found in Toledo. The text was often given with Sacrobosco's *Sphaera mundi*, but a lot of libraries have the text alone and Bibl. cite it often separate.- Goff J-402; Proctor, 4175 Hain, 14108; Stillwell. The awakening interest in science no. 63. BSB I-500; GW M14655; The Theorica planetarum is usually considered to be by the Cremona astrologer Gherardo da Sabbioneta, although some authorities ascribe it to the Gerardus Cremonensis who died 1187.- DSB, Suppl., 189 for a summary of the evidence. Graziella Federici-Vescovini. Michel Scot et La "Theorica Planetarum Gerardi in: Early Science and Medicine 1 (1996), 272-282.

Lavoisier as the Newton of Chemistry

Girtanner, Christoph. Anfangsgründe der antiphlogistischen Chemie... zweite, verbesserte und stark vermehrte Auflage.- Berlin: bei Johann Friedrich Unger, 1795. 8°. [16], 466 pp. with engraved frontispiece portrait of Girtanner (D. Berger sc. 1795). Fine crisp copy in contemporary half calf, gilt spine. Ownership inscript. On front-fly. \$ 700.-

The greatly enlarged and corrected second edition of this important work, dedicated to Gren, Hermbstädt and J. B. Richter. It was the first German textbook of chemistry based entirely on the antiphlogistic system, and gave for the first time a detailed exposition of Lavoisier's doctrines to the German-speaking world. Jöns Jacob Berzelius, when a student, used this work. Girtanner refers in this edition to objections made to him by Richter, who had been converted to Lavoisier's antiphlogistic doctrine by reading this book but had raised some pertinent questions. Published after Lavoisier's death in 1794, the author eulogizes him and compares him with Newton. Girtanner's portrait appears for the first time in this edition.- not in Blake, Duveen, Ferguson, Neu, ...; Ferchl 185, Wellcome III, 119; Bolton 481; DSB V,411, Partington III, 590; Edelstein 997; Neville 525/26.

Gleichen- Russworm, Wilhelm Friedrich von. Mikroskopische Untersuchungen und Beobachtungen der geheimen Zeugungstheile der Pflanzen in ihren Blüten, und der in denselben befindlichen Insekten.- Nürnberg: Raspe, 1790. Folio. 3 Bl., [8], 2 Bl., 72 pp., 40 pp., 4 Bl., 26 pp. with 3 etched vign., 51 finely coloured plates. Contemporary plain wrappers, slightly browned, partly soiled, edges creased; printed on strong paper, wide- margined copy. \$ 7000.-

First edition, second printing.- Nissen BBI 718; Stafleu-C. 2037 Anm., Pritzel 3367 Anm.; DSB V, 424; ADB IX,226; Gerlach. Mikroskopie 124; G/M 2465. Erste Ausgabe, zweiter Druck mit [zuerst 1763-66]; Nissen (BBI) 718. Stafleu-C. 2037 Anm. Pritzel 3367 Anm. – Vgl. zum Autor ADB IX, 226. DSB V, 424. – Zum Illustrator: Nissen I, 178; Martin-M. 81: "Wilhelm Friedrich Freiherr von Gleichen beendete 1756 seine militärische Karriere am Hof des Markgrafen von Bayreuth und zog sich als Privatgelehrter auf seinen Familiensitz Schloß Greifenstein in Franken zurück. Er lernte Ledermüllers Werk kennen und konzipierte darauf ein Universalmikroskop. Physikalisch handelt es sich um ein einfaches Mikroskop vom Typ eines 'Zirkel-Mikroskopes', das in vielen Formen und Konstruktionsvarianten vorkommt. Dasjenige des von Gleichen hatte eine vollendete Form." Garrison-Morton 2465 heben die mit diesem relativ einfachen Mikroskop erzielten Ergebnisse besonders hervor: "Gleichen was probably the first to attempt to stain bacteria; he used carmine and indigo."

Hoff, Jacobus Henricus van't. [Lois de l'équilibre chimique dans l'état dilué, gazeux ou dissous.](#)- Stockholm : P.A. Norstedt & Söner, 1886. (= Offprint from Kongl. Svenska Vet.-Akad. Handl., vol. 21, no. 17) 4°. 58 pp. Original printed wrappers, covers chipped, spine damaged, otherwise very good. \$ 1200.-

First edition of a landmark paper in Science and Technology in Medicine [Gedeon no. 63]: his famous theoretical investigation of the laws of chemical equilibrium for dilute solutions. He uses the experimental results of Wilhelm Pfeffer in support of his theory. From thermodynamic principles applied to diffusion through a semi-permeable membrane, van't Hoff derives the laws of chemical equilibrium for dilute solutions. He obtains the relationship between osmotic pressure, the concentration of a solute, the volume of the solution and the temperature and compares his calculations with experimental results for a number of specific chemical reactions. In a paper immediately following this main treatise, van't Hoff expands on the striking similarity between the laws governing osmotic pressure and the ideal gas laws as established by Boyle, Gay-Lussac and Avogadro. In 1901 he was awarded the first Nobel Prize in Chemistry for his work on chemical dynamics and on osmotic pressure in solutions. "In the autumn of 1885, van't Hoff submitted three papers to Professor Otto Pettersson in Stockholm with the request that they should be published in some Swedish journal. Their subject matter was connected with the work of Scandinavian scientists, the pioneering work of the Norwegians Guldberg and Waage on the law of mass action, Thomsen's confirmation of this law, Arrhenius's doctoral thesis, and research data which Pettersson himself had placed at van't Hoff's disposal. Van't Hoff's paper appeared in the Transaction of the Academy under the general title of 'Lois de l'équilibre chimique dans l'état dilué, gazeux ou dissous'. The Swedish Academy of Science is proud of having received for publication these papers which, together with 'Etudes de dynamique chimique' - 'Revolution chimique' as it has been called - will always be counted among the classical documents of chemistry." (Nobel).- Gedeon No. 63; Nobel, The Man and his Prizes, p. 326. DSB XIII, 579. Partington IV, 654, note 3. G. & M. No. 706.: "Van 't Hoff stated that osmotic pressure is proportional to the concentration if the temperature remains invariable, and proportional to the absolute temperature if the concentration remains invariable."

[Hölzl, Matthias Eustachius] Tractatus de meteoris historico-philosophicus quem cum parergis ex universa philosophia in alma et archi-episcopali universitate Salisburgensi Præsidi P. Coelestino Romoser, ordinis S. Benedicti, ex monasterio Admontensi, AA. LL. & Philosophiæ Doctore, ac Professore Ordinario, ejusdemque Facultatis p.t. Decano. / Publicè propugnabit nobilis, ornatissimus ac Doctissimus Dominus Matthias Eustachius Hölzl Cremsensis

Austriacus, AA. LL. & Philosophiae Magister. Anno M. D. C. C. Die 27 Julij.. Salzburg: J. B. Mayr, 1700. Folio [300 x 195 mm] [8], 309 [recte 300] pp. Contemporary paper covered boards, fine. Buntpapierbrosch. d. Zt., Goldschnitt. \$ 1200.-

Early work on meteors by Matthias E. Hölzl under the presidy of Cölestin Romoser (1667 -1720), benedictian and director of the University of Salzburg. As the Aristotelian doctrine it covers everything under the sun. From the rainbow, milky way, comets, northern light, et al. With no images. "Während seiner Rektorzeit führte seine unnachsichtige Haltung ge-genüber dem jungen Verfasser eines Pamphlets, den er zu mehreren Stockhieben verurteilt hatte, zum größten Studentenstreik in der Geschichte der Salzburger Benediktineruniversität. Erst nachdem Cölestin Romoser sein Amt resignierte, konnten die aufgebracht Studenten wieder beruhigt werden." - COPAC: Oxford; OCLC: Ad-ler, Smithsonian, Brigham Young, Houghton.

Hoff, Karl Ernst Adolph von. Magazin für die gesammte Mineralogie, Geognosie und mineralogische Erdbeschreibung. Verfasst von einer Gesellschaft Gelehrten und hrsg. von Erster Band, erstes bis viertes Heft. [= all. publ.] - Leipzig: bei Roch und Compagnie, 1801. 8° [202 x 120 mm] [4], 559 pp., [18] with 4 fold. plates. Contemporary halfcald, red edges, black label, rubbed and soiled, inside little waterstained and a few pages spotted else good copy. Ownership stamp on front fly: Schmid and and verso first title a stamp: Werners Nachlaß, being the copy of Abraham Gottlob Werner (1749-1817). sold

Erste Ausgabe dieser nur kurze Zeit währende mineralogischen Zeitschrift, mit Beiträgen von Abilgaard, Cuvier [Über die Arten der Säugethiere], James Hall, Hoff, Reuss, Schlotheim, Wiedemann, et al. Herausgegeben von Karl Ernst Adolf von Hoff, der am 1. November 1771 in Gotha geboren wurde. Schon während der Schulzeit begann er, sich mit seiner "Liebhaberei", der Mineralogie und Geognosie, zu beschäftigen. Besonders einflussreich auf sein erdwissenschaftliches Interesse war sein Kontakt mit dem aus Gotha stammenden Göttinger Prof. Johann Friedrich Blumenbach (1752 - 1840), bei dem er während seines Jura-Studiums Vorlesungen über Naturgeschichte hörte u. ungestört in seinen umfangreichen Sammlungen arbeiten konnte. Nach dem Studium begann seine berufliche Laufbahn als Legationssekretär bei der Geheimen Kanzlei unter Herzog Ernst II. von Sachsen-Gotha-Altenburg auf Schloss Friedenstein in Gotha. Dabei erwarb er sich große Verdienste bei diplomatischen Missionen während der Napoleonischen Kriege. Die dabei notwendigen Reisen führten ihn nach Wittenberg, Berlin, Posen, Königsberg, Dresden, Altenburg, Kassel, Frankfurt am Main und nach Coburg. Bei der Reorganisation der Universität Jena und der Regelung erbrechtlicher Angelegenheiten nach dem Tode von Herzog Ernst II. (1804), Herzog August (1822) u. Herzog Friedrich IV. (1824) konnte er seine beruflichen Fähigkeiten unter Beweis stellen. Im Rahmen seiner weiteren Beamtenlaufbahn wurde er Chef der Geheimen Kanzlei, Geheimer Assistent, übernahm 1829 das Oberkonsistorialpräsidium u. 1833 die Direktion der Friedensteinschen Sammlungen für Wissenschaft und Kunst. Er verstarb am 24. Mai 1837. Im Jahre 1801 begründete Hoff ein neues Journal (Magazin für die gesamte Mineralogie, Geognosie und mineralogische Erdbeschreibung). Er pflegte intensive, z. T. freundschaftliche Kontakte zu bedeutenden Persönlichkeiten und Gelehrten seiner Zeit, wie z. B. Alexander v. Humboldt, Leopold von Buch u. Karl Karsten in Berlin, Johann Wolfgang von Goethe in Weimar, Karl Leonhard in Hanau, Bernhard von Lindenau in Gotha u. Johann Carl Wilhelm Voigt in Ilmenau. Auf zahlreichen Fußwanderungen erkundete er die verschiedenen Gegenden des nahen Thüringer Waldes. Zusammen mit seinem Freund Wilhelm Jacobs veröffentlichte er 1807 und 1812 in zwei Bänden zu je zwei Heften die erste ausführliche geographische Beschreibung des Thüringer Waldes von Eisenach bis Sonneberg. Die beigegebene topographische Karte entwarf Hoff selbst. Seinen Reisen und zahlreichen Wanderungen entsprang eine etwa 5.000 Belegstücke umfassende Sammlung v. Mineralen, Gesteinen und Fossilien, die heute noch teilweise in den historischen Beständen des Museums der Natur Gotha nachweisbar ist. Ab 1810 nutzte er seine Reisen u. Wanderungen durch den Thüringer Wald zu systematischen Höhenmessungen u. veröffentlichte die Ergebnisse in mehreren Beiträgen. Karl Ernst Adolf von Hoff kann man daher als den Begründer der modernen dynamischen Geologie, d. Erdgeschichtsforschung und des Aktualismus in Deutschland oder auch als "Darwin der Erdwissenschaften" bezeichnen. [Dr. Thomas Martens]

Hoff, Karl Ernst Adolf von. Geschichte der durch Überlieferung nachgewiesenen natürlichen Veränderungen der Erdoberfläche. Ein Versuch; von Karl Ernst Adolf Von Hoff ... I. Theil bis V. Theil. 5 Vols. [cptl.] Eine von der Kön. Gesellschaft der Wissensch. zu Göttingen gekrönte Preisschrift. Mit einer Charte von Helgoland. [IV. + V. Theil: Chronik Der Erdbeben Und Vulcan-Ausbrüche: mit vorausgehender Abhandlung über die Natur dieser Erscheinungen. Hrsg.: Heinrich Karl Wilhelm Berghaus]. - Gotha, Justus Perthes, 1822-1841. 8°. Zeitge-

nössische schwarze Pappbände mit goldgeprägtem, rotem Titlrückenschild. XX, 489 pp., 1 Bl., XXX, 560 pp., 1 Bl., mit einer gestochenen Karte. VIII, [1] Bl., 511 pp., [1]; [2] Bl., IV, [1] Bl., 470 pp.; [2] Bl., II, 406 pp. Einbände geringfügig berieben. Stellenweise etwas gebräunt. Im Ganzen jedoch wohlerhaltenes Exemplar. \$ 2400.-

Erste Ausgabe. - Vgl. Zittel, S. 187: "Hoff begann aus der Literatur Beweise für den geologischen Aktualismus zu sammeln, die er von 1822 ab veröffentlichte. Durch diese fundamentale Arbeit wurde er der Begründer des Aktualismus vor Charls Lyell. Hierin liegt seine bleibende, noch heute gültige Leistung für die Geologie, zu deren Klassikern er gehört." - Die Folgebände erschienen erst 1834, 40 und 1841. - Die Karte im ersten Band zeigt die Veränderungen Helgolands in der Gestalt der Insel im achten, dreizehnten und siebzehnten Jahrhundert und ist von jener Karte entlehnt welche Edward Daniel Clarkes in seinen "Travels in Various Countries of Europe, Asia and Africa" abbildete.

Karl Ernst Adolf von Hoff (1771 - 1837, Gotha) was a German natural historian and geologist. After studying law, physics and natural history, in 1791 he was appointed to a diplomatic post by Ernest II, Duke of Saxe-Gotha-Altenburg. From 1832 onwards he was the director of Gotha's royal science and art collections and he also wrote the five-volume: *Geschichte der durch Überlieferung nachgewiesenen natürlichen Veränderungen der Erdoberfläche* from 1822 to 1841. **Provenance:** Abraham Gottlob Werner (1749 – 1817) - a German geologist who set out an early theory about the stratification of the Earth's crust and coined the word Neptunism. Though much of Werner's theoretical work was erroneous, science is indebted to him for clearly demonstrating the chronological succession of rocks, for the zeal which he infused into his pupils, and for the impulse which he thereby gave to the study of geology. He has been called the "father of German geology."- not Freilich, not in Sinkankas, not in Schuh, not in Ward/ Carozzi, Hill Cat. 135, 45.

A Medical 'Wunderkammer' (Musée Dupuytren)

Houel, Charles Nicolas. Catalogue des pièces du Musée Dupuytren, publié sous les auspices de la Faculté de médecine de Paris.- Paris : Dupont et Masson, 1877- 1880. 4°. [244 x 174 mm] 3 [of 5] vols. text & 5 atlases in 4. [atlas cptl.] with 31 photos in pantotype, 19 photos in lithotype, 16 photos in phototype & 19 photos in phototype. Publ. Wrappers and Publ. halfcloth, stamped, little unfresh. Inside quite good copy. \$ 4000.-

Catalog with photographic images from this long established and important museum. The Musée Dupuytren is a museum of anatomical items illustrating diseases and malformations. The museum was established in 1835 by Mathieu Orfila as the Museum of Pathological Anatomy of the Medicine Faculty of the University of Paris, with the bequest of Baron Guillaume Dupuytren, anatomist and celebrated professor of surgery. The museum was installed in the old refectory of the Cordeliers Convent, gathering collections from throughout the faculty. Its first catalog was compiled between 1836 and 1842, and listed about a thousand specimens. By the late 1870s the museum contained over six thousand pieces. The museum began a slow decline starting in the late 19th century, despite continued acquisition of new collections, and its upkeep became problematic. In 1937 Gustave Roussy ordered the museum shut, with many items subsequently lost or destroyed. Among many other notable items, the museum contains brains of aphasic patients, preserved in alcohol by the celebrated anatomist Paul Pierre Broca, and used in his research in the localization of brain functions. The photographer was Pierre Lanith Petit (1832–1909) who worked 'with' or better under orders of André- Adolphe- Eugène Disdéri (1819–1889) in the 77 employees workshop. In 1858, he opened his own workshop. He was the official photographer of the 1867 *Exposition Universelle* and went to New York several times to report on the construction of the Statue of Liberty. In 1898, he was the first photographer to attempt underwater photography.- Taureck, Bedeutung 208.

Invention of a Planisphere

Huldeberg, Daniel Erasmus de. Opuscula iuventutis mathematica curiosa quorum syllabum pagina versa exhibet in unum collecta et tertium edita curante Georgio Guilielmo de Lage ... cum epistola huius ad autorem illustrem.- Jenae [Jena]: apud Io. Tob. Oehrlingum, 1710. Quarto [193 x 116 mm] [32], 280 pp., with [3] folded leaves of plate, title page in red & black, engraved initials. Printer's tail-piece. Contemporary calf, gilt spine in compartments, title stamped, else fine. \$ 3800.-

Unknown to Lalande, and containing curious inquiries as to the knowledge of America, by Solomon and others, prior to Columbus. Daniel Erasmus von Huldeberg (1660-1733) has written two dissertations under the supervision of Bartholomäus Goldbach in Königsberg in 1678 and 1680, which are reprinted here as part 2: De rotvnditate ac magnitudine terrae & 3: De terrae motu et situ dissertation, continens ... Copernici hypothesi ... sub finem novo experimento Anglicano Roberti Hookii [Hooke]. The first part describes a newly invented instrument: a planisphere [with plate], the fourth part deals with the number of planets [De numero planetarum] citing observations of Hevelius; Kepler, Galilei, and others. He studied mathematics, geography, law and philosophy in Königsberg and Frankfurt (Oder) and was a high diplomat in Vienna. He was involved in English foreign policy and was correspondent of George I. of England and Leibniz; a copy of this book was in the Macclesfield Library, which indicates that he must have good contacts in England.- KVK: Speyer, Dresden, Stuttgart, Dillingen, Bamberg, Augsburg, Göttingen, Erfurt, Halle, Jena, Weimar [lost?], and others; COPAC: UCL, NL Scotland; OCLC: no copy.

Graf Daniel Erasmus von Huldenberg (1660-1733) war Geograph, Erfinder eines Planisphärium, Gesandter; Geheimer Rat; als Legationsrat bekleidete den Rang eines Kgl. Großbrit. und Kurfürstl. Braunschweig-Lüneburgischen außerordentlichen Gesandten am kaiserlichen Hof zu Wien, in welcher Eigenschaft er unter drei Kaisern, Leopolds I., Josefs I. und Karls VI. diente. Diese überhäuferten ihn mit Gunstbeweisen. Leopold erhob ihn 1698 in den rittermäßigen Adelsstand u. verlieh ihm den Grafentitel. Karl VI. ernannte seine Nachkommen am zu Freiherren. Gelegentlich der Krönung des letzteren in Preßburg wurde dem Grafen Huldenberg auch die Ernennung zum ungarischen Magnaten zu teil. 1723 kaufte er vom Freiherrn von Stein die Rittergüter Ober- und Niederneukirch [Lausitz] für den Gesamtpreis v. 95 000 Thalern. Die Lieblingsbeschäftigung seiner Mußestunden bildete die Schriftstellerei; er korrespondierte mit George I of England, Leibniz, et al. Diese Sammlung hier fingiert am Titel eine dritte Auflage, die ersten zwei existieren jedoch nicht. 1731 verließ er Wien, um seine letzten Lebenstage in Neukirch zu verbringen.

Die Quintessenz seiner Reise

Humboldt, Alexander von. Ansichten der Natur mit wissenschaftlichen Erläuterungen. Band 1. [= alles erschien.]-Tübingen: Cotta, 1808. 12°. VIII, 334 pp. Halbleder d. Zt. mit Rückenvergoldung, leicht berieben u. bestoßen, Titel min. fl. u. mit mittigen Abrieb, wahrscheinlich Stempelrasur, wenige Seiten etwas braunfl. \$ 1800.-

Humboldt, Alexander von. Ansichten der Natur mit wissenschaftlichen Erläuterungen. 2 Bände in 1.-Stuttgart und Tübingen: J. G. Cotta'sche Buchhandlung, 1826. 12°. VI, 234 pp., [1], 200 pp., [1] Braunes Orig.-Halbldr. mit grünem Rückenschild. Gutes festes Exemplar, der Rücken minimal berieben. \$ 800.-

Final revision. For the first time with the second volume. Zweite verbesserte und vermehrte Ausgabe. Das Werk lässt deutlich den Einfluss von Goethes Naturauffassung, physikalische und botanische Gegenstände ästhetisch zu behandeln, erkennen. Die Beobachtungen hierzu hat Humboldt während seiner Amerikareise gemacht.-Löwenberg 181. Inhalt des ersten Bändchens: Ueber die Steppen und Wüsten, Ueber die Wasserfälle des Orinoco bei Atures und Maypures. Inhalt des zweiten Bändchens: Ideen zu einer Physiognomik der Gewächse, Ueber den Bau und die Wirkungsart der Vulkane in den verschiedenen Erdstrichen, Die Lebenskraft oder der Rhodische Genius (Aus den Horen).

With two rare early Photo Portraits

Kolenati, Friedrich August Rudolph. Beiträge zur Kenntniss der Phthirio - Myriarien. Aus den „Ho-rae Societatis Entomologicae Rossicae Fasc. II“ besonders abgedruckt. [Off-Print].-[Petropolis, 1862] 8°. [228 x 155 mm] 101 pp., [1] with 15 lith. plates. Contemporary half cloth, title stamped, else fine copy. EUR 600.-

Important description of fleas, rare Off-Print issue. Bound with **two Original- Photographs** (salt print) of the author. Friedrich August Rudolph Kolenati (1812 – 1864), Czech-German botanist and zoologist active primarily in Prague and Brno. Kolenati was born in Prague where he completed elementary school and high school, then after graduation from the Medical Faculty of Karls University as a student of the natural sciences, especially botany and entomology, he continued as an assistant in botany. In 1842 he moved to Russia as an assistant in zoology at the St Petersburg Academy of Sciences. From 1842-1845 he participated in explorations of the

Caucasus, ranging from the Azov Sea to Nagorno-Karabakh, and later conducted a survey of the lower Don River. In 1845 Kolenati returned to Prague, where he was named an Associate Professor of Natural History. In 1848 he played an active part in the revolutionary events of the time, for which he was subsequently arrested. After his release from prison, he gave lectures in mineralogy and zoology at the Prague Polytechnic Institute and worked as a professor of natural history at the Lesser Gymnasium. In 1848 he co-founded the Lotos Science Association, and was appointed full professor of natural science and technology at the Polytechnic Institute at Brno. In this department during his tenure significantly expanded its natural history collections, especially its mineralogical collections. He died while on a research trip to Praděd and is buried in Little Morávka. Kolenati was a member of the Royal Czech Society of Sciences, published more than 50 entomological works, and was also considered an expert on bats. His collection of beetles from the first half of the 19th century has become one of the foundations of the National Museum's entomological collection in Prague.

Kummer's attempt on Fermat's last theorem

Kummer, Ernst. Allgemeiner Beweis des Fermatschen Satzes, daß die Gleichung $x^\lambda + y^\lambda = z^\lambda$ durch ganze Zahlen unlösbar ist, für alle diejenigen Potenz-Exponenten λ , welche ungerade Primzahlen sind und in den Zählern der ersten $\frac{1}{2}(\lambda - 3)$ Bernoullischen Zahlen als Factoren nicht vorkommen; in: Journal für reine u. angewandte Mathematik 40 (1850), pp. 130-138 Contemporary Half-calf, over marbled boards, red edges, red label, little browned, but a fine copy. \$ 1200.-

First edition; Journal issue of his solution of Fermat's last theorem. In 1847, Gabriel Lamé outlined a proof of Fermat's Last Theorem based on factoring the equation $x^p + y^p = z^p$ in complex numbers, specifically the cyclotomic field based on the roots of the number 1. His proof failed, however, because it assumed incorrectly that such complex numbers can be factored uniquely into primes, similar to integers. This gap was pointed out immediately by Joseph Liouville, who later read a paper that demonstrated this failure of unique factorisation, written by Ernst Kummer. Kummer set himself the task of determining whether the cyclotomic field could be generalized to include new prime numbers such that unique factorisation was restored. He succeeded in that task by developing the ideal numbers. Using the general approach outlined by Lamé, Kummer proved both cases of Fermat's Last Theorem for all regular prime numbers. However, he could not prove the theorem for the exceptional primes (irregular primes) which conjecturally occur approximately 39% of the time; the only irregular primes below 100 are 37, 59 and 67. Ernst Eduard Kummer (1810 – 1893), German mathematician, who made several contributions to mathematics in different areas; he codified some of the relations between different hypergeometric series, known as contiguity relations. The Kummer surface results from taking the quotient of a two-dimensional abelian variety by the cyclic group $\{1, -1\}$ (an early orbifold: it has 16 singular points, and its geometry was intensively studied in the nineteenth century). Kummer also proved Fermat's last theorem for a considerable class of prime exponents (see regular prime, ideal class group). His methods were closer, perhaps, to p-adic ones than to ideal theory as understood later, though the term 'ideal' arose here. He studied what were later called Kummer extensions of fields: that is, extensions generated by adjoining an n th root to a field already containing a primitive n th root of unity. This is a significant extension of the theory of quadratic extensions, and the genus theory of quadratic forms (linked to the 2-torsion of the class group). As such, it is still foundational for class field theory.

An obscure Swan song about Psychology ?

Lamarck, Jean Baptiste Monet. Système analytique des connaissances positives de l'homme restreintes à celles qui proviennent directement ou indirectement de l'observation / par le Chevalier de Lamarck.- Paris : J. B. Bailliere, 1830. 8°. [2], 364 pp. Orig.-Brosch., little rubbed & used. \$ 1300.-

First edition, second printing. First published in 1820 at the author's cost at Belin, the unsold copy were again sold by Bailliere who took over the stock in 1830. Lamarck's last work including his philosophical outlook, and often overseen from recent researcher: "a rare book even more rarely consulted" [St. J. Gould]. "There has been great misunderstanding of Lamarck's concept of *sentiment intérieur*, or inner feeling, as a directing factor in the functioning and evolution of higher animals. Lamarck never believed that the giraffe has a longer neck because it consciously wanted one. Rather, he observed that higher animals were capable of voluntary motion which might become habit (as in a search for food or avoidance of danger) and of involuntary motion, or what we would call reflex action. Lamarck attempted to account for such behavior through the mechanism of the

sentiment intérieur, an internal physical feeling resulting from agitation of the nervous fluid. The brain of an animal with an internal physical need, such as hunger, would direct the nervous fluid so as to cause muscular motion to satisfy that need. If this action were constantly repeated, new organs would eventually result. On the other hand, a sudden, strong stimulus, such as a loud noise, would produce a reflex action because of a particular perturbation of the nervous fluid. The concept of the *sentiment intérieur* included not only the direct interaction with the physical world but also the more sophisticated level. It could be affected, particularly in human beings, by ideas or moral sensations. Such a view was in keeping with an extension of Condillac's sensation-nalist psychology and epistemology, especially as expressed by Cabanis and the Idéologues. Moral and aesthetic reactions were thus as physically caused as instinctive or reflex ones; the only difference was that between primary or secondary causation. It is not surprising that Lamarck has many references to Cabanis on the relationship between *physique* and *morale*. Lamarck felt he had provided a materialistic account for all the activities involving the nervous system, including instinct, will, memory, judgment, understanding, and imagination. He further developed these views in his last publication, *Système analytique des connaissances positives de l'homme* (1820).“ [Burlingame; in DSB VII, 584-94]

Tobias Mayer und Mason (from “Mason & Dixon”)

Mason, Charles [Tobias Mayer] Lunar tables [Mayer's lunar tables, improved by Mr. Charles Mason. Published by order of the Commissioners of Longitude]. [= Tabulae lunares; engl.] [London: Richardson, 1787] 4° [274 x 225 mm] 72 pp., missing first two leaves [incl. title, but never bound in, proof sheets ?], but this copy with handwritten corrections, most probably by Abraham Robertson (1751-1826). Contemporary Halfcalf, rubbed & soiled, stamped Radcliffe Observatory Oxford. Two ownership inscriptions at front fly: "A. Robertson Observatory, Oxford" & "S. P. Rigaud, March 16, 1836". \$ 1400.-

Charles Mason (Oakridge Lynch, Gloucestershire, April 1728- Philadelphia, October 25, 1786) was an English astronomer who made significant contributions to 18th-century science and American history, particularly through his involvement with the survey of the Mason-Dixon line, which came to mark the division between the northern and southern United States (1764-1768). After completing the boundary survey in America, Mason returned to Greenwich where he continued work on Mayer's Lunar Tables. He also contributed to the Nautical Almanac, working under Nevil Maskelyne, Astronomer Royal. Thomas Pynchon set him a monument in his novel: *Mason & Dixon*. Tobias Mayer (1723 - 1762) was a German astronomer famous for his studies of the Moon. In 1755 he submitted to the British government an amended body of manuscript tables, which James Bradley compared with the Greenwich observations. He found these to be sufficiently accurate to determine the moon's position to 5", and consequently the longitude at sea to about half a degree. An improved set was later published in London (1770), as also the theory (*Theoria lunae juxta systema Newtonianum*, 1767) upon which the tables are based. His widow, with whom they were sent to England, received in consideration from the British government a grant of £3000. Ownership: Abraham or Abram Robertson (1751 - 1826) was a Scottish mathematician and astronomer. He held the Savilian Chair of Geometry at the University of Oxford from 1797 to 1809. He superintended the publication of the works of Archimedes which were prepared for the press by Torelli (1792), and, with much effort, the second volume of Bradley's Greenwich Royal Observatory Astronomical Observations, commenced by Thomas Hornsby (1st ser., 1798 - 1805). Stephen Peter Rigaud (1774 - 1839) was an English mathematical historian and astronomer. He held the Savilian Chair of Geometry at the University of Oxford from 1810 to 1827, the Savilian Professor of Astronomy from 1827 to 1839.

The Leuven style of calligraphy

[Mennekens, Arnold; Calligraphy] Dictata Physicalia Magis principalia Sub doctissimo domino Arnoldo Mennekens dulreno, S.T.B.F., et Celeberrimi Paedagogii Porcensis Professore Primario. Scriebat Cornelius a Wyckersloot. Ultrajectinus. Anno 1653, Lovanii. Und : NICOLAS DU BOIS : Dictata Physicalia Minus Principalia Sub Doctissimo Domino Nicolas du Bois J.V.L. Nec Non Celeberrimi Paedagogii Porcensis Professore secundario. Scriebat anno 1653 Cornelius Wyckersloot. Ultrajectinus. Illustriertes Manuskript in lateinischer Sprache, braune Tinte auf Papier, sehr saubere, gleichmäßige Handschrift, datiert Louvain, 1653. (4) weiße Bl., 2 Titelblätter, (249) Bl. mit zahlreichen, teils ganzseitigen Tuschfederzeichnungen, (3) weiße Bl.; Titelblatt, 1 Kupfer, (116) Bl. mit zahlreichen, teils ganzseitigen Illu-

strationen, (6) weiße Bl., Blattgröße 19,9 x 15 cm. Blindgeprägter Pergamentband d. Zeit, Rücken u. Schließbänder erneuert. \$ 16000.-

Very rare handwritten commentaries on aristotelean physics; what makes this commentary special is not the written commentary, it is the calligraphy of the Leuven school. Within the text are calligraphed images as we known them from medieval illuminated manuscripts. Within letters we find strange figures, animals, flowers, obscure scenes, which transport a sort of exotic knowledge like in the paintings of Bosch. Shortly afterwards the art of calligraphy fell in deep decline. Johannes Gutenberg had invented the printing press based upon the Gothic lettering of the monks. This new technique allowed for faster printing of Bibles and threatened the métier of the monks. Although the use of the printing press spread worldwide, handwriting skills were still in high demand. The bulky printing press was too coarse for everyday letters, formal correspondence and invitations. As the arts flourish during Europe's Renaissance, so too did the art of calligraphy. Italians during this time invented the italic script, which became popular throughout most of Europe. But calligraphers were threatened once again with the advent of engraved copperplates in the 17th century which permitted the printing of finer lines more attuned to italic script. One hundred years later, artistic penmanship was in a steep decline. Die beiden hier vorliegenden Manuskripte sind Aristoteles -Kommentare : zu seiner Physik, den fünf Büchern der Metaphysik und den drei Büchern 'De anima' im ersten Band. Der zweite Band beginnt mit dem 'Tractatus in spheram', es folgen 'De Caelo', 'De Generatione et Corruptione', die 'Libri Meteorum' und schließlich der Kommentar 'In Metalla et Fossilia'. Sie sind darüberhinaus ebenso seltene, wie beeindruckende Zeugnisse für eine Besonderheit des akademischen Unterrichts in Leuven, der darin bestand, daß etwa ein Cornelius van Wijckersloot seine Kurse bei den Professoren Mennekens und Du Bois nicht einfach mehr oder weniger ordentlich mitnotierte. "Ces cours constituent les resultats de l'activite pedagogique des membres de l'institution, professeurs aussi bien qu'etudiants. Des les premiers cours du xve siecle, les etudiants doivent veiller eux-memes a transcrire les textes qui interviennent dans les cours et les exercices. En les recopiant, l'etudiant tente de faire coincider la fin des differents sous-ensembles avec la fin d'un cahier. Il advient toutefois un blanc qu'il remplit alors d'un dessin. Ainsi, se prend l'habitude d'introduire dans les manuels des images qui n'ont pas necessairement de rapport, ni logique ni de sens, avec la matiere textuelle, elles figurent la sans plus, sans autre fonction que celle de l'illustration. Le cours de l'etudiant C. Van Wijckersloot, immatricule en 1653, s'averer exemplaire a cet egard. De nombreux dessins realises a la plume, n'ayant pas de rapport avec la matiere enseignee, parsement ses notes de cours manuscrites et permettent, au fil des pages, de reperer un bateau a voile, une chasse a courre, des personnages grotesques jouant du tambour. Au debut du XVIIe siecle, apparait, concurrente de l'image chirographique, la gravure, parente de la typographie. Les etudiants l'achetent chez le libraire-imprimeur et l'insertent dans leurs manuels, ici encore sans necessairement prendre en compte une concordance avec le contenu textuel. Ces cours sont l'oeuvre d'etudiants. On imagine ceux-ci, assis dans leur chambree, a la lumiere d'une bougie peut-etre, peinant a recopier les textes, en latin, que les professeurs enseignaient sous forme de dictee ou de commentaires." (vergl. 'Collection de cours manuscrits de l'Universite de Louvain 1425-1797. Catalogue analytique'). Unser Manuskript ist also ein Pendant zum Logik-Kurs van Wijckersloots, den das Universitätsarchiv in Leuven besitzt. "La collection de 152 cours des 17e et 18e siecles s'est constituee progressivement a partir des annees 1940, les incendies d'aout 1914 et de mai 1940 ayant detruit les collections anterieures. Elle beneficia de la generosite de mecenés qui possedaient dans leur bibliotheque tel ou tel manuscrit de cours, patiemment copie par l'un de leurs ancetres, etudiant a l'universite de Louvain. Aujourd'hui, c'est dans les catalogues de libraires et dans les ventes publiques qu'il faut chercher ces precieux temoignages sur l'enseignement et la vie quotidienne de la cite universitaire. La collection conservee a l'UCL est d'une grande valeur et peu d'universites peuvent s'enorgueillir d'en posseder une aussi vaste. La plupart du temps, les cours d'ancien regime sont meles aux collections de manuscrits divers". (a.a.O.) (Zur zweimaligen Zerstörung der Löwener Bibliothek durch deutsche Truppen vergleiche ausführlich Schivelbusch, Die Bibliothek von Löwen, 1988. Auf Seite 73 dieser Arbeit findet sich die von dem Löwener Professor Bayot zusammengestellte Liste der im August 1914 zerstörten Handschriften unter denen 27 Vorlesungsmanuskripte von Löwener Professoren waren). Kollation : Band 1 : Doppeltes weißes Vorsatzblatt, (2) weiße Bl., gest. Titelblatt (Pet. Rucholle fec.) mit handschriftlich eingefügtem Text, 5 weitere gest. Titelblätter mit handschriftl. eingefügtem Text und Zeichnungen, 13 ganzseitige kalligraphische Titelblätter mit reicher figürlicher Staffage, 6 kalligraphisch gestaltete, mit Figuren verzierte Überschriften und Buchstaben, 2 ganzseitige Zeichnungen mit Personen in Landschaften, 6 kleine Illustrationen im Text und ein ganzseitig gezeichnetes Wappen. Band 2 : 1 Kupferstich, 3 gest. Titelblätter mit handschriftl. eingefügtem Text und Zeichnungen, 4 ganzseitige kalligraphische Titelblätter mit reicher figürlicher Staffage, 1 kalligraphisch gestaltete, mit Figuren verzierte Überschriften, 3 ganzseitige Zeichnungen mit Personen in Landschaften, 1 kleine Illustrationen im Text und eine ganzseitige Schlußzeichnung. Die Bl. 128 bis 131, 217 und 255 bis 257 sind unbeschrieben. - Die Bl. 56 und 71 mit kl. Randausschnitt, sonst von hervorragender Erhaltung.

Ludwig's 'philosophia botanica'

Ludwig, Christian Ludwig. Institutiones Historico Physicae Regni Vegetabilis Praelectionibus Academicis Accommodatae. Editio altera aucta et emendate.- Lipsiae [Leipzig] apud Joh. Fridericum Gleditsch, [1757]. 8° [195 x 115 mm] [14], 264 pp., [10] Later half calf, marbled boards, speckled edges, gilt lettering and ownership stamp on spine. \$ 900.-

Second enlarged edition [1742 first ed.] of the 'philosophia botanica' by the German physician & botanist Christian Gottlieb Ludwig (1709-1773). From 1728 he studied medicine and botany at the University of Leipzig, but due to lack of funds he was forced to discontinue his studies and took a job as a botanist on an expedition to Africa under the leadership of Johann Ernst Hebenstreit (1703-1757). In 1733 he resumed his studies, and in 1736 gave lectures at Leipzig. In 1737 he earned his doctorate under Augustin Friedrich Walther (1688-1746), and in 1740 became an associate professor of medicine. At Leipzig he would subsequently become a full professor of medicine (1747), pathology (1755), and therapy (1758). Ludwig is remembered for his correspondence with Carl Linnaeus, particularly regarding discussions of latter's classification system. The book here contains a key to all genera of the plant kingdom. In view of the use of the Tournefortian nomenclature, the 1757 edition is important because of the validation of names abandoned by Linnaeus. This edition consists of 575 concisely worded paragraphs dealing with the whole of botany, including anatomy and nutrition. With respect to the Linnaean influence, in paragraph 252 he discusses the nomina trivialia: "The essential character of the species, as expressed by the phrase name, is often difficult to establish. For this reason botanists often give short names to species based on accidental characteristics. Linnaeus calls these names 'trivialia' in his Species plantarum and puts these names in the margin, a practice which is quite convenient for the user. If we admit names of lower genera which express only rarely the essence of the plant and which are often arbitrary, we must admit such names also for species." Ludwig, like Linnaeus, share a certain pragmatism in classifying. His concise definitions, the keys in his works, the artificial system, all betray the classifier rather than the biologist. His work duplicates in many ways that of Linnaeus, and it never caught on precisely because of this. Ludwig's active period ended around 1760; he did not produce a Species Plantarum, nor did he introduce the binary system into Germany. The result was that his system of classification, in other respects so useful and clear, became superfluous. His last important botanical publication was the Ectypa vegetabilium, a work on useful plants, produced by means of the technique called Naturselbstdruck (nature-printing)." [Stafleu, Linnaeus 245].- Stafleu/C. 5065; Stafleu. Linnaeus 242-45; Meusel VIII, 393-99; OCLC:

The Art of Astrology

Marstaller, Gervagius [ed.] Artis divinatricis, quam astrologiam seu judicariam vocant, encomia et patrocinia ... Theoremata Gervasii Marstalleri... quibus... ostendit quidnam sit de arte divinatricis quam astrologiam seu judicariam vocant, sentiendum; Praefatio Philippi Melanthonis in lib. Jo. Schoneri de Judiciis nativitatum; Pars praefationis ejusdem in Sphaeram Jo. ds Sacrobosco; Pars praefationis ejusdem in Tabulas resolutas Schoneri; Oratio Milichii de Astrologia. Pars praefationis Schoneri in canones Weneri de mutatione aurae; Verbe Pitati ex Ephemeridibus desumpta; Praefatio Joachimi Helli in Isagogen Astrologicam Jo. Hispalensis; Assertio Eberhardi Schleusingeri; Tria priora capita primi lib. Quadrupartiti Ptolemaei, Trapezontii libellus; Dialogus Joviani Pontani] [Edited and preface by Gervasius Marstallerus].- Paris: Chr. Wechel, 1549. 178 pp., [2] Halblederbd. d. 18. Jhdts., berieben und bestoßen, etwas gebräunt. [bound with:]

Bordini, Giovanni Francesco. Quaesitorum, et responsorum mathematicae disciplinae ad totius Universi Cognitionem spectantium Chilias: Ex quibus, quae ad sph[er]a[e], Cosmographiae, Geographiae, Theoricarumq[ue] planetarum, aliarumq[ue] affinium scientiarum vniuersalem attinent contemplationem, exactissimè, & brevis-simè explicantur... Bononiae [Bologna]: A. Benatius, 1573. 195 leaves, [1]. \$ 5000.-

An useful collection of „praises and defenses” of astrology. It presents a good crosscut through pro-astrological sentiments during the 16th cent. A complete discussion of the different tracts is given in Thorndike. Von Marstaller herausgegebene interessante Sammelausgabe zu den Vor- und Nachteilen der Astrologie. Enthält: **Heller.** Praefatio in Isagogen astrologicam Jo. Hispalensis; **Marstaller.** Theoremata quibus... ostendit quid sit de arte divinatricis quam astrologiam seu judicariam vocant sentiendum ; **Melanchthon.** Praefatio... in lib. Jo Schoneri de Judiciis nativitatum; **Milich.** Oratio de astrologia; **Pitatus.** Verba ex Ephemeridibus desumpta; **Pontano.**

Dialogus, Franciscus Pudericus, Pardus; **Ptolemaeus**. Tria priora capita primi lib. Quadriparti; **Schleusinger**. Assertio contra calumniatores astrologiae; **Schöner**. Pars praefationis... In Canones Jo. Veneri de mutatione aerae. Gervasius Marsteller (1573-1578) hat sich am 17. Oktober 1537 an der Universität Freiburg im Breisgau immatrikuliert, erwarb sich 1539 das Baccalaurat und bezog am 18. Oktober 1541 die Universität Wittenberg als Student der Medizin, als Schüler des Philipp Melanchthon wurde er am 4. September 1544 Magister der Philosophie, am 13. Juli 1546 verließ er die vom Krieg bedrohte Stadt, wechselte am 28. August 1546 an die Universität Heidelberg, absolvierte dann eine Studienreise an die Universitäten in Spanien, Frankreich, England und Italien. In Padua hat er 1552 zum Doktor der Medizin promoviert, hatte 1553 in Braunschweig eine Praxis eröffnet, war 1570 Professor der Medizin an der Universität Jena, und ging bald darauf als Leibarzt des Herzogs Wilhelm von Braunschweig nach Celle. (vgl. Zedler, Band 19, Bl. 930; Johann Jakob Günter: *Lebensskizzen der Professoren der Universität Jena seit 1558- bis 1858*. S. 118; Melanchthon Briefwechsel) II.) In Lehrsätzen vorgetragenem Wissen über alle Bereiche der mathematischen Disziplinen, jedoch ohne Abbildungen. Giovanni Francesco Bordini (1536-1609), Erzbischof von Avignon.- EDIT16 CNCE 7060 (Variant „A“); Adams-B2481

Russian Book-Illustration from the 1920's

Masjutin, Wassily Nikolajevitch. 30 Woodblocks for Printing, Originals from the artist. Mainly for printing portraits: the blocks show self-portraits, Dostojewski, Puschkin, Remisov, Sajzew, A. Tolstoi, A. Bely, Chodassewitsch, Conrad Veidt, H. H. Ewers, Albert Steinitz, Valentina **Masjutin**, Marina **Masjutin**. Together with two original artist stamps [signature & monogram] all from the 1920's. The blocks in different sizes: from 320 x 222 mm to 50 x 50 mm. [30 Original-Holzdruckplatten aus dem Nachlass. Zumeist Portraits aus den 20-er Jahren, mehrere beidseitig gearbeitet, in versch. Formaten (320 x 222 mm to 50 x 50 mm), insgesamt 37 Darstellungen. Vorhanden sind u. a. 2 Selbstportraits, Portraits von Dostojewski, Puschkin, Remisov, Sajzew, A. Tolstoi, A. Bely, Chodassewitsch, Conrad Veidt, H. H. Ewers, Albert Steinitz, Valentina **Masjutin**, Marina **Masjutin** u. weiteren Personen. Ferner 8 Druckplatten aus der Folge "Die Brüder Karamasow" 2 Orig.-Stempel von **Masjutin**, einer davon der von ihm selbst gefertigte Signaturstempel.] \$ 9000.-

A rare survivor; more than thirty original woodblocks for printing woodcuts, mainly showing portraits of Russian writers & artists, including two self-portraits and portraits of his wife all made in/ out of the 1920's. **Wassily Nikolajevitch Masyutyn [Masjutin]** (1884 Chernihiv - 1955 Berlin), Ukrainian printmaker, sculptor, medallist & art historian, active in Germany. He studied at the Moscow School of painting, sculpture and architecture under Vasyli' Maté (1856-1917). After the 1917 revolution he taught briefly at Ukhutemas (higher art and technical studios), moving to Berlin in 1921. He frequently sent works back to the Ukraine to participate in the exhibitions of the Association of Independent Ukrainian Artists (anum), of which he became a member when it was formed in Lwów in 1931. His early graphic work includes etchings treated as symbolic fantasies bordering on the grotesque. He also produced a cycle of engravings, the seven deadly sins, and illustrations to Aesop's fables and to the works of Gogol and Balzac, Dostojewsky & Pushkin. He sculpted a bust of Balzac and produced an entire series of commemorative medallions of the Cossack leadership, Medieval princes and contemporary cultural figures, a total of 63 portraits rendered with historical accuracy. Examples of his work are in the Pushkin Museum of Fine Arts in Moscow. He also contributed to art pedagogy with his manual on engraving and lithography (1922), and contributed articles to the art journal, mystetstvo (art), published in Lwów. He died in his exile in Berlin in 1955, where this collection came from.

A second set comprises 22 original woodblocks to an unknown work of his time in Moscow (1919), also from the property of the artist. (see our Pasadena list)

„Dem mittelalterlichen Stoff des Puschkinschen Dramas [Der Goldene Hahn] hat Wassilij Masjutin (1884-1955) in der expressiven Formvereinfachung seiner derb geschnittenen, schwarzflächigen Großformat-Holzsnitte die eigenwilligste und modernste graphische Gestalt gegeben. Wie viele Künstler der bewegten, innovativen ersten Dezennien des 20. Jahrhunderts so hat auch Masjutin, der Graphiker, Maler, Bildhauer, Bühnenbildner und Schriftsteller war, seine schöpferischen Intentionen in den unterschiedlichen Medien verwirklicht. Eine zentrale Rolle in seinem Schaffen spielten jedoch von Anfang an die graphischen Verfahren (Radierung, Lithographie, Holzschnitt und Holzstich), die von ihm zur Gestaltung einzelner Blätter oder thematisch gebundener Blattfolgen, vor allem aber zur Buchillustration eingesetzt wurden und über deren Ausdruckswerte und handwerkliche Kunst er zwei Schriften (Berlin, 1922) veröffentlicht hat. Masjutins Illustrationswerk umfaßt ein Korpus von nahezu 50 Büchern - in der Mehrzahl Texte russischer Schriftsteller der klassischen Periode - die er, von wenigen Arbeiten abgesehen, in der Zeit seines Berliner Exils (1921-1955) im Auftrag deutscher oder in Berlin

ansässiger russischer Verlage bildnerisch gestaltete. Dieses umfangreiche buchgraphische Werk stellt, wie den Berichten über das traurige Schicksal des immensen Masjutin'schen Nachlasses zu entnehmen ist, dennoch nur einen Teil seines vielgestaltigen künstlerischen Vermächtnisses dar. ... Masjutin gehörte zu jenen Künstlern, die ein illustriertes Buch als Gesamtkunstwerk betrachteten, das nicht nur eine dem ‚Geist des Textes‘ angemessene und seinen ‚Grundgedanken‘ widerspiegelnde bildliche Umsetzung aufweisen sollte, sondern in dem auch die ‚Orchestrierung‘ stimmem mußte: Schrift, Textgestaltung, Verteilung ornamentaler Elemente, Papier - überhaupt alles, was geeignet war, durch seine Wirkung den Eindruck des Textes zu verstärken." [Baruna Steinke] [Bodo Zelinsky. Russische Buchillustration 110-114], Oestmann, K. Wassili Nikolajewitsch Masjutin (1884-1955). Das Illustrationswerk. Lübeck, Kunsthaus, 1987.

First Chinese Type – Latin Dictionary

Mentzel, Christian. Sylloge Minutiarum Lexici Latino-Sinico-Characteristici, observatione sedulâ ex auctoribus & Lexicis Chinensium characteristicis eruta, inque specimen primi laboris ulterius exantlandi erudito & curioso orbi exposita.- Norimbergae [Nürnberg], anno 1685. 4° [200 x 160 mm] 20 leaves / Bll. [a-a4, b-e4] Contemporary papercard boards, browning due to paper quality. sold

Erste Ausgabe des kleinen lateinisch-chinesischen Wörterbuchs. Christian Mentzel (1622-1701), deutscher Arzt, Botaniker u. Sinologe, studierte an den Universitäten zu Frankfurt/Oder und Königsberg Medizin u. Naturwissenschaften. Anschließend unternahm er eine Reise durch Polen, die Niederlande, Italien und Malta und wurde 1654 in Padua promoviert. Nach seiner Rückkehr ließ er sich als praktischer Arzt in Berlin nieder, wo er 1658 vom Kurfürsten Friedrich Wilhelm zum Leibarzt und kurfürstlichen Rat ernannt wurde. Mentzel beschäftigte sich vielfältig mit Botanik. Seine Hauptwerke waren der *Catalogus plantarum circa Gedanum sponte nascentium* und das *Lexicon plantarum polyglottum universale*, das erstmals 1682 in Berlin erschien. Außerdem beschäftigte er sich im kurfürstlichen Auftrag als Nachfolger des Sinologen Andreas Müller mit der chinesischen Kultur, Geschichte und Sprache und pflegte Kontakte zum Missionar Philippe Couplet. Er gab mit der *Sylloge Minutiarum Lexici Latino-Sinico-Characteristici* (Nürnberg 1685) das erste chinesische Zeichen-lexikon in Europa heraus, 1696 einen umfangreichen Abriss der chinesischen Geschichte unter dem Titel *Kurtze Chinesische Chronologia oder Zeit-Register/ Aller Chinesischen Käyser: Von ihrem also vermeinten Anfang der Welt bis hieher zu unsern Zeiten/ des ... 1696sten Jahres; In einer richtigen Ordnung von Jahren zu Jahren/ ... auch mit zween Chinesischen erklärten Tafeln der vornehmsten Geschichten von ihrem Anbeginn der Welt/ Gezogen aus der Chineser Kinder-Lehre Siao Ul Hio oder Lun genandt*, das dem Kaufmann und Reisenden Evers Ysbrants Ides (1660–1708) gewidmet ist.

Oriental Dream

[Minutoli, Heinrich von.] Reise zum Tempel des Jupiter Ammon in der Lybischen Wüste und nach Ober-Aegypten, mit Beilagen begleitet von E. H. Toelken. Text- und Tafelband.- Berlin: Rucker, 1824. Mit kolorierter lithographischer Karte und 38 (11 kolorierten bzw. teilkolorierten) lithographischen Tafeln. Die losen Tafeln in Papp-Mappe der Zeit mit Bindebändern, 66 x 51 cm. XL, 448 Seiten. Interims-Pappband, 32 x 25 cm. Contemporary interim cardboard and loose plates in contemporary cardboard portfolio (both with signs of wear). Text volume untrimmed and unopened. Plates on heavy hand made paper, remarkably fresh and clean. Mint copy. \$ 30.000

First edition. The early lithographed plates with illustrations of temples, ruins, obelisks, reliefs, of the Nile, the sectional view of a pyramid with its passages, with reproductions of Egyptian paintings, of temple construction, images of burial offerings, mummies, sarcophaguses etc. Without the addendum of 1827. Erste Ausgabe. - Engelmann 168. Gay 2516. Ibrahim-Hilmy II, 36. Henze III, 493. Heinrich Menu Freiherr von Minutoli (1772 Geneva – 1846 Lausanne) was a Prussian Generalmajor, explorer and archaeologist. Minutoli was highly

interested in ancient art and, after prince Carl had reached adulthood, Minutoli undertook numerous foreign trips. He was entrusted in 1820 with the direction of an expedition that until August 1821 was paid for by the Egyptian government. The scientists Wilhelm Friedrich Hemprich and Christian Gottfried Ehrenberg, the architecture professor Liman and the Orientalist Scholz, among others, accompanied him. Minutoli's collections, of which a large part was lost in a shipwreck, were purchased by the king of Prussia for 22,000 talers and formed the foundation of the Egyptian Museum in Berlin. Minutoli was appointed a member of the academy of the sciences, and soon retired (with the rank of Generalleutnant) to an estate in Lausanne, where he died in 1846. Die frühen lithographischen Tafeln gedruckt auf schwerem Bütten, mit Darstellungen von Tempeln, Ruinen, Obeliskten, Reliefs, des Nils, vom Querschnitt einer Pyramide mit ihren Gängen, mit Wiedergaben ägyptischer Malereien, vom Tempelbau, Abbildungen von Grabbeigaben, Mumien, Sarkophagen u. v. m. Ohne den Nachtrag von 1827. Einband und Mappe außen berieben und bestoßen. Textband unbeschnitten und unaufgeschnitten. Die Tafeln in exzellentem, frischen und makellos sauberen Zustand.

First edition of his *magnus opus*

Müller, Johannes [Peter]. Handbuch der Physiologie des Menschen für Vorlesungen. Erster [und] Zweiter Band. Mit Königlich Württembergischen Privilegien. 2 in 3 Bdn. Coblenz: Verlag von J. Hölscher, 1833 - 1840. 8° [227 x 138 mm]. [4], VIII [= Vorrede, 1833], [= III-IV; Inhalt], 368 pp., [253], 354-390 [= 369-406 pp.]; [4], XVI, [407] - 852 pp.; VI, 423 - 867 (+ 1) pp.; [6], [1] - 248 pp., [6], 249-502 pp.; [4], [503-780 pp.], 1 lith. Tafel. Mamorierte Pappbde. d. Zt., aufgesetztes R.schild, Band 3 im Stile der ersten Bände restauriert, durchgängig etwas braun- u. stock-fleckig, im zweiten Teil von Band 1. einige Seiten durch Wurm-gang beschädigt, minimaler Textverlust. Insgesamt gutes Exemplar. \$ 1800.-

Rare set in first edition, with second title of the first vol. dated 1833. Johannes Peter Müller (1801 - 1858), german physiologist, working as Prof. at Bonn Univ., later in Berlin. Müller was the foremost physiologist of his day. He wrote a compendium of physiological knowledge, the *Handbuch der Physiologie des Menschen* (1833-1840), which served as the primary reference text in physiology for some time. In it may be found not only a presentation of the state of knowledge of physiology of the time but also many of Müller's speculations, theories, research results, and conclusions. Müller shares with von Haller the appellation "father of experimental physiology". The fifth book of the *Handbuch* deals with the senses and contains the statement on the specificity of nerve energies. Although not entirely original with Müller, it was Müller who gave the principle a clear and precise formulation and made it known through his *Handbuch*. It sta that we are not directly aware of objects themselves but of the quality of nerve activity that is triggered by the objects. There are five kinds of nerves, each conveying to the mind its own characteristic reality and not that of any other. The locus of specificity lies in the brain, however. Müller's doctrine led later formulations such as the color vision theories of Helmholtz and Hering, all based on the notion of nerve-fiber specificity and the discovery of sensory spots in the skin. It was the most important contribution to physiology during the early nineteenth century. Philosophically, he stated that the nature of our knowledge was categorically tied to the nature of the bodily organs through which knowledge is acquired. It was an important contribution to physiological psychology. By placing the dimensions of experience in the nerves, that is, a material substrate, it furthered the removal of mind from the realm of metaphysics and into the realm of physical phenomena. The sixth book of Müller's *Handbuch* deals with a variety of psychological subjects, such as memory, thought, temperament, and sleep. Müller discussed hearing at length and made some sound conjectures concerning the function of the middle and inner ear, as well as some erroneous ones. In some respects Müller was old-fashioned and believed in vital forces and the instataneous transmission of nerve impulses, for instance, but he was also an inspiring teacher, and many physicians, physiologists and psy-chologists, who later acquired fame themselves, had studied with him. Also bound in the second section of vol. 1 in third edition. The volumes include Vol. 1, first section [1833], vol. 1, second section [1834], vol. 1, second section in third edition [1838], vol. 2, first section [1837], vol. 2, second section [1838], vol. 2, third section [1840].- Zusne 308 f.; Waller 6730; Garrison-M. 610.; Norman 1568.

[Naturforschende Freunde Berlin] Der Gesellschaft Naturforschender Freunde zu Berlin Neue Schriften. 1. – 4 Bd. [= all.].- Berlin: auf Kosten der Gesellschaft, 1795 - 1803. 4° [240 x 200 mm] XII, IV, 380 pp., [4] with 4 fold. plates (partly col.); XXVI, 458 pp., with 8 plates (partly col.), XII, 612 pp. with 7 plates (partly col.); XII, 428 pp. with 7 plates. Contemporary

paperboards, red label, rubbed soiled, inside some browning & spotting, title stamped. Plates clean. \$ 4000.-

The Berlin Society of Friends of Natural Science, (Gesellschaft Naturforschender Freunde zu Berlin) was founded as a scientific society in 1773. Apart from the Danziger Naturforschenden Gesellschaft, it is the oldest private natural society in Germany. At its foundation it had numerous prominent and influential members who were experts in the natural sciences - biologists in particular. **Content: I.) Wangenheim.** Naturgeschichte des Preuss.-litthauischen Elch; **Lampe.** Von den Waidaschen.. oder Caschubasche; **Chladni.** Beyträge zur Beförderung eines bessern Vortrages der Klanglehre [und] Beobachtungen über die durch Brennen ... hervorzubringenden Töne; **Walbaum.** Beschreibung des braunen Rüsselträgers (*Viverra narica* Linn.); **Seetzen.** Naturgeschichte der Herrschaft Jever; **Bindheim.** Mineralogische Nachrichten von Daurien; **Hacquet.** Mineralogische Rhapsodien; **John.** Beschreibung einiger Affen aus Kasi; **Karsten.** Buttermilcherz; **Karsten.** Mineralogische Beschreibung der Gegenden um Bennstedt; **Herbst.** Bemerkungen über eine ostindische Landschildkröte; **Bode.** Gedanken über die Austheilung der Nebelflecke und Sternhaufe, ... **Walbaum.** Beschreibung der Furchichten Riesenschildkröte; **II.) Stütz.** Physikalisch-mineralog. Beschreibung des Gold- und Silberbergwerks bei Nagy-Ag in Siebenbürgen; **Willdenow.** Beiträge zur Kenntnis einiger seltenen, wenig bekannten Pflanzen; **Olof Swar[t]z.** Beschreibung einer neuen Farrenkraut-Gattung (*Vittaria*); **de Luc.** Bemerkungen über elektrische Bewegungen; **Geusan.** Mineralogische Beschreibung einer kleinen Suite von Fossilien, aus dem Sandomirischen; **Hahn.** Bemerkungen über die Entstehung der Feuerkugeln; **Bindheim.** Ueber das sibirische Kupfergrün, etc. **Gersdorf.** Ueber elektrische Versuche; **Widenmann.** Geognostische Bemerkungen über einen Theil des Schwarzwald-Gebirges; **Karsten.** Die mineralogische Beschaffenheit der Steinkohlenflötze; **Chladni.** Ueber drehende Schwingungen eines Stabes; **Cramer.** Mineralogische Anzeige über ein paar neuerlich aufgefunden große Merkwürdigkeiten in Eisensteinen; **Hermbstädt.** Chemische Versuche ... Zuckers; Nachruf auf **Reinhold Forster** (414-439) **III) Wrede.** Hagelableiter; **Weiss.** Hagelableiter; **Habel.** Naturgeschichte der Stadt Wiesbaden; **Ritter.** Warme Quellen von Wiesbaden; **Gmelin.** Beschreibung und Zerlegung des Olivins; **Lehmann.** Gewebe der Kreuzspinne; **von Buch.** Geognostische Beschaffenheit von Pergine; **Hermbstädt.** Versuche über die Gerbung des Leders; **Le Beck.** Beschreibung des *Delphinus gangeticus*; **John.** Beschreibung des *Uranoscopus Lebeckii*; **Karsten.** Mineralogische Bemerkungen über das Arseniksaure- Kupfer; **Klaproth.** Chemische Untersuchung vorstehender Erze; **Klug.** Absonderung einiger Raupentödter; **Buch.** Geognostische Uebersicht der Gegend von Rom; **Mühlenberg/ Willdenow.** Kurze Bemerkungen über die in der Gegend von Lancaster (Pennsylvania) in America wachsenden Arten der Gattung *Juglans*, *Fraxinus* und *Quercus*; etc. **IV.) Hahn.** Beschaffenheit der Sonne und der Lichtmaterie; **Link.** Pflanzengattung *Seilla*; **Laspeyres.** Glossaten; **Huth.** Sonnenfackeln und Sonnenflecken; **Domeier.** Nachricht von einem in Nordamerika gefundenen Gerippe eines Vierfüßlers, bisher Mammoth genannt; **Herbst.** Beschreibung höchstseltener Heuschrecken; **Lehmann.** Ueber einen Riesen-Hay *Squalus Maximus*; **Bode.** Ueber die in den Jahren 1801 und 1802 gemachten neuen Entdeckungen...; **Willdenow.** Botanische Bemerkungen auf der Hin- und Rückreise von Trankenbar; **Huth.** Voltaische Säule; **Mühlenberg.** Ueber die Nordamerikanischen Weiden; **Klaproth.** Untersuchung des Natroliths; **Weiss.** Ueber die Gebirgsarten der sächsischen Schweiz; **Trommsdorff.** Chemische Untersuchung des Arsenikwasserstoffgases.

Nau, Bernhard Sebastian [Hrsg.] Neue Entdeckungen und Beobachtungen aus der Physik, Naturgeschichte und Oekonomie. Erster Band [= all publ.]- Frankfurt am Main: in der Hermannischen Buch-hdl., 1791. 8° [185 x 110 mm] XII, 364 pp. with 4 tables, and 7 fold. plates (of which 4 are coloured). Contemporary halfcalf, two labels, red edges, title unfortunately heavily stamped, else a fine copy. sold

Rare periodical, only this volume published. It begins with: Ackermann. Ueber die Alpenvölker, Fischer. Beschreibung eines Erdsystems [mechanical Globus] im Hurterschen Kabinet [with a plate showing the instrument] and Beschreibung eines neuen ... Nivellierinstrument [with plate], an essay on natural history by Nau with four coloured plates showing **snakes [Coronella austriaca], lizard [Lacerta Zeulonica] and a tucan**, chapters on Rhine vine, a mineralogical essay on Syenit, et al.; "Bernhard Sebastian von Nau (1766-1845), Kameralist. In seiner Vaterstadt vorgebildet, habilitirte er sich schon mit 20 Jahren als Privatdocent an der dortigen Universität mit einer naturgeschichtlichen Arbeit über die Fische, wurde 1788 a. o. Professor an der Cameralfacultät, 1791 o. Professor der Polizeiwissenschaft und Statistik an der historisch-statistischen Facultät und übernahm 1793 auch noch die Professur der Naturgeschichte. In dieser ersten Periode seiner lehramtlichen Thätigkeit war Nau vornehmlich mit Abfassung von Lehrbüchern für Landwirtschaft, Forstwissenschaft u. Bergbauwissenschaft beschäftigt, in welchen dem naturgeschichtlich-descriptiven Teile eine besondere Aufmerksamkeit gewidmet ist. Er wird 1790 kurfürstlicher Hofgerichtsrath, 1795 und 1796 Regierungscommissär beim österreichischen Militärgouvernement, Mitglied der Bergcommission und Beisitzer des Directoriums des Armeninstituts. 1797

nimmt er als Legationssec-retär am Rastatter Congreß theil und scheidet damit vom Lehramte aus. Einen Ruf des französischen Ministe-riums als Professor der Naturgeschichte nach Mainz lehnte er ab, übernahm dagegen 1810 das Präsidium des Landraths, wurde Mitglied und Secretär der Landstände des Großherzogthums Frankfurt, 1811 auch Director aller Zuckerfabriken. Noch einmal im J. 1820 eröffnete sich für Nau die Gelegenheit auf die Lehrthätigkeit zurückzugeben, als er zum Mitglied der baierischen Akademie der Wissenschaften und ersten Conservator der mineralischen Sammlungen gewählt wurde, womit ihm eine Professur der Naturgeschichte verbunden werden sollte. Aber Anhänglichkeit an seine Vaterstadt und an die liebgewordene praktische Wirksamkeit führten ihn schon 1821 wieder auf seinen Posten nach Mainz zurück. Seinen Verdiensten um die Naturgeschichte gaben die Gelehrten in ihrer Weise Ausdruck; Martins nannte nach ihm eine Familie der Bromeliaceen „Nauia caulescens“ und Kaup in Darmstadt eine Species urweltlicher Thiere „Dorcatherium Naui“.

From the cartographer of the Mississippi

Nicollet, Joseph-Nicolas ; Brousseau, S.M.B. [Colonel]. Mémoire sur la mesure d'un arc du parallele moyen entre le pole et l' équateur, lu ... - Paris : Impr. Huzard-Courcier, [1826]. 8° [220 mm]. 46 pp. with one fold. lith. map. New wrappers, else fine. Handwritten dedication on title. \$ 1200.-

Fine dedication copy to the astronomer Lindenau, follower of Zach at Gotha Observatory. Very rare work on the measurement of an parallel arc on commission of the Bureau de Longitude. Joseph Nicolas Nicollet (1786 Cluses – 1843 Washington) was a French geographer, astronomer, and mathematician known for mapping the Upper Mississippi River basin during the 1830s. Nicollet led three expeditions in the region between the Mississippi and Missouri Rivers, primarily in Minnesota, South Dakota, and North Dakota. Before emigrating to the United States, Nicollet was a professor of mathematics at Collège Louis-le-Grand, and a professor and astronomer at the Paris Observatory with Pierre-Simon Laplace. Nicollet rapidly made a fine reputation for himself both as a teacher and as a mathematical astronomer at the Observatory, receiving the Legion of Honour for his excellent work. His publications were all in the field of cartography and mathematical astronomy. Using his mathematical skills, he applied the principles of mathematical probability to the stock market believing that he could make his fortune. His probability considerations did not allow for the French Revolution of 1830 which caused the stock market to crash. Nicollet was ruined financially and, perhaps equally as bad in his eyes, he felt his mathematical skills would no longer be respected. He decided to go to the United States. His aim was to make a name for himself, using his considerable scientific skills in cartography and geodesy, and then return to France with his reputation restored. He certainly achieved the first of these aims, but he never returned to France. Although the stock market crash was the main reason for Nicollet setting out for the United States, there were other more minor reasons. Nicollet had lost his patron when Laplace died in 1827 and he had quarrelled with François Arago who was becoming an increasingly important figure at the Observatory. In 1832 Nicollet sailed to North America and went first to Washington where he met those members of the government who were interested in carrying out scientific surveys. Immediately Nicollet began scientific work with the French born and educated Augustine Verot, Professor of Mathematics and Natural Philosophy in St Mary's College, Baltimore, the first Roman Catholic seminary to be established in the United States. In the Botanical Garden of the College, they observed a transit of Mercury on 4 May 1832, a solar eclipse on 26 July 1832 and made further observations, the last recorded being on 28 November 1832. Ferdinand Rudolph Hassler was conducting the United States Coast Survey and he agreed to support Nicollet's explorations. Nicollet did not spend longer than necessary in Washington for he wanted to plan his scientific work and to do this he needed to travel. For three years he travelled through the southern states and although his route looks somewhat random, there was purpose in where he went. Nicollet's maps were among the most accurate of the time, correcting errors made by Zebulon Pike, and they provided the basis for all subsequent maps of the American interior. They were also among the first to depict elevation by hachuring and the only maps to use regional Native American place-names. Nicollet's Map of the Hydrographical Basin of the Upper Mississippi was published in 1843, following his death.- Pogg. II, 286; OCLC: NY Public; Madison-Wisconsin; not COPAC.

Planck's last steps towards quantum theory

Planck, Max. Über irreversible Strahlungsvorgänge. I., III., IV. und V. Mittheilung.- Berlin: Akademie d. Wissenschaften, 1899-1900. 4°. New halfleather. Little unfresh. \$ 2400.-

First editions of this very rare ensemble of four communications regarding , Journal-issue, privately bound. With the Kirchhoff-Wien-Boltzmann work as a background, Max Planck began his attack on the black-body problem in 1897. He labored under the erroneous impression for some time that Wien's formula was the only one which

harmonized with the second law of thermodynamics. The experiments on black-bodies due to Lummer and Pringsheim, Rubens and Kurlbaum forced him from that position; these researches are taken into account in the present series and are duly acknowledged. - Interlibrum 258,28; Akademie 33,35,38,39.

[Pötzsch, Christian Gottlieb] C. G. Pötzschens ausführliche mineralogische Beschreibung der gegend um Meißen. Mit Kupfern.- Dresden, in der Waltherischen Hofbuchhandlung, 1777 8° [194 x 115 mm] [12] Bl., 138 pp., [2], with a map [Plan von Meißen] u. 3 [on two sheets] gefalt. Kupferst. Little later paper covered boards, with red label. \$ 2400.-

First edition of this mineral description of Meißen, near Dresden / Saxony. Christian Gottlieb Pötzsch (1732-1805) was director of the natural history cabinet of the saxonian emperor. Later he worked as finance director. Pötzsch war seit 1766 Aufseher bei der kurfürstlichen Naturaliensammlung in Dresden.- Lit.: Pogg. II, 479; not in Schuh, Paul-Gerhard Franke, Adolf Kleinschroth. Kurzbiographien--Hydraulik und Wasserbau (1991). 89 f.-KVK: Augsburg, München, Nürnberg, Berlin, Rostock, Jena, Halle, etc; COPAC: Bristol, BL London, Imperial College, OCLC: Bizzell Memorial, Urbana.

Moon photographs in phototypie

Prinz, Wilhelm. Agrandissements de Photographies Lunaires. Uccle, Juillet 1894. Imp.Folio [650 x 500 mm] [2], 3 plates [= 1 leaf of text & 3 phototypies by Jos Maes, Anvers]. Loose leafs in contemporary black roan folder, soild, spines torn, margins of leafs worn. Folder restored. Bookplate of British Astronomical Association on each leaf. \$ 4500.-

Very rare. Wilhelm Prinz (1857-1910) was a German-Belgian astronomer and noted for his selenography. Three plates of Enlargements of Lunar Photographs (Agrandissements de Photographies lunaires) published by Prinz, of the Belgian Royal Observatory at Uccle, are phototypie reductions, without retouching, of some of the enlargements which were presented by the author to the Belgian Academy of Sciences in April, 1892. They represent photographs taken with the great refractor of Lick Observatory, enlarged from ten to a hundred times, and among other things they illustrate the richness in details of the views taken with that instrument. They are of special value as permitting a closer study of the details of lunar relief. A question of priority is connected with this publication, which was made partly to enforce Prinz's claims and partly as a specimen of a proposed atlas. The photographs represent the circle Copernicus, the crater Bullialdus, Mare Humorum, and Mare Imbrium.-KVK: Jena, Hamburg; Univ. Chicago Library; Univ. of California, Santa Cruz; not in COPAC.

[Ptolemaeus] *Almagestum seu magnae constructionis mathematicae opus plane divinum. Latina donatum lingua ab Georgius Trapezuntio. Per Luca Gauricum recognitum.- Venedig: Luc' Antonio Giunta, 1528. Folio [324 x 222 mm]. [6], 143 num. Bll., [2, blank].* Title printed in red and black, woodcut diagrams throughout. Title mounted on blank verso, marginal spotting, dampstain in the bottom margin of the last leaves. Later vellum, sprinkled edges, spine titled in manuscript, lacking the rear free endpaper, some soiling. *Provenance:* Poly-carpus de Burgos (Carmelite Friar at Santa Maria in Traspontina, Rome, inscription on title verso dated 1754; further title inscription & drawing in another hand, and marginalia. Alfredo Moretti (bookplate)
\$ 9000.-

The edition princes of the first latin version of Ptolemy's *Almagest* to be taken directly from the original greek text ... remained the dominant influence in theoretical astronomy until the close of the 16th century. The first latin translation made from the original Greek text of Ptolemy's most important astronomical and mathematical work. 'Until the innovative work of Tycho Brahe and Kepler in the late sixteenth and early seventeenth centuries, that is, for nearly fifteen hundred, years, the *Almagest* was the basis of all sophisti-cated astronomy, a longevity exceeded only by Euclid's *Elements*' (Swerdlow). Instruments mentioned or described include the equatorial armillary, the plinth, the meridional armillary, the triquestrum and the armillary astrolabon. The *Almagest* had been translated into Arabic and was known to the later Middle Ages in a Latin translation from the Arabic by Gerard of Cremona; that version was first published in Venice in 1515.- Adams P 2214; Sander 5972; Renouard 92; Houzeau-L. 865; Sparrow 167; Norman 1760; Honeyman 2251; Stillwell 97n; PMM 40; DSB XI, 187 ff.; Thorndike IV, 395 f.

Tirpitz handwritten commentary on prussian military uniforms

[Ramm, August Leopold] Abbildungen von allen Uniformen der Königl. Preuß. Armee unter der Regierung Sr. Majestaet Friedrich Wilhelm III. Erschienen ohne Verlagsangabe in Berlin um 1800. Kolorierter Kupfertitel und 148 handkolorierte, teils gold- und silbergehöhte Uniform-Kupfertafeln in Oktav. Die Tafeln wurden um 1800 einzeln auf Folioseiten montiert, jeweils mit einem roten Rand versehen und von Hand in brauner Tinte numeriert, bezeichnet und größtenteils in sehr gleichmäßiger, feiner Schrift mit ausführlichen Erläuterungen versehen, die vielfach auch die Rückseiten der Blätter bedecken. Neuerer gesprenkelter Pappband mit goldgeprägtem Rückenschild (Kanten stellenweise etwas berieben, wenige Seiten mit hinterlegten Randeinrissen) \$ 19000.-

Zum gedruckten Werk und seinem Autor : Die besondere Qualität des prachtvoll kolorierten, seltenen Uniformwerks von August Leopold Ramm wird auch in der Forschungsliteratur hervorgehoben : "Alle Details und Accessoires wurden mit Akribie und profunder Kenntnis der Vorschriften in die Figuren eingesetzt. Besonders augenfällig wird das in den Ausschmückungselementen; den Borten und Schleifen, Tressen und Stickereien. Das hatte ein erstaunliches Einfühlungsvermögen des Koloristen zur Voraussetzung. Grund- und Mischfarben wurden variabel eingesetzt, was sich insbesondere bei der Vielfalt der Abzeichenfarben positiv bemerkbar macht. In ihrer Gesamtheit wirken diese farbigen Blätter ungemein reizvoll, und das Sujet besitzt neben der heeres- und uniformkundlichen Bedeutung auch einen kulturgeschichtlichen Wert. Nach damaligem Verständnis entsprach das Werk gediegenen Luxusvorstellungen." (Merta, 1993, S. 25). Um die einzelnen Teile der Uniformen prägnant hervortreten zu lassen, verzichtete der ausführende Künstler auf eine Gestaltung des Hintergrunds und lies die dargestellten Figuren auf einem variierenden Rasenstück posieren. Die hier vorliegende Ausgabe enthält 148 Tafeln und damit 6 Tafeln mehr als das gedruckte Inhaltsverzeichnis aufführt; auch Colas, 2482 verzeichnet nur 142 Tafeln. Ein Vergleich der hier vorliegenden Ausgabe mit dem Exemplar im Bestand der Kunstbibliothek zu Berlin (Signatur: Lipperheidesche Kostümbibliothek, Lip Qdb 17) ergab, daß die Reihenfolge der Abbildungen abweicht. Das im Anhang beigegebundene Gutachten von 1900 verglich die vorliegende Ausgabe mit dem Exemplar aus der Zeughausbibliothek und stellt fest, "daß das Werk des Herrn Staatssekretärs 15 Tafeln zeigt, welche hier fehlen" und "daß das im Zeughaus befindliche Buch andererseits 7 Tafeln mehr enthält". Die Unterschiede werden anschließend im Detail aufgelistet. Über die Biographie August Leopold Ramms ist nur wenig bekannt. Er wurde am 26. März 1765 in Wriezen geboren und bekam 1790 das Patent eines Secondeleutnants der preußischen Artillerie. In dieser Funktion war er Teilnehmer des Rheinlandfeldzugs von 1793 gegen die Mainzer Republik. Nachdem Friedrich Wilhelm III. am 16. November 1797 zum preußischen König gekrönt worden war, wurden schon im März 1798 gemäß einer Kabinettsorder viele Veränderungen der Uniformierung und Ausrüstung der preußischen Armee vorgenommen. Diese erweisen einmal mehr das überlieferte lebenslange Interesse des Königs an Uniformen und deren Ausgestaltung sowie deren Präsentation im Rahmen von Schauparaden. Am 6. August 1798 erhielt August Leopold Ramm vom König persönlich die Lizenz zur Zusammenstellung des Uniformwerks. Zum Zeitpunkt der Publikation war August Leopold Ramm Adjutant des 1. Artillerie-Regiments in Berlin. Über seinen weiteren Lebenslauf ist nur noch bekannt, dass er bis 1808 Secondeleutnant blieb und dann zum Kapitän (Hauptmann) ernannt wurde. Zu den umfangreichen handschriftlichen Ergänzungen : Das oben genannte Gutachten stellt fest, daß "die handschriftlichen Aufzeichnungen sämtlich enthalten (sind) - zum Theil auszugsweise, zum Theil wörtlich wiedergegeben - in der 'Stammliste aller Regimenter und Korps der Königl. Preußischen Armee" . Für uns ist diese Stammliste nur im Nachdruck von 1975 nachweisbar. Diese handschriftlichen Ausführungen umfassen die Entstehung, die Geschichte, die Feldzüge, die seinerzeitigen Kommandeure, Garnisonen, Bataillone, Kantone etc. bis zum Jahre 1806. Den Inhalt der Handschrift erschließen mehrere Register: 1. Ein Verzeichnis der Regimentsinhaber und Bataillone mit Verweis auf die dazugehörigen Abbildungen; 2. Ein Verzeichnis der Orte, an denen Schlachten und Gefechte stattgefunden hatten und wo sich die Garnisonen befanden (fol. 141-167); 3. ein unpaginiertes Register mit Seitenangaben. Durch diese peniblen und umfassenden Ergänzungen wird aus dem Rammschen Tafelwerk ein einzigartiges militärhistorisches Kompendium für die Zeit um 1800. Zum historischen Hintergrund : Am Ende des 18. Jahrhunderts bestanden die nah am Körper getragenen Uniformen aus dem Rock, der in Preußen traditionell in blauer Farbe gehalten war, einer Weste, Hose und Kopfbedeckung. Darunter trugen die Soldaten und Offiziere ein Unter- und ein Vorhemd, eine Halsbinde und an den Füßen Stiefeletten. Die einzelnen Regimenter ließen sich nach den am Kragen, den Rabatten (Brustklappen) sowie den Ärmelaufschlägen befestigten Abzeichenfarben unterscheiden. Vorschriften regelten zudem den Besatz der Oberbekleidung mit verschiedenen Kennzeichen und Ausschmückungen. Jedes Mitglied des preußischen Militärs ließ sich nach der Form der in vielen Varianten vorkommenden Ärmelaufschläge, Knöpfe, Borten, Tressen oder Stickereien einem bestimmten Regiment zuordnen. In der Handschrift wird dies anhand der Bildtafeln verdeutlicht, die jeweils einen Soldaten und einen Offizier als Vertreter der einzelnen Regimenter in

ihren jeweiligen farbenfrohen und nach heutigen Maßstäben auffällig gestalteten Uniformen abbilden. Nach Klaus-Peter Merta entstanden die Uniformwerke, weil man das Erscheinungsbild der Armee in Wort und Bild festhalten wollte. "Dabei dachten die Auftraggeber und Herausgeber bzw. Künstler weniger an eine Überlieferung für die Nachwelt, als vielmehr an ein Arbeits- und Dokumentationsmittel für die Zeitgenossen. Dass solche Darstellungen repräsentativ waren und künstlerischen Ansprüchen genügten, macht die wenigen heute noch vorhandenen Exemplare besonders wertvoll, interessant und ansehenswert." Uniformwerke waren sehr beliebt und wirkten auch propagandistisch. Nach Merta resultierte daraus "die Anfertigung einer ganzen Reihe von Armeewerken, denen heute Seltenheitswert beigemessen wird. Überdies zählen sie zu den heeres- und uniformkundlichen Primärquellen." In Preußen übernahm man die Anregung durch ältere französische Uniformwerke und veröffentlichte 1729 und 1737 die beiden sogenannten "Dessauer Spezifikationen". Weitere Darstellungen zeitgenössischer Uniformen enthielten die als General-Listen oder Stamm-Listen bezeichneten Werke. Zur Provenienz : Auf dem Vorsatzblatt der Handschrift findet sich folgender Vorbesitzereintrag: "Obrist Lieutenant Tirpitz. Ordonnanzoffizier General von York 1813/14". Der handschriftliche Vorbesitzereintrag datiert aus der Zeit der Befreiungskriege gegen Frankreich (1813-1815). Im März 1813 erklärte Friedrich Wilhelm III. Frankreich den Krieg. Nach dem Sieg der Koalitionsarmeen Preußen, Rußland und Österreich gegen die napoleonischen Truppen in der Völkerschlacht bei Leipzig (16. bis 19. Oktober 1813) wurde Yorck Oberbefehlshaber in Schlesien. Am 1. Januar 1814 überquerte er als General der Infanterie mit seinen Truppen bei Kaub den Rhein. In Frankreich wurden mehrere Schlachten geschlagen. Am 30. März 1814 siegte die Infanterie unter Führung Yorcks schließlich vor Paris gegen Napoleons Armee. Schon am folgenden Tag setzte eine provisorische Regierung unter Leitung Talleyrands Napoleon ab - die Zeit seines Exils begann. Der möglicherweise an diesen Kämpfen beteiligte und vielleicht dabei umgekommene Ordonnanzoffizier Tirpitz war ein Vorfahre des bekannten Admirals. In den Miscellen zum preußischen Offizierskorps für die Jahre 1813/14 findet sich in dem Eintrag "v. Tirpitz, Secondeleutnant" möglicherweise ein Hinweis auf ihn. Er könnte ein Sohn des Jacob Friedrich Tirpitz (1750-1830) gewesen sein. Dieser war der Urgroßvater des bekannten Admirals und angesehenen Stabstrompeter im neumärkischen Dragonerregiment 3. Informationen lassen sich indes nur über seinen Sohn Friedrich Wilhelm Tirpitz (1782-1862) finden. Dieser studierte Jura und war Rechtsanwalt und Notar in Sonnenburg. Vielleicht hatte er einen Bruder, der Ordonnanzoffizier war. Zweifellos befand sich die Handschrift jahrzehntelang im Besitz der Familie Tirpitz - Alfred von Tirpitz wird sie von seinen Vorfahren geerbt haben. Eingebunden ist das handschriftliche Gutachten eines Generalleutnants.

Alchemy

Richard Anglicus. *Correctorium alchymiae ...* Das ist reformierte Alchimy, oder Alchimeibesserung, und Straffung der Alchimistischen Missprüach ... II. Rainmundi Lulli apertorium & accuratio vegetabilium. Von eröffnung und entdeckung wachsender Sachen, und des Philosophischen steyns ... III. Des Königs Gebers auss Hispanien Secretum, dessen sich die Vene-tianer hoch austhun ... Strasbourg: Bernard Jobin, 1581. 8° [8], 151 leaves. Good copy in contemporary vellum, using a manuscript leaf. [bound with:]

[Witestein, Karl]. *Caroli VVitestein seu a Petra Alba ... disceptatio philosophica de quinta chymicorum essentia : accessit Alexandri Carerij Patauini quaestio an metalla artis beneficio permutari possint.*- Basileae: Per Sebastianum Henricpetri, [1583] [16], 223 pp., [1] \$ 5000.-

First edition of a very rare collection [Duveen]. There are five treatises: Richardus Anglicus *Correctorium* and *Reformierte Alchimeï*, Lull's *Apertorium et accuratio vegetabilium*, and *Vom philosophischen Stein* and Geber's *Secretum*. The thirteenth-century Richardus Anglicus, to whom the first treatises are attributed, was canon of St. Paul's and a famous physician. He had studied medicine at Paris, and wrote several medical treatises, notably the *Micrologus*, a medical encyclopaedia based on greek and Arabic sources. The first of the two alchemical treatises contained here was first printed as *Correctio fatuorum* in the latin collection *De alchimia opuscula* (Frankfurt 1550). The other is first printed here. Although spurious, the Lullian texts exerted great influence on later alchemical literature. According to the preface of the last treatise, the *Secretum*, is an extract from a larger work, written by Geber for his son. Geber's works had enormous influence on the development of western chemistry, and "whether they be translations or elaborations, they represent the amount of Arabic chemical knowledge made available to latin reading people toward the end of the 13th century." [Sarton II,1044].- Duveen 508; Ferguson II, 270; Ritter 2014; VD16 R2158; Wellcome 5473; not in Adams, Durling or Neville; OCLC: Huntington.

First edition. A rare alchemical treatise by a somewhat obscure physician from Piacenza who became physician to Margareta of Austria. He is known for the present book, printed in Basle, and his *Vera totius medicinae forma* printed by Plantin at Antwerp in 1588. The appended dissertation by Alexander Carerius was first published at Padua in 1574, and again at Basle in 1582 (see Ferguson). The present work is undated but ascribed to 1583 by

most authorities.- OCLC locates 8 copies in the UK & continental Europe, but only Wisconsin and Yale in North America- Ferguson II, 554; VD16 P2743 Adams W223; Ferguson II, p. 554; Duveeen p. 623; Neu 4395; not in Neville.

Handwritten lecture notes

[Rose, Gustav] Mineralogie publice vorgetragen von Professor Gustav Rose. Winter-Semester 1828 / 29. [Universität ?] Berlin. [Mitgeschrieben von] G. Tidden. [Handwritten Manuscript in ink by a contemporary hand on paper.] [Berlin, 1828/29]. 4° [250 x 195 mm] [2], 72 pp., [30, blank] Contemporary boards, red edges, red printed label. \$ 3600.-

Rare handwritten lecture notes on mineralogical lectures held in Berlin in 1828/29 by the German mineralogist Gustav Rose. In 1829 Rose with Ehrenberg was chosen to accompany Humboldt on a scientific journey commissioned by the czar to the Urals, the Altai, and the Caspian Sea. Gustav Rose made important contributions in the fields of petrography and crystallography, and is credited for pioneering usage of the reflective goniometer in Germany. He had a particular interest in the relationship between the crystalline form and the physical properties of minerals, and is credited for developing a mineral system that was a combination of chemistry, isomorphy and morphology. He conducted studies of quartz, feldspar, granite, the mineralogical components of trap rocks, et al. He is remembered for research of meteorites and his investigations of chondrules. Gustav Rose (1798-1873), German crystallographer & mineralogist, was born into a family with a strong tradition in science. His grandfather, Valentin Rose the elder, invented the low-melting alloy still called Rose's metal. His father, Valentine the younger made original contributions to procedures in inorganic chemical analysis, and his brother Heinrich was a famous chemist in his own right. In 1815, at the age of only seventeen, Gustav with his brothers fought in the campaign against Napoleon. The following year, he became an apprentice at a mine in Silesia, but left due to illness. Returning to Berlin, he began studying mineralogy under C. S. Weiss. He graduated from the University of Berlin in 1820, and traveled to Stockholm to work in the laboratory of J. J. Berzelius. Returning to Germany in 1823, he began his lifetime career at the University of Berlin becoming professor extraordinary in 1826 and professor ordinary in 1839. In 1856, Rose succeeded Weiss as director of the Royal Mineralogical Museum. Together with Alexander von Humboldt, E. Mitscherlich and others, he founded in 1848 the Deutsche Geologische Gesellschaft. The mineral "Roselite" was named in his honor by A. Lévy in 1824. Rose's dissertation of 1820 is the first work on crystal morphology of a mineral species based on accurate measurements with a reflecting goniometer. In it Rose established the identity of sphene and titanite.- DSB XI, 539/40.

French architectural education around 1800

[Rolland, Camille; Ecole Polytechnique] Ecole Imp(eri)ale Polytechn(i)que. Ire Division. Epures 1810'. Folio [505 x 350 mm] Manuscript with hand-drawings, washed, coloured. Signed by student and professor. Die Semesterarbeit des Studenten Rolland enthält 29, teils doppelblattgroße, teils farbige u. größtenteils lavierte Zeichnungen in Tusche auf festem Papier. Halbleder-Band der Zeit mit goldgeprägtem Rücken- und Titelschild (Einband berieben und fleckig, Rücken beschädigt, innen sehr wohl erhalten und farbfrisch. \$ 5000

Fine preservation of architectural studies at the Ecole polytechnique, some drawings signed by Jean-Nicolas-Louis Durand. This was the work of the student Camille Rolland with the help of the professor as student's semester work. Jean-Nicolas-Louis Durand (1760 – 1834) was a French architect. He was an important figure in Neoclassicism, and his system of design using simple modular elements anticipated modern industrialized building components. Having spent periods working for the architect Étienne-Louis Boullée and the civil engineer Jean-Rodolphe Perronet, in 1795 he became a Professor of Architecture at the École Polytechnique. Interessantes Dokument zur Geschichte des Architekturunterrichts im nachrevolutionären Frankreich, da zu den Lehrern Rollands der einflussreiche Jean-Nicolas-Louis Durand (1760 - 1834) gehörte. Der vorliegende Band enthält 11 technische und perspektivische Zeichnungen (mit Unterschriften von Frimot und Fourrier), 10 Zeichnungen zur Fortifikation und Kartographie, sowie 8 Architekturzeichnungen, davon 7 mit der Unterschrift von Durand. "Durand was the first professor of architecture appointed at the revolutionary Ecole Polytechnique. (His) concern for economic, structural and functional requirements contrast sharply with the approach which had prevailed at its predecessor institution, the Academie Royale d'Architecture, just before the revolution. The rationalisation of the design process which Durand advocates is also novel, (...). (His) lectures influenced the development of the

industrial town more than any other work at that time and contained many of the notions that became widely accepted with the aesthetic functionalism of the early twentieth century." (Liane Lefaivre, Alexander Tzonis, *The emergence of modern architecture*, S. 479). "Seine Vorlesungen erschienen ab 1802 unter dem Titel 'Precis des lecons d'architecture', die in ihren Nachdrucken und Übersetzungen zum folgen-reichsten Architekturtraktat der ersten Hälfte des 19. Jahrhunderts wurden." (Kruft, *Geschichte der Architek-turtheorie*, S. 311). "Durand nimmt mit seiner Architekturtheorie in vielen Punkten den Funktionalismus der 1920er Jahre vorweg." (a.a.O., S. 312).

Russell, Henry Chamberlaine [ed.] Photographs of the Milky-Way & Nebulae taken at Sydney Observatory, 1890. [Sydney], [1891], gr.8°. [6], 16 Original- Photogr. auf Karton montiert mit begleitendem Text. Original-Umschlag d. Verlags.
\$ 9500.-

During his term as Government Astronomer H.C. Russell worked on two internationally significant photographic projects. The first was the organisation of photography for the New South Wales section of the 1874 Transit of Venus. The second was the mapping of the stars in the southern section of the heavens using photography. Planning for this began in 1887 and started in 1890 after which it continued to play a major role in the activities at Sydney Observatory up until the 1960s. The success of this project depended upon a special kind of photographic telescope which was officially known as an 'astrograph' but which Russell often referred to as the 'Star Camera'. The casing and mounts for the 'Star Camera' were made in New South Wales and all the smaller parts and the putting together of the instrument were done by Mr. W. I. Masters, the instrument maker at The Sydney Observatory. However there were still some aspects of instrument making which were beyond the skills of Australian manufacturers. One of these was the making of high quality lenses and in 1887 Russell recommended the purchase of a photographic objective from the workshops of Sir Howard Grubb in Ireland. The making of a lens was no simple matter and with other observatory's also requesting lenses Sydney Observatory did not receive theirs until 1890, some time after the casing and fittings for the 'Star Camera' had been completed. While Russell was waiting on the arrival of the Grubb lens he placed a six inch portrait lens made by J.H. Dallmeyer on the mounting for the 'Star Camera'. Using Ilford photographic plates he took what were probably the first photographs of the stars in Australia. Once photographed Russell made copies from the negatives and had them bound into this book. There is no indication of a printer or publisher inside the book and this suggests it was probably made in a very limited run by Russell to promote these photographs which Russell, "believed to be the first of their kind of the Southern Skies." This particular copy of the book was presented to the New South Wales Branch of the British Astronomical Association by H. Wright on 25 September 1923. These photographic plates are of scientific significance both for their international role in the 'Mapping the Stars' project and their being one of the earliest scientific photographs of the southern stars. They are also of immense significance due to their relationship to Australia's early scientific history, its scientists and the instruments used to create the photographs D.S.B. Supplement pp. 493. nicht Ferguson.

Rydberg Constant

Rydberg, Johannes Robert. Recherches sur la constitution des spectres d'emission des éléments chimiques par J. R. Rydberg.- Stockholm: Norstedt, 1890 (= Kongl. Svenska Vetenskaps- Akademiens hand-lingar; N.F., 23, 11) 4°. 155 pp., IV plates. Modern halfleather, fine condition, but wrappers not bound in. Book-Plate: **Svante Arrhenius.** \$ 1800.-

First edition of his famous paper to include the Rydberg formula & constant: a general formula giving the frequency of the lines in the spectral series as a simple difference between two terms. Spectroscopy had been a major developed field of physical study for several decades, but its most pressing need near the end of the nineteenth century was for the organization of its vast amount of data into some mathematically ordered form that theoreticians might find useful in their attempts to understand the underlying significance of spectra. Rydberg's general formula was the most important presentation of this type. Many others groped in the same general direction, mostly with ephemeral results.

Scarce. First edition, Off-Print issue. Rydberg developed a general mathematical formula for expressing all series in all elementary line spectra, which allowed him to discover some important relationships between types of series. Rydberg formula was of fundamental importance to Niels Bohr's quantum theory of the atom (1913), providing Bohr the means of incorporating the quantum of action into the theory of atomic construction. [Norman] "His major spectral work, 'Recherches sur la constitution des spectres d'émission des éléments chimiques', published in 1890, mapped out Rydberg's total approach with remarkable clarity. He conceived of the spectrum of an element as composed of the superposition of three different types of series—one in which the

lines were comparatively sharp, one in which the lines were more diffuse, and a third that he called principal series even though they consisted mostly of lines in the ultraviolet. The first lines were located in the visible spectrum and were usually the most intense. The members of each series might be single, double, triple, or of higher multiplicity. Any particular elementary spectrum might contain any number (even zero) of series of each of the basic types. While Rydberg observed and measured some spectral lines on his own, he was not particularly noted as an experimental physicist and did not publish any of his experimental investigations or spectroscopic measurements. Most of the data he needed were already available in the voluminous literature. While T. R. Thalén and Bernhard Hasselberg, Rydberg's major Swedish contemporaries in spectral studies, concentrated upon accurate measurements of the spectra of the elements, Rydberg's major spectral contributions were to theory and mathematical form, and those to form were the ones of enduring value. Unlike most others, Rydberg used wave numbers (the number of waves per unit length) instead of a correlated reciprocal, the directly measured wavelengths. This enabled him to manipulate his final formula into a particularly useful form. Rydberg concluded that each series could be expressed approximately by an equation of the form where n was the wave number of a line; $N_0 = 109.721.6$, a constant common to all series and to all elements; n_0 and μ constants peculiar to the series; and m any positive integer (the number of the term). The lines of a series were generated by allowing m to take on integer values sequentially; n_0 defined the limit of the series that the wave number n approached when m became very large. Just when he became occupied with confirming this relationship, Rydberg learned about Balmer's formula, which represented the observed lines of the hydrogen spectrum with extraordinary accuracy. He arranged Balmer's formula into its wave number form and noted that, with appropriately selected constants, it was then a special form of his own more general formula. He felt that the success of Balmer's formula strength-ened the justification of his own form. Thus encouraged, Rydberg proceeded to use the latter with sufficient suc-cess to propose it as the general formula for all series in all elementary line spectra, and to conclude that N_0 was indeed a universal constant, which has since become known as Rydberg's constant."- Partington IV, 527; Jamies. Quantum Mechanics, 66-68; DSB XII, 42-45; Plotnick sale 231.

Scheffelt, Michael; Johann Ephraim Scheibel [ed.] Michael Scheffelts Unterricht vom Proportionalzirkel. Neue, durchgehends umgearbeitete und mit einer historischen Einleitung vermehrte Auflage. Breslau: Johann Friedrich Korn, 1781. 4° [265 x 215 mm] [12], 168 pp., [2] mit 8 fold. plates. Halblederbd. d. Zt., obere u. untere R.kante stark berieben, etwas braunfl., ansonsten solides u. gutes Exemplar. \$ 1400.-

Last edition, considerably annotated by the editor who has given a historical introduction. Michael Scheffelt was a mathematics teacher in Ulm who eventually became a professor at the university there. He published several books on mathematical instruments during his life. The text was first published in 1697: it is a treatment of the sector [invented by him ?]. It was published at a time when knowledge of the device had spread throughout Europe and when most countries already had books on the instrument in their own language. There seems to be nothing new about Scheffelt's sector. It had the usual scales for arithmetic, trigonometry, geometrical drawing and the military scales for fortification and solving caliber problem. The work, however, proved very popular, going through several editions until at least 1755. In 1781 the mathematician & astronomer Johann Ephraim Scheibel (1736-1809) made a "modern version" of the book with historical and didactical notes [ADB XXX, 693].- Tomash S30; Scheibel: Wolf, 785; Pogg. II, 782, not Jordan.

Reactions to the new chemistry

Scherer, Alexander Nicolaus. Archiv für die theoretische Chemie. Herausgegeben von D. Alexander Nicolaus Scherer. Erster Band [Erstes bis drittes Heft]. 3 parts.- Jena: bey I. G. Voigt, 1800. 8° [194 x 113 mm] X, [2], 188 pp., [4], 189-312 pp., [4], [4], 313-446 pp. Cont. half calf, gilt spine in compartments, two labels, red edges, little rubbed & soiled. Old stamp to title, else good copy. \$ 1000.-

Very rare periodical, published to support Lavoisier's new chemistry. It includes a review of the French works and the reactions in Germany & England. The second part is devoted to Priestley's reactions and polemic with Adet. The third part, written by Jakob Friedrich Fries (1773-1843), is devoted to Jeremias Benjamin Richter's Stöchiometrie and includes his critic. There was a fourth part published in 1802 [129 pp.], after this the periodical declined. Scherer (1771-1824) was educated in Jena and Weimar, visited England and became professor of physics in Halle (1800), Dorpat (1803) and at St. Petersburg (1804). He was counsellor of mines of the Duke of Saxe- Weimar and an early supporter of the antiphlogistic doctrine of Lavoisier.- not in Neville & Cole, etc.;

Partington III, 598; KVK: Berlin, Dresden, Leipzig, Weimar [only 1], Erlangen, München [only like here], no copy in OCLC, COPAC.

Map projection

Scherffer, Carl. Abhandlung über die geographische und orthographische Projektion einer bey dem Pole zusammen gedrückten Elliptoide, wie auch über die Figur des Erdschattens bey Mondfinster-nissen. Wien: gedruckt bey Johann Thomas Trattnern, 1778. 8°. 93 pp., [3] with six fold. plates Halb-leder im Stil d. Zt., frisch.. \$ 1400.-

Early work on map projection by the learned Jesuit Karl Scherffer. Der Jesuit Karl Scherffer (1716-1783) war von 1748-1750 Lehrer der Mathematik in Graz und zuletzt auch Aufseher der Sternwarte daselbst, dann Mitglied der philosophischen Fakultät der Universität zu Wien und 1751 öffentlicher Lehrer der Anfangsgründe der Mathematik und Physik an derselben, später, nach Aufhebung des Ordens ordentlicher Professor der höhe-ren Mathematik an dieser Universität.- De Backer/S. VII, 771,27; Pogg. II, 791; Wurzbach XXIX,216; Giese 1608. KVK: Stabi Berlin, Halle, Göttingen, Munich; COPAC: UCL [Graves copy], BL London; OCLC: only New York Public.

Borelli in the german university

59 Schmidt, Silvester Heinrich. Potentia Vectis luminosi radii viam temperans, in illustri ad salutis fontis Athenaeo, examini publico exponitur, d[ie] 9 Martii, 1707, a M. Silvestro Henrico Schmidio, rectore; respondente, Jo. Christophoro Steeb, Wonsideliano. [o.O.; 1707] 4 Bll., 1 plate ; [with :] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo ... die VI. Febr. 1704 praeside M. Silvestro Henrico Schmidio, Rectore a Wilhelmo Henrico Schwalbe, Culmba-censi. [o.O., 1704] [3] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo ... praeside M. Silvestro Henrico Schmidio, Rectore a Nicolao Christophoro Zinn, Cadolsburgensi, D[ie] 13. Februarii, anno 1704. [o.O., 1704] [4] pp., 1 plate [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo ... praeside M. Silvestro Henrico Schmidio, Rectore a Joh. Laurentio Esenbeck, Kreglingensi, D[ie] 20. Februarii, anno 1704. [o.O., 1704] [3] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] 27. Februarii, anno 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Jo. Casparo Vogther,... [o.O., 1704] [3] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] V. Martii 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Elia Leonhardo Loder. [o.O., 1704] [3] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] XIII. Martii 1704 ... praeside M. Silvestro Henrico Schmidio a Joh. Maximiliano Hectore [o.O., 1704] [5] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] XXX. Aprilis 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Joh. Daniele Gruber [o.O., 1704] [3] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] VII. Maji 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Joh. Martino Kolb [o.O., 1704] [3] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] XXI. Maji 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Joh. Balthasar Bernhold [o.O., 1704] [5] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] II. Junii 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Jo. Laurentio Mayer [o.O., 1704] [5] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] XXV. Junii 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Jo. Hartmann Henrici [o.O., 1704] [5] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] XVI. Julii 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Wilhelmo Henrico Mayer [o.O., 1704] [5] pp., 1 plate recto [with] **Schmidt, Silvester Heinrich.** Potentia Vectis in illust. Ill ad fontes salutare Athenaeo D[ie] XXII. Julii 1704 ... praeside M. Silvestro Henrico Schmidio, Rectore a Henrico Carolo Tungreau. [o.O., 1704] [5] pp., 1 plate recto. \$ 2200.-

Very rare collection of dissertations under the supervision of Heinrich Silvester Schmidt (1660-1738) at Heilbronn Athenaeum, mainly dealing with Borelli's Motu animalium. Giovanni Alfonso Borelli (1608 - 1679)

was an Italian physiologist, physicist, and mathematician. He contributed to the modern principle of scientific investigation by continuing Galileo's custom of testing hypotheses against observation. Trained in mathematics, Borelli also made extensive studies of Jupiter's moons, the mechanics of animal locomotion and, in microscopy, of the constituents of blood. He also used microscopy to investigate the stomatal movement of plants, and undertook studies in medicine and geology. Borelli's major scientific achievements are focused around his investigation into biomechanics. This work originated with his studies of animals. His publications, *De Motu Animalium I* and *De Motu Animalium II*, borrowing their title from the Aristotelian treatise, relate animals to machines and utilize mathematics to prove his theories. The anatomists of the 17th century were the first to suggest the contractile movement of muscles. Borelli, however, first suggested that 'muscles do not exercise vital movement otherwise than by contracting.' He was also the first to deny corpuscular influence on the movements of muscles. This was proven through his scientific experiments demonstrating that living muscle did not release corpuscles into water when cut. Borelli also recognized that forward motion entailed movement of a body's center of gravity forward, which was then followed by the swinging of its limbs in order to maintain balance. His studies also extended beyond muscle and locomotion. In particular he likened the action of the heart to that of a piston. For this to work properly he derived the idea that the arteries have to be elastic. For these discoveries, Borelli is labeled as the father of modern bio-mechanics.- not in COPAC or OCLC; KVK: locates only one similar volume at Anna Amalia Bibliothek/ Weimar.

cobalt

Schwachheim, Franz Rudolph von [Lange, Johann Joachim]. Inaugurale specimen physico-chemicum, Cobalti Historiam producta et novas quasdam species exhibens. Quod auspiciante sanc-tissimo ... pro gradu doctoris ... ad XX. Augusti anno [1757] ... defendet auctor Franciscus Rudolphus Schwachheim.- Halae Magdeburgicae [Halle a. d. Saale]: typis Johann Christian Hilliger, [1757]. 4° [210 x 172 mm] 48 pp., [4] Geheftet. \$ 450.-

Dissertation written under the presidy of the mathematician and mineralogist Johann Joachim Lange (1699 – 1765), the medician Johann Juncker (1679-1759) and the physicist Johann Andreas Segner (1704-1777) at Halle University. It seems from the theme of the dissertation that Johann Joachim Lange, who was professor of philosophy & mathematics at the University of Halle from 1723 until his death and who was also a corresponding member of the Berlin Academy of Science, was responsible for the dissertation. Lange had prepared for printing the Collection catalog of August Heinrich Decker's mineral collection, consisting of over 6,000 specimens of metals, ores, druses, fossils, gems, dried herbs, and preserved fish. In 1756 there was a dissertation on the nature of stones [Genesis Lapidem] under his presidy written by Mallickrodt. [see Schuh]. Cobalt is a chemical element with symbol Co and atomic number 27. It is found naturally only in chemically combined form. The free element, produced by reductive smelting, is a hard, lustrous, silver-gray metal. Cobalt-based blue pigments have been used since ancient times for jewelry and paints, and to impart a distinctive blue tint to glass, but the color was later thought by alchemists to be due to the known metal bismuth. Miners had long used the name *kobold ore* (German for *goblin ore*) for some of the blue-pigment producing minerals; they were named because they were poor in known metals and gave poisonous arsenic-containing fumes upon smelting. In 1735, such ores were found to be reducible to a new metal (the first discovered since ancient times), and this was ultimately named for the *kobold*. The first attempts at smelting these ores to produce metals such as copper or nickel failed, yielding simply powder (cobalt(II) oxide) instead. Also, because the primary ores of cobalt always contain arsenic, smelting the ore oxidized the arsenic content into the highly toxic and volatile arsenic oxide, which also decreased the reputation of the ore for the miners. The Swedish chemist Georg Brandt (1694–1768) is credited with discovering cobalt circa 1735, showing it to be a new previously unknown element different from bismuth and other traditional metals, and calling it a new "semi-metal." He was able to show that compounds of cobalt metal were the source of the blue color in glass, which previously had been attributed to the bismuth found with cobalt. Cobalt became the first metal to be discovered since the pre-historical period, during which all the known metals (iron, copper, silver, gold, zinc, mercury, tin, lead and bismuth) had no recorded discoverers. The first mines for the production of smalt (cobalt glass powdered for use for pigment purposes in ceramics and painting) in the 16th to 18th century were located in Norway, Sweden, Saxony and Hungary. [wikipedia.com for cobalt] not in Schuh, not in Cole, not in Roy G. Neville Coll., not in Hirsch/H. KVK: Berlin, Göttingen, Jena, Halle; COPAC: BL London; OCLC: Phil./ College of Physicians, NLM Bethesda

Steinbuch, Johann Georg. Analecten neuer Beobachtungen und Untersuchungen für die Naturkunde. Mit zwei Kupfern.- Fürth: im Bureau für Litteratur, 1802. 8°. VII, 135 pp., [1] with two plates by J. F. Volkart after Steinbuch. Blue plain papercard boards, handwritten label, dedication on front-fly. Little waterstained in upper part. Uncut copy. \$ 600.-

Rare physiological work on fresh water fishes and smaller animals in a lake. In four papers Steinbuch discuss burbot, triturus, polyp (cnidaria), and a similar one. Johann Georg Steinbuch (1770-1818) was lecturer in Erlangen and physician in Heidenheim, Ulm and Herrenberg. As a young university teacher he was particularly interested in the brain mechanisms which enable the perception of space and objects. With Justus Kerner he gave a correct clinical description of botulism. Lit.: Otto Joachim Grüsser. On the history of ideas of efference; Essays in the history of the physiological sciences (1995), pp. 35 ff. - KVK: Stabi Berlin, München, Tübingen; COPAC: BL London, Royal Society; OCLC: no copy.

Steinbuch, Johann Georg. Beytrag zur Physiologie der Sinne.- Nürnberg: bey Johann Leonhard Schrag, 1811. 8° [200 x 120 mm] XVI, 312 pp. Contemporary papercard boards, green gilt printed label & edges, ownership stamp to title, fine copy. \$ 900.-

Important, but forgotten work, on efference copy, reafference and the importance of motor commands in perception. Association copy: Ex Bibl. Hermann Aubert & Th[eodor] Ziehen.

An empirical work which influenced Wundt, Tourtual, Purkyne & Helmholtz. "In his book Steinbuch presented a very careful analysis of tactile recognition of objects by the grasping hand. Hereby, he developed the hypothesis that the cerebral mechanisms controlling the movement of the hands interact with the brain with the afferent signal flow evoked in the mechanoreceptors while the grasping hand is moving across the surface of the object. The cerebral signals controlling the movement were called 'Bewegidee' [motion idea]. According to Steinbuch's model, only by the interaction of the 'Bewegidee' with the afferent signal flow did object recognition become possible. After reading Steinbuch's book Purkyne developed the idea that the 'Bewegidee' and the afferent visual signals interact quantitatively with each other to achieve adequate visual movement perception." J. E. Purkyně (1787-1869) was one of the leading physiologists in the first half of the 19th century, became the founder of the "exact subjectivism", and remained during his entire life a very careful observer in psychophysical experiments. He made moreover many important discoveries in anatomy, neuroanatomy, embryology and pharmacology.- Lit.. Gary Carl Hatfield. The natural and the normative: theories of spatial perception from Kant to ... [1990] 130 f.; OCLC: Harvard Countway; NLM Bethesda; NYAM; Univ. Chicago; COPAC: King's College; College Physicians; BL London.

Mitosis or Cell division discovered

Strasburger, Eduard. Zellbildung und Zelltheilung. Mit VII Tafeln.- Jena: Hermann Dabis (Otto Deistungs Buchhandlung), 1875. 8°. IX, [1, blank], [2, "Werthbestimmung"], [2], 256 pp., 7 fold. lith. plates. Contemporary privat cloth, fresh & clean. Leinwandbd. d. Zt., nur gering berieben, innen durchgängig sauber. Innendeckel mit Ex Libris: Rudolf Virchow (1821 - 1902). \$ 1000.-

Rare first edition, uncommon; a book in which he set forth the basic principles of mitosis. In each succeeding edition he clarified and modified the description of the process until in the third edition (1880) he enunciated one of the modern laws of plant cytology: that new nuclei can arise only from the division of other nuclei. This copy with an Ex Libris of Rudolf Virchow, put in after his death. Probably one of his copies or from his library. Eduard Adolf Strasburger (1844-1912) was one of the most famous botanists of the 19th century. Strasburger is known as the author of the famous Lehrbuch der Botanik für Hochschulen (Textbook of Botany), which first appeared in 1894. He was the first to provide an accurate description of the embryonic sac in gymnosperms (such as conifers) and angiosperms (flowering plants), along with demonstrating double-fertilization in angiosperms. He came up with one of the modern laws of plant cytology: "New cell nuclei can only arise from the division of other nuclei." and originated the terms cytoplasm and nucleoplasm. Together with Walther Flemming, and Edouard van Beneden he elucidated chromosome distribution during cell division. His work on the upward movement of tree sap proved that the process was physical and not physiological.

Bahnbrechendes Werk des Biologen Eduard Strasburger, in dem er bereits in der vorliegenden ersten Ausgabe seine These der Zellteilung nicht durch Neubildung neuer Kerne, sondern durch Teilung alter Zellkerne anbringt. In der dritten Ausgabe (1880) des Werks führt er die inzwischen als Grundlehre der modernen Zytologie anerkannte Theorie weiter aus. Eduard Strasburgers Forschungen beschäftigten sich mit den Befruchtungsvorgängen bei Moosen, Farnen und Nacktsamern. Sein besonderes Interesse galt der Zellteilung und in diesem Zusammenhang konnte er bestätigen, daß sich der Zellkern bei der Zellteilung nicht auflöst, sondern im Prozess der Mitose in zwei Tochterkerne teilt, die an die beiden Tochterzellen weitergegeben werden. Ferner konnte er, wie zuvor schon Flemming bei tierischen Zellen zeigen, daß sich im Verlaufe der Kernteilung die Chromosomen der Länge nach spalten. Zu seinen weiteren Entdeckungen gehört die spezie-spezifische Konstanz der Chromosomenzahl und die Reduktionsteilung (Meiose), die der Bildung von Geschlechtszellen vorangeht. Darüber

hinaus hat Strasburger über die Natur der pflanzlichen Zellwände, über den Bau der Leitungsbahnen in Pflanzen und an vielen anderen Problemen auf dem Gebiet der botanischen Zytologie gearbeitet.- Garrison-M. 123 Anm.: "A pioneer work on the formation and division of cells."

A book from which Louis Braille [PMM 292] learned reading

[Tactile Alphabet] CATECHISME, ou Abrege de la Foi, a l'usage des Jeunes Aveugles, et dispose pour eux; Avec des Instructions pour la Communion, la Confirmation, et les Actes et Instructions sur la Foi, l' Esperance et la Charite.- Paris, Imprime par les Jeunes Aveugles rue Saint-Victor No. 68, 1820. [Folio [415 x 275 mm] 124 pp. gedruckt in Reliefschrift, Heftung der Zeit auf drei offen liegenden Bündeln. \$ 30.000.-

An unrecorded copy of a book used at the school where Braille learned reading and later invented his system. Valentin Haüy (1745 - 1822) was the founder, in 1784, of the first school for the blind, the Royal Institution for the Young Blind in Paris (now the National Institute for the Young Blind, INJA). Its purpose was to educate students and teach them manual work: spinning, and letterpress. In 1819, Louis Braille entered this school. Louis Braille (1809 – 1852) was the inventor of braille, a system of reading and writing used by people who are blind or visually impaired. As a small child, Braille was blinded in an accident; as a boy he developed a mastery over that blindness; and as a young man – still a student at school – he created a revolutionary form of communication that transcended blind-ness and transformed the lives of millions. After two centuries, the braille system remains an invaluable tool of learning and communication for the blind, and it has been adapted for languages worldwide. Braille studied in Coupvray until the age of ten. Because of his combination of intelligence and diligence, Braille was permitted to attend one of the first schools for blind children in the world, the National Institute for Blind Youth in Paris. The school was an underfunded, ram-shackle affair, but it provided a stable environment for blind children to learn and associate together. The children were taught how to read by a system devised by the school's founder, Valentin Haüy. Not blind himself, Haüy was a committed philanthropist who devoted his life to helping the blind. He designed and manufactured a small library of books for the children using a technique of embossing heavy paper with the raised imprints of Latin letters. Readers would trace their fingers over the text, comprehending slowly but in a traditional fashion which Haüy could appreciate. Braille was helped by the Haüy books, but he also despaired over their lack of depth: the amount of information kept in such books was necessarily small. Because the raised letters were made in a complex artisanal process using wet paper pressed against copper wire, the children could not hope to "write" by themselves. So that the young Louis could send letters back home, Simon-René provided him with an alphabet fashioned from bits of thick leather. It was a slow and cumbersome process, but the boy could at least trace the letters' outlines and write his first sentences. The handcrafted Haüy books all came in uncomfortable sizes and weights. They were laboriously constructed, exquisitely delicate, and greatly expensive to obtain: when Haüy's school first opened, it had a total of three books. Our copy seems one of these books made for the children. Despite their drawbacks, Haüy promoted their use with zeal: the books presented a new and handsome system which could be readily comprehended by those with eyesight. Certainly no better method yet existed for the blind to read, and the books seemed – to the sighted – to offer the best achievable results. Braille and his schoolmates, however, could detect all too well the books' crushing limitations. Nonetheless, Haüy's well-intentioned efforts still provided a breakthrough achievement – the recognition of the sense of touch as a workable strategy for sightless reading. Haüy's only personal limitation was that he was "talking to the fingers [with] the language of the eye." Braille was determined to fashion a system of reading and writing that could bridge the critical gap in communication between the sighted and the blind. In his own words: "Access to communication in the widest sense is access to knowledge, and that is vitally important for us if we [the blind] are not to go on being despised or patronized by condescending sighted people. We do not need pity, nor do we need to be reminded we are vulnerable. We must be treated as equals – and communication is the way this can be brought about." In 1821, Braille learned of a communication system devised by Captain Charles Barbier of the French Army. Some sources depict Braille learning about it from a newspaper account read to him by a friend, while others say the officer, aware of its potential, made a special visit to the school. In either case, Barbier willingly shared his invention called "night writing" which was a code of dots and dashes impressed into thick paper. These impressions could be interpreted entirely by the fingers, letting soldiers share information on the battlefield without having light or needing to speak. The captain's code turned out to be too complex to use in its original military form, but it inspired Braille to develop a system of his own. Braille worked tirelessly on his ideas, and his system was largely completed by 1824, when he was just fifteen years of age. From Barbier's night writing, he innovated by simplifying its form and maximizing its efficiency. He made uniform columns for each letter, and he reduced the twelve raised dots to only six, the smallest perfect number offering the highest proportion of combinations. He discarded all the dashes because they took up too much space. Crucially, Braille's small clusters of six dots were capable of being instantly recognized as letters with a single touch of a finger, without any movement or repositioning. Braille

created his own raised-dot system by using an awl, the same kind of implement which had blinded him. In the process of designing his system, he also designed an ergonomic interface for using it, based on Barbier's own slate and stylus tools: by soldering two thin bars across the slate, he created a secure area for the stylus which would keep the lines straight and readable.

Valentine Haüy (1745 - 1822), ..., erfand als erster eine Schrift, die von Blinden gelesen werden konnte. Lettern, die sich in ihrer Form von der gewöhnlichen Kursivschrift leicht unterscheiden, wurden erhaben auf dickes Papier geprägt, damit sie mit den Fingern gelesen werden konnten. Er gründete 1785 die Institution Royale des Jeunes Aveugles, und tatsächlich scheint es ihm gelungen zu sein, einigen seiner Schüler nicht nur durch seine Methode das Lesen, sondern auch das Setzen und Drucken dieser erhabenen Buchstaben beizubringen." (Carter-Muir, Bücher, die die Welt verändern, 1976, S. 534). Der Grundirrtum, der Haüy und seinen Nachfolgern wie etwa James Gall in Schottland oder den Amerikanern Howe und Perkins unterlief war, "daß sie das Problem vom Standpunkt des Sehenden aus angingen, wodurch sie die Lösung in der Anpassung des überlieferten Alphabets für eine Blindenschrift suchten." (a.a.O.). Für früh Erblindete erwies sich aber das Erfassen der herkömmlichen Buchstaben - auch in vereinfachter Schreibweise - mit den Fingerspitzen als zu kompliziert. "1821 kommentierte der Pariser *Mercure Technologique* ein System der 'Nachtschrift', das von Charles Barbier, einem früheren Artillerieoffizier, für die Armee erfunden worden war. In dem Artikel hieß es, daß die Institution Royale mit diesem System experimentierte, um junge Blinde zu unterrichten. In Barbiers System erschienen Konsonanten und Vokale in erhabenen gedruckten Gruppen von jeweils zwei bis zwölf Punkten. Louis Braille, ..., besuchte ebenfalls diese Schule. ... Sicher war er auch einer von jenen, die sich bemühten, Barbiers System zu lernen; doch während es Barbier ein leichtes war, visuell eine Gruppe von zwölf Punkten zu erfassen, fiel es Braille mit seinen Fingerspitzen um einiges schwerer. Letzten Endes war (auch) diese Schrift als Methode ungeeignet." (a.a.O., S. 535). 1829 legte Braille schließlich in einer kleinen Schrift sein System vor, das mit sechs Punkten auskam. "Das Braille-System wurde nicht sofort anerkannt; erst 1854 wurde es vom Institut selbst offiziell übernommen. Auf einem internationalen Kongreß in Paris im Jahre 1878 wurde es von ganz Europa angenommen." (a.a.O., S. 536). Pamela Lorimers Doktorarbeit (*A Critical Evaluation of the Historical Development of the Tactile Modes of Reading ...*) verdanken wir einen Überblick über die vor Braille erschienenen Drucke für Blinde: 1786 erschien in Paris Valentine Haüys 'Essai sur l'education des Jeunes Aveugles', die Inkunabel dieser Methode mit erhabenen Buchstaben zu drucken und "the first book ever produced for the use of the blind" (Lorimer). 1787 folgte der 'Catechisme de Paris', "used by the pupils at l'Institution Nationale des Jeunes Aveugles. The book demonstrates Haüy's abortive effort to use contractions." (Lorimer). Dem folgten 1817 die 'Notice historique sur l'Institution Royale des Jeunes Aveugles' und 1820 'Element de lecture, ou exercices syllabiques a l'usage des jeunes aveugles et disposes pour eux', beide gedruckt mit der 'Guillie Type'. Der Druck von 1817 wurde von Lady Lowther nach England gebracht und kam nach Angaben von Lorimer erst 1985 zurück nach Frankreich. Die 'Element de lecture' kamen ebenfalls nach England und befinden sich heute in der National Library of Scotland. 1829 erschienen dann die 'Recueil d'anecdotes' in der Barbier Type und im gleichen Jahr erschien Brailles 'Procédé'. Der vorliegende Text wurde also wie die 'Element de lecture' 1820 im 'Institut des Jeunes Aveugles' in der rue Saint-Victor gedruckt. Da das Institut von 1814 bis zum Februar 1821 von Sebastien Guillie geleitet wurde, müßte die Ausgabe zu den Drucken mit der 'Guillie Type' gerechnet werden. Für uns ist jedoch dieser Titel als Reliefdruck in keiner Bibliothek nachweisbar. Die Tatsache, daß diese Reliefdrucke sehr aufwendig und teuer in der Herstellung waren und daß selbst im Institut nur wenige Schüler diese Schrift lesen konnten, legt die Vermutung nahe, daß der Druck auch nur in diesem einen Exemplar hergestellt worden war. - Titelblatt und letzte Seite mit (Ruß- ?) Spuren, Randläsuren und kleineren Fehlstellen, einige Bl. mit kl. Wasserrand, Seite 9 mit Fehlstellen im weißen Rand, S. 81, 83 und 91 mit kl. Rand-, bzw. Eckausriß, Seite 85 bis 88 mit Braunfleck, letzte Lage fast lose.

[Testa, Domenico] Il zodiaco di Dendera illustrato.- Genova: Dalla tipografia Ponthenier, 1822.8° [200 x 120 mm] [4], xviii, 62 pp., with 1 folded leaf of plates [showing the zodiac]. Plain blue wrap-pers, uncut, unopened, title stamped. \$ 900.-

First edition, rare, a defence of sacred chronology against 'modern' interpretations of the astronomical zodiac found in Egypt during Napoleon's expedition. "In the 1820s there was a dispute over the dating of the Dendera zodiac which was claimed to have been produced around 2000 BC by Burckhardt and Coraboeuf. This came close to the period assigned to Noah's flood, as established by the 17th-century Bishop Usher. It seems that following the concordat with Napoleon a catholic priest called Domenico Testa produced a long screed on Dendera that vigorously refuted the claims for its antiquity. This is probably because the dating of the Dendera zodiac was coupled with the antireligious writings of Dupuis which claimed that the zodiac, and astronomy itself, was born near the Nile over 14,000 years ago and that the Greeks were scientific children compared to the Egyptians, whose knowledge and wisdom underlay all of Western science and mathematics. Champollion's contribution was to reveal that the Dendera was actually created in the Roman period thus refuting the extreme age

claims. Apparently the pope offered the Champollion a cardinalship, even though he was married with three children." Domenico Testa, was secretary to the papal nuncio in Paris, Antonio Dugnani, and he was member of the Accademia di Religione Cattolica whose object was to combat arguments that undercut catholic dogma or that undermined divine action as revealed in scripture. In 1793 Testa also took up epistolary arms against Alberto Fortis, who had argued that the fossil fish found on Monte Balco (Verona) had been transported there in ancient times from warmer climes during a general cataclysm. Testa argued vehemently otherwise as he did here.

trendy Chauffeur: Working clothes for employees around 1900

[**Vetements de Travail/ Working clothes**] 19 Kartons (Bristol Board) mit schwarz-weißen Originalentwürfen für Arbeitsuniformen, davon 18 signiert 'Guido, undatiert (um 1910). Die Entwürfe stammen aus dem Hause A. Ruy-Blas und A. Meillon Fils, 6, Rue Hippolyte-Lebas, Paris: Maison Speciale d' Habillements Administratifs et Militaires. 'Aux Phares de la Bastille'. Kartongröße 22,5 x 14,2 cm. In einer aufwendigen, neueren Kassette mit Pergament-rücken und schwarzen Seidenbezügen. \$ 3000.-

Enthalten sind mehrere Entwürfe für Chauffeursuniformen (Übermäntel, Regenmäntel mit Sturmhaube, Leder-Kombinationen, etc.), für eine Piccolo-Uniform, für den Frack eines Oberkellners und eines Kellners im Felix Krull-Alter, für livrierte Dieneruniformen, teilweise mit Kniebundhosen und Gamaschen, für den Frack eines Butlers und den Anzug eines Hausdieners mit gestreifter Jacke, für einen Portier mit knöchellangem Mantel und für einen Boten. Nur eine Tafel zeigt keine ganze Uniform, sondern 6 verschiedene Gamaschenarten. Teilweise verso handschriftliche Zusätze wie "compl. toute bleue", "trop conforme", "la taille est trop long", "taille trop courte", "changer garniture" u.a.m. In der Ausführung sind die Zeichnungen sehr sauber, fein und detailreich, die Personen sind alle individuell gestaltet, vielfach mit berufsspezifischen Accessoires. Mehrere Tafeln am Rand mit dem Prägestempel 'Bristol Board' mit gekröntem R. - Die Kartons tragen teils alte Nummerierungen und sind stellenweise leicht fingerfleckig.

On meteors – everything under the sun

Vieri, Francesco de. I Tre Primi Libri Delle Metheore...da Lui riccorretti con l' aggiunta del quarto Libro ... - Florence:: Giorgio Marescotti,, 1582. 8°. [16], 424 pp., [16] Con-temporary vellum, handwritten label, else fine. \$ 2000.-

Second, expanded, edition. The first edition of Vieri's work consisted of only the first three books of Aristotle's Meteorologica. This second edition adds the commentary of the fourth book of Aristoteles. This work also treats of comets, rainbows, tides, the Milky Way, earthquakes, and metallurgy. Francesco de' Vieri (1524-1591), a humanist and early on a Platonist after the fashion of Marsilio Ficino, educated in the school of Jacopo da Diacceto, he followed in his ancestor's footsteps by taking up philosophical studies. He taught at the School of Pisa, at first holding a chair in Logic, and later, from 1559 to 1590, in Philosophy. Notwithstanding the current university statutes promoted by Cosimo I de' Medici (1519-1574), which forbade any deviation from Aristotelian teachings, the second Verino was granted permission by Grand Duke Francesco I (1541 - 1587) to give public lectures on Platonic philosophy, but was forced to interrupt them upon the protests of his colleagues. His desire to refound the Platonic Academy had however the conciliationist temper originated by Pico della Mirandola (1463-1494), who considered Aristotle a precursor of Plato, whose thought therefore could not but be in harmony with his master's. He chose as the target of his anti-peripatetic polemic in *Vere conclusioni di Platone conformi alla dottrina christiana et a quella d'Aristotile* ("True Conclusions of Plato in Agreement with Christian Doctrine and Aristotle's Teachings", Florence, 1589) his main enemy, the Aristotelian Girolamo Borri of Arezzo, also a professor at the School of Pisa. Verino published, among other things, a *Trattato delle metheore* ("Treatise on Meteors", Florence, 1572), a *Trattato della lode, dell'honore, della fama et della gloria* ("Treatise on Praise, Honor, Fame and Glory", Florence, 1577), the *Discorsi delle maravigliose opere di Pratolino et d'Amore* ("Discourses on the Marvelous Works of Pratolino and of Amore", Florence, 1587) and a *Discorso del soggetto, del numero, dell'uso et della dignità et ordine degl'habiti dell'animo* ("Discourse on the Subject, Num-ber, Use and Dignity and on the Kind of Vestments of the Spirit", Firenze, 1568), in which he championed the political and moral aspects of Plato's thought. He left in manuscript form his *Lezioni d'amore* ("Lessons on Love"), a commentary on Cavalcanti published in recent times. EDIT 16 CNCE 29017. Adams V715. Guarducci 170. Biblioteca Medico-Lorense 525. Graesse V,2,311. Riccardi I 600. Chiodi 396. Delfiol 191. Fontanini II,359.

Voit, Carl von. Beschreibung eines Apparates zur Untersuchung der gasförmigen Ausscheidungen des Thierkörpers; in: *Abhandlungen Akad. d. Wiss München* 1876. \$ 1200.-

First edition of his landmark paper. [Gedeon 53]. Voit gives a detailed description of his apparatus for the measurement of gas exchange in animals. The technique is based on an open-circuit approach, where air is allowed to flow through an enclosure where the experimental animal is confined. Accurate methods of gas analysis and ingenious absolute calibration techniques are combined to improve on the performance of a similar but much larger installation built by Pettenkofer in 1861. Carl von Voit (1831-1907) received training in analytical chemistry in Göttingen and also in Munich, where he attended the lectures of Liebig. In 1856 he became assistant to Bischoff at the Physiological Institute and four years later joined the laboratory of Max Pettenkofer, who became his life-long friend. In 1863 Voit was appointed professor of physiology and for the next three decades he carried out an ambitious programme of metabolic research.- Gedeon. Landmark Publications no. 53

Continental drift

Wegener, Alfred. Die Entstehung der Kontinente; in: Dr. A. Petermanns Mitteilungen aus Justus Perthes' Geographischer Anstalt 58 (1912).- Gotha: Justus Perthes, [1912]. pp. 185-195, 253-256, 305-309 Original brown printed wrappers. sold

First edition, Journal issue. Alfred Wegener was the originator and one of the chief defenders of the theory of continental drift. This, his first paper on the subject, attracted first little attention, and it was only with the publication of a second edition of his treatise [Entstehung der Kontinente und Ozeane] in 1919 [1920] that his theory became a subject of wide controversy. It was largely ignored from the 1930s to the 1950s, when it was revived following the discovery of new paleo-magnetic evidence.- Norman 2192.

Wille, Georg August. Geognostische Beschreibung der Gebirgsmassen zwischen dem Taunus- und Vogelsgebirge, von den Lahn nach dem Main, Rhein und der Nahe, &c., nebst besonderer Beachtung der daselbst vorkommenden verschiedenartigen Mineralquellen. Mit zwei illuminirten petrographischen Karten.- Mainz: bei Florian Kupferberg, 1828. 8° [200 x 115 mm] [8], 168 pp., [2], one table, two fold. maps, partly coloured. Paper covered boards, imitating a leather binding, handwritten label, first pages incl. title more than once stamped, else good copy. \$ 1600.-

First edition, uncommon. Detailed petrographical description of the Taunus, a low mountain range in Hesse, Germany that composes part of the Rhenish Slate Mountains. The mineral content and the textural relationships within the rock are described in detail. Included are two fine & large coloured geological maps: Petrographische Charte von den zwischen dem Taunus- & Vogels-Gebirge gelegenen Gebirgs-Massen von der Lahn nach dem Main, Rhein, und der Nahe [650 x 440 mm], dated 1825 & Geognostische Charte von dem Kurhessischen Amte Dorheim nebst Umgebungen [480 x 340 mm], dated 1825. The author was working as „Kurhessischer Accessor im Salzamt“. The work is dedicated in print to J. F. L. Hausmann, Christian Th. Roth, Friedrich Stromeyer, Ferdinand Wurzer.- KVK: Stabi Berlin, Jena, Halle, Wolfenbüttel, Braunschweig, BSB München, et al.; COPAC: BL London, NHM, Oxford, Cambridge; OCLC: no copy.

Wurzelbau, Johann Philipp von. Uranies Noricae Basis Astronomico-Geographica sive In-clytae S. Rom. Imp. liberae Civitatis Norinbergae situs Geographicus secundum Latitudinem istique aequalem Poli, super horizonta, (Aequatoris etiam) Elevationem, ex observationibus astronomicis deductus, cum praestitutis, Paralaxeos solaris & Refractionum, nec non Obliquitatis Eclipticae sive maximae Solis declinationis rationibus: ubi veterum etiam & antecessorum deducta exhibentur & deducenda secundum Longitudinem ex Lunae eclipsium ... promotione collectus vigiliis ... [Sumptibus authoris, 1697. Folio [345 x 210 mm]. 8 Blatt, 86 pp., 2 Blatt. incl. gestochenem Titel u. 4 (2 gefalteten) Kupfertafeln. Halbpergamentband der Zeit mit handschriftlichem Rückentitel, etwas berieben, kleine Fehlstellen im Bezugspapier. Oben im Bug feuchtrandig, 2 Tafeln gelockert, 1 Tafel mit kleinem Eckausriss, Tafeln etwas fleckig. With engraved title and 4 (2 folding) engraved plates. \$ 4000.-

First edition, rare. Astronomical work on the latitude and longitude of Nürnberg, on sun eclipses and other astronomical observations made at his private observatory which is shown on one plate. Johann Philipp von Wurzelbauer [also spelled Wurzelbaur, Wurzelbau, Wurtzelbaur, Wurtzelbau] (1651-1725) was a German observational astronomer. A native of Nuremberg, Wurzelbauer was a merchant who became an astronomer with the help of Georg Christoph Eimmart [1638-1705], who was then co-director alongside with Sandrart of the Nuremberg School of Painting and himself another private astronomer and also instrument-maker. VD17 39:125144Z [incl. a star chart: "Schema Mercurii Ad Limbum Solis ope telescopii intra tabellam oppositam excepti et observati Norinbergae A.O.R. MDCXC d. 31. Octobris st. v. mane a Joh. Phil. Wurzelbaur"] KVK: Wolfenbüttel [incptl.], Nürnberg [two copies incptl.], Gotha, München; COPAC: no copy [only the later edition of 1719 at BL London]; OCLC: Adler Planetarium, Houghton, San Diego, Bizzell Memorial.

Erste Ausgabe, sehr selten. Der bekannteste Nürnberger Astronom um 1700, Johann Philipp von Wurzelbau[r], (1651-1725) interessierte sich bereits in frühester Jugend für Mathematik und Astronomie, musste aber als Kaufmann in der Messinghandlung seines Stiefvaters arbeiten. "Im Herbst 1678 errichtete Georg Christoph Eimmart (1638-1705) auf der Vestnertorbastei nördlich der Nürnberger Burg die erste Nürnberger Sternwarte. Dadurch angeregt begann Wurzelbau sich ab 1682 in seinem Haus eine eigene Sternwarte einzurichten. Ein markantes Wahrzeichen wurde ein achteckiges Beobachtungstürmchen, das er 1692 auf dem Dach seines Hauses am Spitzenberg 4 anbringen ließ. Im Folgenden zog er sich aus dem Geschäftsleben zurück und widmete sich ganz der Astronomie. Wurzelbau wurde durch genaue Beobachtungen astronomischer Ereignisse wie Sonnen- und Mondfinsternissen oder Merkurtransiten bekannt. Nach Errichtung seiner Sternwarte bemühte er sich, die geographischen Koordinaten Nürnbergs möglichst genau festzulegen. Davon zeugt seine erste größere Veröffentlichung, die Uranies Noricae basis astronomico-geographica von 1697." (Astronomie in Nürnberg). In dem Buch gibt er auch eine Abbildung seines Observatoriums mit dem Quadranten.- Houzeau/l. 11858 Anm.; Poggendorff II, 1377; Pilz, Astronomie in Nürnberg 298 ff.; Kenney 211; not in Barchas; Zinner, Instrumente 594; not in BEA.

Zumbach von Koesfeldt, Lothar [Praes.]; James Stevens [Resp.]. Exercitatio physico-mathematica de vero mundi systemate, quam divino fretus auxilio auctoritate Cassellis [Kassel:] typis Heinrich Harmes, 1713. Quarto [190 x 155 mm] [8], 41 pp., [1] with one fold. plate. Contemporary papercard boards, spine repaired, else fine. \$ 1600.-

Rare dissertation on the true astronomical system by Lothar Zumbach von Koesfeld (1661-1727), defended by an Englishman James [or Jacob] Stevens. Zumbach is mainly known through his mechanical instruments to show planetary movements. Lothar Zumbach von Koesfeld Astronom, „besuchte die von den Jesuiten geleiteten Lehranstalten in Trier und Luxemburg bis zum Jahre 1678, konnte sich aber nicht zu dem ihm sehr nahe gelegten Eintritt in den Orden selbst entschließen, obwohl er ein überzeugter Katholik war und dies auch blieb, als sein Geschick ihn in eine vollkommen protestantische Umgebung verschlagen hatte. Der ihm gebotene Unterricht befriedigte ihn nicht vollständig; er suchte sich deshalb privatim durch das Studium der Werke von Gassendi und Des-cartes fortzubilden und wandte sich dann an der Universität Köln der Medizin zu. Da er nebenher auch eifrig Musik betrieb, so zog er die Aufmerksamkeit des kunstliebenden Landesherrn auf sich und wurde schon 1685 zum kurfürstlichen "Mathematicus und Musicus" ernannt. Theologische Anfeindung machte ihm den Aufenthalt in Köln unerquicklich, und so gab er seine Stellung auf und übersiedelte nach Leiden, wo er 1692 zum Doctor der Heilkunde creirt wurde. Er hielt dann medizinische und astronomische Vorlesungen, folgte jedoch 1708 einem Rufe als Professor der Mathematik an das Collegium Karolinum zu Kassel, welches Landgraf Karl gegründet hatte. Die Berliner Gesellschaft der Wissenschaften nahm ihn als auswärtiges Mitglied auf. Er verblieb auch in Kassel bis zu seinem Tode, der infolge der Wassersucht eintrat. Aus erster Ehe hatte er einen Sohn Konrad, der nachmals ebenfalls Professor der Mathematik in Leiden wurde und ein nachgelassenes Werk des Vaters zum Drucke beförderte. Die ersten Publicationen ("Florae Lugduno-Batavae flores", Leiden 1695; "De sudore et sudoriferio", 1690) schlugen ins medizinische Gebiet ein, aber später handelt es sich nurmehr um astronomische und verwandte Gegenstände. Aus der niederländischen Periode stammt eine sehr brauchbare "Anweisung zum Globusgebrauche" (Amsterdam 1700), während in Kassel mehrere kleinere Schriften erschienen ("Ueber den Regenbogen", 1712; "Vom wahren Weltsysteme", 1713; "Vindiciae mathematicum", 1719). Am bekanntesten wurde Zumbach durch seine Bemühungen, Apparate zu ersinnen, mittelst deren die Bewegungen der Himmelskörper im Kleinen mit möglichster Treue nachgebildet werden sollten; die Schrift über das Planetolabium kam 1696 in Leiden (2. Aufl. Amsterdam 1700), diejenige über das Jovilabium 1716 in Amsterdam, diejenige über das Saturnilabium 1726 ebendort heraus. In seinen späteren Jahren beschäftigte sich Zumbach hauptsächlich mit dem viel umstrittenen Probleme der Meereslänge ("Instrumentum novum seu horologium autobarum ad longitudines inveniendas inventum, ed. Conr. Zumbach", Leiden 1749).- Pogg. II, 1421; KVK: nur Weimar [Verlust?]; Zürich; not in OCLC & COPAC.