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**ANTIQUARIAT Michael Kühn**

Erdmannstraße 11 · 10827 Berlin · Germany

Telefon 0049 · (0)30 · 86 39 69 34

Fax 0049 · (0)30 · 86 39 69 55

[kuehn.rarebooks@arcor.de](mailto:kuehn.rarebooks@arcor.de) · [www.kuehn-books.de](http://www.kuehn-books.de)

## I. Biology & Medicine

### I

#### Chabry, Laurent.

Contribution a l' embryologie normale et teratologique des ascidies simples. Theses presentees a la Faculte des sciences de Paris .... Paris: Germer Bailliere, 1887. 8° [242 x 155 mm]. [4], 155 pp., [I] with 5 plates. Orig. Wrappers, little used, spine little defective, else fine.

\$ 800.-

First edition, rare. In the history of the experimental method in embryology, Laurent Chabry (1855-1893) was the first to level a direct attack at the individual cell or blastomere under the microscope. In doing this, he removed an epistemological barrier and opened the way to a substantial series of experiments which, by way of their theoretical implications, were to provoke a debate on neo-preformation versus neo-epigenesis that was absolutely fundamental to the history of biology. The embryological work of Chabry consists of his doctoral thesis, *Embryologie normale et teratologique des ascidies simples* (1887). In 1884 he started a series of investigations on *mécanique cellulaire*, which Pouchet (his friend and co-worker) defined as follows: „We consider *mécanique moléculaire* very much at the core of the living substance, in its relation to the morphology of living beings.“ To allow him to observe the egg of *Ascidia aspersa* (0,16 mm diameter), he invented an instrument, the *capillaire porte-objet*, to which he then added a *perforateur* for his experiments. His technical experience, backed up by his exceptional abilities, permitted him to elucidate developmental facts with the aid of appropriate instrumentation.- DSB III, 184-85 [Andree Tetry]: „Chabry's work on ascidians assured him an eminent place in the history of embryology. .. E.G. Conklin noted in 1905 the importance and originality of this work with *piqueur* [a simple and precise micromanipulator]: Chabry had shown himself to be both a master and a creator.“ ; Fischer, Jean-Louis. The embryological oeuvre of Laurent Chabry; in: Klaus Sander. Landmarks in developmental biology, 1883-1924. [1997] pp. 23-25; [zum neuen Instrument] Fischer, Jean-Louis; Klaus Sander. How to dart ascidian blastomeres: the embryological micro-tools of Laurent Chabry (1855-1893); in: Klaus Sander. Landmarks in developmental biology, 1883-1924. [1997] pp. 26-28.

### 2

#### Claparede, Edouard; Elias Metchnikow [Metchnikoff; Metschnikow].

Beiträge zur Kenntnis der Entwicklungsgeschichte der Chaetopoden. Von... . Leipzig: Wilhelm Engelmann, 1868. 8°. [2], 43 pp., 6 plates [numb. XII - XVII], partly coloured. Green Halfcloth of time, partly browned, stamped, also plates verso.

\$ 300.-

Rare early work by a later Nobel Prize Winner, with very fine plates.- Elie Metchnikoff (1845-1916), Russian embryologist and immunologist, Nobel Prize Winner for Physiology or Medicine jointly with Paul Ehrlich in 1908. After graduating from the University of Kharkov in 1864, he studied invertebrate and fish embryology at several European centres. He received a doctorate from the University of St. Petersburg in 1867, and after spells of teaching and research at St. Petersburg and Odessa, he took a research post at Messina in Italy. It was there that he began his immunological studies. He observed how mobile cells in starfish larvae surround, engulf and destroy foreign bodies. He called these cells phagocytes, and hypothesized that the role of phagocytes in vertebrate blood is to fight invasion by bacteria.

### 3

#### Cureau de la Chambre, Marin.

Traite De La Connoissance Des Animaux: où tout ce qui a esté dict Pour, & Contre Le Raisonnement Des Bestes, est examiné Par le Sieur de la Chambre Medecin de Monseigneur le Chancelier... A Paris: Chez Pierre Rocolet, Imprimeur du Roy, en la gallerie des Prisonniers, 1647 [i.e. 1648]. 4° [230 x 175 mm]. [4] Bl., 30 pp., [5] Bl., 390 pp. Pgmtbd. d. Zt., berie-ben u. bestossen, etwas fl., innen recht ordentl., am Anfang etwas wasserrand. u. fl. [4 Bl.]

\$ 1200.-

Rare first edition (the only edition in quarto) of this work inspired by Descartes on the nature of beasts / animals & man and their differences. According to Marin Cureau de La Chambre - steering a middle way between the Aristotelian and the Cartesian conception of the soul - everything that lives cognizes and everything that cognizes is alive. Cureau sticks with the general tripart distinction of vegetative, sensitive, and intellectual soul. Each part of the soul has its own cognition. Cognition is the way

in which living beings regulate bodily equilibrium and environmental navigation. This regulative activity is governed by acquired or by innate images. Natural cognition (or instinct) is cognition by innate images only. Cureau develops a highly original theory of natural (or „specialized“) instinct. His theory attempts to explain five features of instinct (innateness, specialization, species-specificity, coercive-ness, teleological nature). Marin Cureau de la Chambre (1594 - 1669) was a French physician and philosopher. He was initially a physician in Le Mans, and around 1630 moved to Paris, where he became a friend and physician to Pierre Séguier (1588-1672). Afterwards, he was a médecin ordinaire to Louis XIV. and was one of the highest paid scientist in the country. Reportedly the monarch was impressed by Cureau de la Chambre's ability to judge human character based on physical appearance. Cureau de la Chambre is largely known for his work in physiognomy. Between 1640 and 1662 he published a five-volume study on man's character and „passions“ called *Caractères des passions*. He wrote articles on many other topics, including palmistry, digestion, „reasoning“ in animals, occult practices and optics. On the latter subject he investigates the nature of light and color, refractions, and the possibility of primary and secondary colors. He also wrote books on philosophy, and published a translation of Aristotle's *Physica*. In 1634 he became an early member of the Académie française, and in 1666 was an original member of the French Academy of Sciences.- Lit.: Markus Wild. Marin Cureau de la Chambre on the Natural Cognition of the Vegetative Soul: An Early Modern Theory of Instinct; in: *Vivarium*, Vol. 46 (2008), pp. 443-461. [ders.] *Die anthropologische Differenz: der Geist der Tiere in der frühen Neuzeit*. De Gruyter, 2006.

## 4

**Driesch, Hans.**

*Analytische Theorie der organischen Entwicklung*. Leipzig: Engelmann, 1894. 8°. XI, 184 pp. with Text-Ill. Original-Wrappers, stamped, else good copy.

\$ 390.-

Uncommon first edition of his early theoretical writings on embryogenesis, the key work of Driesch as critical mechanist, not as a neo-vitalist, which he became later. "Had Hans Driesch died while his *Analytische Theorie der organischen Entwicklung* was in the press, he might have become the Franz Schubert of developmental biology: a genius and „frühvollendet“, with unheard-of treasures sprung from his creative imagination waiting to be acknowledged and admired by posterity. Instead, he lived on happily for nearly half a century. Yet the fates asked a price for this: he was to ruin his reputation ... by preaching vitalism." [Sander, 35] [Klaus Sander. Hans Driesch the critical mechanist: ‚Analytische Theorie der organischen Entwicklung‘ in: *Landmarks in developmental biology 1883-1924*, pp. 32-34] „A number of years before he abandoned embryology, [Driesch] wrote another remarkable book: *Analytische Theorie der organischen Entwicklung* and many of the concepts and questions expressed in it deserve mention here; in fact, the content of this little book deserves an essay, or a series of essays, in itself. Chemismus - that is, chemism as distinguished from chemistry - is emphasized as the basis of ontogenetic processes, and the rhythmicity of chemical action is pointed out. He devotes a whole chapter to *Auslösung*, the release, the triggering, the induction of ontogenetic processes, all implied by the word *Auslösung*. He discusses it in terms of energy relationships; he discusses position and induction [Position und Induktion], and in this connection states that perhaps it is not an organ itself that is induced but a sphere of activity [Umfangskreis] in which it exists, clearly foreshadowing the field theory. He speaks of induction by push-and-pull [Zug- und Druckinduktion], of contact induction [Berührungsinduktion], of chemical induction [chemische Induktion], of chemical induction as a growth regulator. Chains of effects are postulated. Roux's manifoldnesses, he writes, by affecting each other create new manifoldnesses, and these, affecting the original manifoldnesses, create new differences. Here are acting and reacting systems working together by what we would now call feedback. He devotes a full chapter to time-sequences in ontogenetic processes. Induced effects show a definite fixed order in time; development exhibits phases, he repeats, and then he asks the questions, ‚On what do the phases of development depend in the final instance? What are they, in the final instance?‘ Are not these the questions we are asking today when we analyze, or attempt to analyze, the time of action of genes? In fact, Driesch himself discusses causes and effects in terms of nucleus and cytoplasm. And in accounting for interaction between cytoplasm and nucleus he attributes a primary role to enzymes (the ‚ferments‘ in his terminology.)“ [Oppenheimer, *History of Embryology*, pp. 75-77].

## Insect-Eye as Camera

5

**Exner, Sigmund**

Die Physiologie der facettierten Augen von Krebsen und Insecten. Leipzig & Vienna: Deuticke, 1891. 8°. viii, 206 pp. with Microphotographic frontispiece, 7 chromolithographed plates, text figures. Contemporary half calf over marbled boards, spine with gilt title. Marbled endpapers. Original printed front wrapper mounted.

\$ 460.-

First Edition, with the spectacular photograph which aroused some interest – showing how an insect might see the world. Exner's work contains the classic formulation of the mosaic theory of insect vision; his conclusions dominated the field for over seventy years. „Few if any works have ever made more impression on the subsequent 75 years of a special topic than Exner's *Die physiologie der facettierten Augen von Krebsen und Insecten* (Smith, Mittler & Smith, eds., *History of Entomology*, p. 195). Exner, professor of physiology at the University of Vienna, identified the superficial tangential fibers of the molecular layer of the cerebral cortex („Exner's plexus“; see G-M 1413); he also was the first to say that there are specialized micro-circuits in the periphery of our vision for detecting movement. The frontispiece of the present work is a microphotograph of a retinal image in the eye of *Lampyrus spldl.* (a species of glow-worm). *BM (Nat. hist.) VI*, p. 310. Smith, Mittler & Smith, pp. 195, 212.

## Invention of the Concept of »Neural Network«

6

**Exner, Sigmund.**

Entwurf zu einer physiologischen Erklärung der psychischen Erscheinungen. I. Theil [all published]. Leipzig & Wien: Franz Deuticke, 1894. gr.8°. VIII, 380 pp. Halbleinwandbd. d. Zt., mit aufgezogenem Oumschl., Titel mit altem Besitzvermerk, Ecken und Kanten etwas berieben. Or-dentl. Exemplar.

\$ 490.-

First edition. In this work, Sigmund Exner first formulated the concept of a neural network, a concept later used in computer design. In his *Entwurf zu einer physiologischen Erklärung der psychischen Erscheinungen* he made a bold attempt to explain all forms and conditions of human existence, including ethical values, by the interplay of unchangeable scientific facts“ (Lesky, *Vienna Medical School of the 19th Century*, p. 494). Sigmund Exner, one of the leading physiologists of his time, not only made important contributions in the anatomical and functional analyses of the brain, but holds an eminent place in the history of instruments and communication. He was a most ingenious man in planning apparatuses as models as well as tests for perception theories. He organized or helped organizing important research laboratories in Vienna like the Vivarium, run by Hans Przibam, or the Phonogrammarchiv, the world's first of this kind. He was praised for his seminal and creative design of experiments and also as a role model for an empiricist disciplined in drawing theoretical conclusions. Bereits 1894 publiziert Exner einen „Entwurf zu einer physiologischen Erklärung der psychischen Erscheinungen“ mit den Konzepten eines neuronalen Netzes und lokaler Lernregeln in parallelverarbeitenden Nervennetzen. Er folgerte früh, dass Denken und Bewusstsein Funktionen der Netzwerkarchitektur des Gehirns sein müssen. Als bemerkenswert und innovativ kann heute angesehen werden, dass er in einer Zeit, in der die Arbeitsweise des Gehirns im wesentlichen noch im Dunkeln lag, in seinen Publikationen bereits lokale Lernregeln in parallel-verarbeitenden Nervennetzen formulierte.- Boring, *Hist. Exp. Psychology*, 422.

## From »Wunderkammer« to »Science«

7

**[Geoffroy Saint- Hilaire, Isidore]**

Les écarts de la nature ou recueil des principales monstruosités que la nature produit dans le genre animal. Handwritten Manuscript from the library of Isidore Geoffroy Saint-Hilaire. [um 1810] querfolio [260 x 380 mm]. 46 leaves with two titelpages, 44 drawings [each approx. 230 x 170 mm] on tracing paper, table at the end. 5 to 9 lines of explanatory notices under each drawing. Cartonnage of time, used, rubbed and soiled.

\$ 9000.-

An interesting manuscript out of the library of Isidore Geoffroy Saint-Hilaire on "monsters" connecting the times of the Wunderkammern and modern teratology, which he and his father invented. This is a manuscript copy from his hand [?] of figures from „Les Ecart de la Nature“ due to Genevieve de Nangis Regnault (1746-1802), published in 1775 (only images) and reprinted by Jacques Louis Moreau de la Sarthe (1771-1826) in 1808 with little introductory text; two very rare works.

The manuscript text to the images are commentaries by Isidore Geoffroy Saint-Hilaire or the writer of this manuscript to the different images in the printed work. The quality of the images are more technical, like out-line drawings. The text refers to the collection where the specimen is to be found [Wunderkammer; Natural history Collection] and further technical commentaries like classification and description of the object. Further research is recommended.

Although wonders had lost their aura, the monstrous was the topic of several significant debates in the scholarly community during the 18th century. Following a controversy about the relationship between God and Nature, the scientists of the French Académie Royale des Sciences debated about the responsibility of God in the production of unusual or monstrous births. By the middle of the 18th century, Enlightenment philosophers shifted the terms of the debate and boldly set forth theories that presented the monstrous as a non-metaphysical phenomenon.

The book „Les Ecart de la nature ou recueil des principales monstruosités“ (The Deviations of Nature or a Collection of the Main Monstrosities) was originally published in 1775 by the artists Nicolas-François and Geneviève Regnault. For the first time in print, the artists, well aware of the susceptibilities of their readers, exploited the aesthetic beauty of monsters as the prospectus quoted the French poet Boileau: „no monster exists that cannot be made pleasing through art“. Moreau de la Sarthe, the editor of the second edition, targeted a more scientific audience and added a 15-page introduction to the work that included the various sources of monstrosity, as well as a classification system of monstrosities.

In the first half of the 19th century, teratology became a science free from considerations of God's direct interference in natural processes. It also limited its area of study to birth defects, therefore eliminating imaginary monsters. Anatomists approached the question of monstrosity as a whole and confirmed that it was a part of the evolution of the foetus. They depicted ‚monstrosity‘ as part of a natural process, rather than as an independently produced phenomenon. Furthermore, they established a distinction between physical anomaly and monstrosity, and created a specific vocabulary for each of them. It is interesting to note that modern teratologists retained ‚monster‘ as a scientific term, therefore using a word which, through centuries, had inspired many prejudices. The early nineteenth century also witnessed the first attempts by men to artificially create monstrous deformity in living organisms as a way to better understand the mechanisms that led to monstrosity.

The works of the Geoffroy St. Hilaire family were fundamental in the development of teratology. Etienne, the father, demonstrated through comparative anatomical studies that a cause of monstrosity was an interruption in the development of the foetus. This brought to an end lingering support for the theory that a pregnant woman's imagination could influence the development of monstrosities. Rejecting previous classifications which were limited to a description of different monsters, Geoffroy de St. Hilaire elaborated a new classification system emphasizing the character of monstrosity rather than the individual monster. Isidore Geoffroy St-Hilaire continued the research of his father Etienne. He established a classification system more elaborate than that of his father, which had limited monstrosity to extreme anomalies. Furthermore, Isidore refused to view physically unusual individuals as failed ‚normal‘ beings to be rejected by society. [Franck Bourier; DSB V, 358].- Provenance: Isidore Saint-Hilaire's library. (Stamp.)

## Early Medical Illustrations incl. Dermatology

8

**Gersdorff[f], Hans [von]; genannt Schylhans.**

Feldtbuch der Wundartzney, newlich getruckt vnd gebessert. [zu Straßburg bey Hans Schotten, Zum Thyergarten], [1530]. Quarto [197 x 145 mm] [6 nn.], 106 num. Bll. Mit großem Titelholzschnitt in Rot- u. Schwarzdruck, 24 blattgroßen Holz-schnitten, 2 kleinen Textholzschn. u. einigen Holzschn.-Initialen u. -Zierstücken. Halbschweins-lederbd. d. Zt. über Holzdeckeln, Metallschließen u. vergold. Supralibros. Rücken gebräunt. Die Holzschnitte teilweise leicht angeschnitten. Leder etwas fleckig. Spätere Vorsätze. Titelblatt verso mit gelöschtem Stempel. Geringfügig fleckig, doch schönes Exemplar.

\$ 19000.-

Third Strassburg edition, very rare. Not in the trade for decades. Gersdorff was a surgeon and military doctor at the „Antoniter Spital“ in Strass-burg. The text and illustrations of the later editions exhibit more or less pronounced deviations from the original versions, but surpass it neither in their typographical lay-out, nor in the beauty and care with which the woodcuts are reproduced (Steudel). Besides its descriptions of what was then known of anatomy (incl. the anatomy of the skin), the book mainly contains instructions on how to dress wounds. The skin diseases mentioned are Feigblätter, Karbunkulo, Antrax, Krebs, noli me tangere, Wolf and Lepra. It also gives a list of the symptoms of leprosy known in those days. Folio 77 depicts a leper with lumps on his head and Folio 82r shows JOB as a leper with numerous lumps all over his body. The execution of the woodcuts is meticulous. [Ehring: Hautkrankheiten 40/41]

Dritte Straßburger Quartausgabe, extrem selten im Handel, eines der wichtigsten chirurgischen Lehrbücher zu Beginn des 16. Jahr-hunderts, das erstmalig 1517 in Folio bei Schott erschienen war. Hans von Gersdorff ge-nannt Schyl-Hans, (um 1455 - 1529 Straßburg) war ein herausragender Wundarzt seiner Zeit. Er veröffentlichte 1517 in Straßburg das „Feldbuch der Wund-artzney“, das mit Holzschnitten, die Hans Wechtlin zugeschrieben werden, illustriert ist. Das Buch basiert in weiten Teilen auf den Aufzeichnungen des mittelalterlichen Arztes Guy de Chauliac. Gersdorffs Buch fand weite Verbreitung und war für viele Jahre die wichtigste Grundlage der Chirurgie in Europa. Speziell für seine Ausführungen über die Amputation von Extremitäten hat es einen hohen Bekann-heitsgrad. Gersdorff hat dabei mindestens 200 solcher Amputationen selbst durchgeführt. Das Feldbuch enthält vier anatomische Holzschnitte, einschließlich einer Darstellung eines Aderlasses, bei dem die inneren Organe gezeigt werden. Die weiteren Abbildungen zeigen einen, mit vielerlei damals üblichen Waffen verwundeten Mann, ein Skelett und eine weitere Darstellung der inneren Organe. Weitere Bilder des Buches zeigen chirurgische Eingriffe, wie beispielsweise Amputationen, Dentalbohrer, das Richten von Knochen und Lepra. Fast nichts ist über den Illustrator, Johann Ulrich („Hans“) Wechtlin (auch Wächtlin genannt) bekannt, der von ca. 1480 - 1526 lebte. „Gersdorff erscheint in seinem Feldbuch der Wundartzney als ein seinen bis jetzt bekann-ten deutschen Vorgängern an allgemeiner und ärztlicher Bildung bei Weitem überlegener Wundarzt.“ (Hirsch II, 535). „Gersdorff performed nearly 200 amputations. He opposed Paré’s abandonment of boiling oil for the cauterization of wounds.“ The book contains some instructive pictures of early surgical procedures and includes the first printed picture of an amputation.“ (Garrison/Morton 5560).- VD 16 G 1622 [Wolfenbüttel [imperfect]; Göttingen; Erlangen-Nürnberg; Wien]; COPAC: Wellcome Library; UCL; OCLC: Duke University; Yale [Sterling; Harvey Cushing]; Chicago, Texas [Moody Medical], Minnesota; Iowa; SUNY, Princeton, NYAM, Baltimore [11 copies in USA]. - Wellcome I, 2761; Vgl. Waller 3507f., Durling 2061, Goldschmid 36; Muther 1387; Ritter 1001.



## Early Microscopy

9

**Gri[e]ndel von Ach, Johann Franz.**

Micrographia Nova: Oder Neu-Curieuse Beschreibung verschiedener kleiner Körper, Welche Vermittelst eines absonderlichen von dem Authore neuerfundene[n] Vergrößer- Glases Verwunderlich groß vorgestellt werden: Samt Beygefügt[en] dero[selben] Abbildungen, in vierzeh[n] Kupfferplatten bestehend .... Nürnberg: Zieger, 1687. 4°. [4] Bll., 64 pp., [30] gef. Bl. [= mit 55 Figuren auf 30 meist gefalt. Kupfertafeln] Neuerer Lederbd., etwas gebräunt und stockfleckig. Titel etwas angestaubt, aufgezo[n]gen und neu eingefalzt. 6 Tafeln (2 mit längeren) Randeinrissen, pp. 19/20 kleinem Loch mit Buchstabenverlust. 3 Bll. mit Verstärkung des Randes außerhalb des Textes, einige Tafeln am Oberrand leicht angeschnitten. Tafelzahl wechselt bei Vergleichsexemplaren, weil sie teilweise nicht auseinandergeschnitten wurden.

\$ 4000.-

Erste deutsche Ausgabe, parallel zur lateinischen Ausgabe erschienen. In Nürnberg betrieb Franz Griendl von Ach et Wanckhausen (1631-1687) seit 1670 eine Werkstatt zur Herstellung optischer Instrumente. Er schrieb sich 1650 zusammen mit seinem Bruder an der Universität in Ingolstadt ein. 1655 trat er auf Wunsch seiner Eltern in Braunau unter dem Namen Ladislaus in den Kapuzinerorden ein. Zwischen 1655 und 1670 lebte er in den Kapuzinerklöstern von Salzburg, München, Kitzingen und Würzburg. 1670 trat er aus unbekannt[en] Gründen aus dem Orden aus und soll von Regensburg nach Nürnberg gekommen sein. Hier eröffnete er eine Werkstatt, in der er eine Vielzahl von optischen Instrumenten anbot. 1677 verließ er Nürnberg und zog als kurfürstlicher Ingenieur nach Dresden. 1684 löste er seine Ehe auf und ging nach Wien als kaiserlicher Ingenieur. Hier starb er 1687. Er stand in Kontakt zu bedeutenden Persönlichkeiten, darunter mit Gottfried Wilhelm von Leibniz. In einem 1671 an diesen gerichteten Brief führte er sein umfangreiches Lieferprogramm an: dazu gehörten verschiedene Arten von Fernrohren, optische Laternen, „damit man allerhand Figuren, Schriften und Zeichen über eine Gasse bei Nacht auf eine Wand werfen kann, daß man vermeint, es sei lauter Zauberei“. In dem Buch, das er in Wien schrieb und in Dresden publizieren ließ, legte er die Ergebnisse seiner mikroskopischen Untersuchungen dar und schrieb über Insekten, Schimmelpilze und Textilien. den Apothekern riet er, die Qualität von Samen mit dem Mikroskop zu prüfen. Griendl hatte ein Auflichtmikroskop aus Holz mit einem vierfach ausziehbaren Tubus konstruiert, das er in seinem Buch zusammen mit dem optischen Aufbau darstellte. Danach enthielt das Gerät drei Paare von Plankonvexlinsen, deren gewölbte Flächen einander zugewand[t] waren, sich jedoch nicht berührten. Griendl erzielte eine Maximalvergrößerung von etwa 100x.“ [Gerlach. geschichte 55/56; Doppelmayr pp. 111 ff.; Nissen, ZBI 1715; Krivatsy 4997; vgl. Wellcome III, 165, Eales 1038, Horn-Sch. 8583 (alle die latein. Ausgabe vom gleichen Jahr); Hubert de Martin. Griendel von Ach. Ein Mikroskopiker der Barockzeit. Wien: Höhere Graphische Bundes- Lehr und Versuchsanstalt 1970.

10

**Maier, Rudolf.**

Johannes Schenck von Grafenberg. Seine Zeit, sein Leben, seine Werke. Eine historisch-medizinische Skizze. (= Programm wodurch zur Feier des Geburtsfestes ... ) Freiburg: Univ.Buchdruckerei, 1878. 4°. [10], 172 pp. Red half marocco, gilt edges, upper covers gilt printed. Fine copy.

\$ 140.-

Erste Ausgabe. Johann Georg Schenck von Grafenberg (um 1560 - 1620 Hagenau) war ein deutscher Mediziner. Schenck war Sohn des Mediziners Johannes Schenck von Grafenberg. Nach dem Studium der Medizin war er als Arzt in elsässischen Hagenau tätig. Neben der Herausgabe einer Neuauflage des Observationum medicarum rariorum seines Vaters veröffentlichte er eine Reihe von Schriften von eher geringer Bedeutung, unter anderem 1609 seine Monstrorum historia memorabilis über „Monster“, womit Menschen mit Fehlbildungen gemeint waren. Er schrieb aber auch die erste gynäkologische Bibliografie mit dem Titel Pinax autorum qui gynaecia seu muliebra ex instituto scriptis exoluerunt et illustrarunt, darin enthalten wesentliche Beobachtungen von Medizinern auf diesem Gebiet bis zum Beginn des 17. Jahrhunderts, unter anderem auch die des Mediziners Johannes Winter von Andernach. [wikipedia]

**II**

**Malsch, Wilhelm.**

De nova Machina Graefiana. Distorsiones spinae dorsi ad sanandas nec non disquisitio deformatatum istarum. Berolini [Berlin]: apud Dümmler, [1818] 4°. [2], 26 pp., with 1 fold. plate. Contemporary papercard.

\$ 290.-

Rare work on spinal defects and a machine to help protect them, especially for women.-  
COPAC: only BL London; OCLC: only NLM.

**I2**

**Paracelsus.**

Erster [- dritter] Theil Der grossen Wundartzney desz weitberümpften bewerten unnd erfahrenen Theophrasti Paracelsi von Hohenheim der Leib unnd Wundartzney Doctoris von allen Wunden Stich Scheuss ... auss seinem selbst geschriebenen Exemplar wider auff's neüw in Truck verfertigt. Frankfurt a. Main: Weygand Han und Georg Raben, [1562]. 4° [205 x 165 mm]. [12 nn.], 115 num.; [12 nn.], 129 num., [1 nn.]; 78 num., [2 nn.] leaves / Bll. with 3 title woodcuts u. 2 bigger woodcuts within text. Contemporary pigskin over wooden boards with 2 clamps. Partly slightly browned and with finger stains. Some 18 cent. drawings within the text.

\$ 5500.-

Reprint after the edition of Augsburg 1537 (2 parts). The third part „von der frantzösischen Kranckheit“, which was first published 1533. Nachdruck nach der Augsburger Ausgabe von 1537, dort jedoch nur in zwei Teilen. Der dritte Teil bildet die Schrift „von der frantzösischen Kranckheit“, die 1533 von H. Gülfferichs gedruckt erschien. Han und Rabe hatten die Restauflage dieser Ausgabe übernommen und für einen Teil ihrer Neuausgabe verwendet. Die beiden vorhandenen Titelholzschnitte mit verschiedenen Darstellungen von Krankenzimmern. Die beiden ganzseitigen Holzschnitttafeln zeigen chirurgische Instrumente sowie den Planetenkreis.- VD 16, P 458; Sudhoff, Paracelsus 49-51; Durling 3457 (Variante).

**Preceding Baer [PMM 288a], but made  
widely available three Years later**

**I3****Purkinje, Johann Evangelist.**

Symbolae ad ovi avium historiam ante incubationem adjectae sunt tabulae duae lithographicae auctore Joanne Evangelista Purkinje. Leipzig: sumptibus Leopoldi Vossii [Leopold Voss], 1830. 4° [267 x 220 mm] IV, 24 pp. with [2] leaves of plates. Later private cloth backed boards, original upper wrappers bound in. A very good copy with Ex Libris of Rudolf Virchow on inside covers. Privater Halbleinenband um 1900 mit goldgeprägtem Rückenschildchen und eingebundenem Vorderdeckel der Original-Broschur. Ex Libris von Rudolf Virchow am Inneendeckel.

\$ 1900.-

Second advanced edition, a fine association copy being in the former library of Rudolf Virchow (Omnis cellula a cellula). Originally published in a celebration volume on occasion of the birthday of Johann Fr. Blumenbach in 1825 [in Wroclaw, then Breslau University] in small number. „First description of the germinal vesicle in the embryo „Purkinje's vesicle“. „In 1825-1832 Purkinje studied the early development of the avian egg in the body of the female. His discovery and isolation of a minute structure, the germinal vesicle, on the spot of the yolk where the embryo develops - later identified with the cell nucleus - formed a bridge between the large avian egg and the small ova of other animals. It also stimulated the work of K. E. von Baer that led in 1827 to the discovery of the ovum in mammals and man.“ Purkinje was the premiere cytologist of his day, and one of the most influential formulators of the cell theory. He gave his name to structures throughout the body, including the Purkinje cells of the cerebellum. Purkinje, in fact, deserves much of the credit that usually goes to Schwann, for in 1837 he proposed not only that animals were composed principally of cells and cell products (though he left room for fibers) but also that the „basic cellular tissue is again clearly analogous to that of plants“ (Harris 1999, 92). Unfortunately, Schwann did not credit Purkinje in his influential publication. „Reich an Gedanken und Thatsachen ist also die erste Reihe seiner Arbeiten, welche auf dem Gebiete der Sinnesorgane, namentlich des Gesichtsinnes, liegen; aber noch viel reicher und fruchtbringender sind seine morphologischen Untersuchungen geworden. Sie begannen im J. 1825 mit den berühmten, in einer Gratulationsschrift der Breslauer Facultät zum 50jährigen Jubiläum Blumenbach's niedergelegten: „Symbolae ad ovi avium historiam ante incubationem“. P. beschreibt zunächst das Eierstocks-Ei des Huhnes und entdeckt das Keimbläschen, zwei Jahre bevor K. E. v. Baer die bisherige Irrlehre, welche die Graaf'schen Follikel für die Eier der Säugethiere erklärte, durch Auffindung des wirklichen Säugethier-Eies zerstörte. An die Untersuchung der vesicula germinativa in ihren verschiedenen Entwicklungsstadien während der Reifung des Eies schließt sich sodann eine Schilderung des muskulösen Mechanismus, durch welchen das Ei in den Eileiter übergeführt wird und der Umhüllungen, welche das Ei beim Durchgange durch den Oviduct erhält.“ [Heidenhain in: ADB XXVI, 717-731.- Garrison-M. 476; Hirsch/H. IV, 640; DSB XI, 215. KVK: a few libraries; COPAC: Manchester, UCL, St. Andrews, Royal Society; OCLC: Brown, Acad. Natural Sciences Philadelphia, Cornell, Chicago, Kenneth Spencer, Harvard [Ernst Mayr] [this edition, no copy of the 1825 edition]

**Founding of Embryology & Genetics**

**I4****Rathke, Martin Heinrich.**

Abhandlungen zur Bildungs- und Entwicklungs-Geschichte des Men-schen und der Thiere. Erster [und] Zweiter Theil. Leipzig: bei Friedrich Christian Wilhelm Vogel, 1832 - 1833. 4° [269 x 220 mm]. [8], 114 pp. with 7 (partly coloured); [VI], 102 pp., with 7 partly coloured plates. Halbleinwandbd. d. zt., mamoriertes Deckel, Sign.reste am R., oberes Kapitel gering beschädigt, Vorsatz beschrieben, mehrfach gestempelt.

\$ 1400.-

First edition, rare work by this famous zoologist, who is regarded with von Baer and Pander as the founders of modern embryology. Martin Heinrich Rathke (1793-1860), German anatomist. From 1814 he studied natural history and medicine at the University of Göttingen. Three years later he moved to Berlin, where he received his M.D. degree in 1818. He then returned to Danzig to practise medicine. In 1825 he became chief physician at the municipal hospital and in 1826 he was named district physician - Kreisphysicus. In 1829 Rathke he was appointed professor of physiology and pathology at the University of Dorpat, remaining in that position until 1835. While at Dorpat Rathke established contact with Karl Ernst von Baer (1792-1876), who was then professor at Königsberg. Baer had been a student at Göttingen with Heinrich Christian von Pander (1794-1865), and these three men are recognized as the founders of modern embryology. When Baer left Königsberg for St. Petersburg in 1834,

Rathke succeeded him as professor of zoology and anatomy. He joined the faculty at Königsberg in 1835 and remained there until his death. Rathke travelled extensively. While at Dorpat he visited the Baltic states and Finland, as well as St. Petersburg and Moscow. In 1833, accompanied by two students, he went to the Crimean peninsula to conduct scientific investigations. In 1839, while at Königsberg; he visited Norway and Sweden. Rathke's research produced significant contributions to a variety of topics. In his early researches he discovered embryonic precursors of gills in the embryos of higher animals that lack gills as adults. He is best known for his discovery of branchial clefts and branchial arches in the embryos of birds and land animals. He followed the embryological history of these structures and found that the branchial clefts disappear eventually and that the blood vessels adapt themselves to the lungs. He also described and compared the development of the air sacs in birds and the larynx in birds and mammals. In 1838 he published an important study of the pituitary gland and in the following year discovered a diverticulum arising from the embryonic buccal cavity. This embryonic structure is now known as Rathke's pouch. Rathke was also the first to describe the lancet fish, which previously had been considered the larvae of a mollusk. He also wrote several monographs on crustaceans (both independent and parasitic), mollusks and worms, as well as on a number of vertebrates, including the lemming and various reptiles.- Garrison/ Morton 480; DSB XI, 307/308; ADB XXVII, 352-55; Jahn. Gesch. Biologie 338-340: „Als Nachfolger v. Baers in Königsberg verfaßte Rathke eine größere Gesamtdarstellung zur Bildungs- und Entwicklungsgeschichte der Tiere (1832-1833), worin er die Beziehung der Urniere zu den Geschlechtsorganen behandelte und die Funktion des Wolffschen Körpers als embryonales Exkretionsorgan aufklärte; dessen Ausführungsvorgang und seine Verwandlung zum Samenleiter hatte J. Müller bereits 1830 beschrieben. Außerdem erläuterte er das Auftreten embryonaler Schlundspalten bei Säugetieren und anderer höherer Vertebraten. Viel bewundert wurde seine Abhandlung.“

## I5

### **Roux, Wilhelm.**

Die Entwicklungsmechanik der Organismen, eine anatomische Wissenschaft der Zukunft. Festrede, in Anwesenheit ... zur Feier der Eröffnung des neuen k. k. anatomischen Institutes zu Innsbruck. Wien: Urban & Schwarzenberg, 1890. 8°. 26 pp. Original-Wrappers, used, sun faded, with handwritten dedication by the author to [Alex.] Rollet on wrappers.

\$ 490.-

Rare, early programmatic speech for his new science of „Entwicklungsmechanik“ (developmental biology); a dedication copy to the physiologist Alexander Rollett (1834 - 1903) who was a pupil of Ernst Wilhelm von Brücke and Professor of Physiology at Graz University. Wilhelm Roux (1850 - 1924), a German zoologist and pioneer of experimental embryology. For ten years he worked in Breslau (now Wrocław), becoming director of his own Institute of Embryology in 1879. He was professor at Innsbruck, Austria from 1889-95, then accepted a professorial chair at the Anatomical Institute of the University of Halle, a post he retained until 1921. Roux's research was based upon the notion of Entwicklungsmechanik or developmental mechanics: he investigated the mechanisms of functional adaptations of bones, cartilage, and tendons to malformation and disease. His methodology was to interfere with developing embryos and observe the outcome. Roux's investigations were performed mainly on frogs' eggs to research the earliest structures in amphibian development. His goal was to show Darwinian processes at work on the cellular level. Roux's pioneering mechanical methodology was to prove most fruitful in 20th century biology. „It is safe to say that all the analytical embryology of the late nineteenth and of the twentieth century has built upon foundations laid by Wilhelm Roux.“ [Willier/Oppenheimer 1964] Lit: Klaus Sander. Wilhelm Roux and his programme for biological biology; in Landmarks in Developmental biology 1883-1924 [1997] pp. 1-3; DSB XI, 570-75 [Churchill]

16

**Roux, Wilhelm.**

„Einleitung“ zum Archiv für Entwicklungsmechanik der Organismen. Separat-Abdruck aus Bd. I, Heft I. Leipzig: Wilhelm Engelmann, 1894. 8° [230 x 156 mm]. 42 pp. Original-Wrappers, used. Obrosch.

\$ 160.-

Off-Print-Issue, rare. Wilhelm Roux inaugurated his program of mechanisms (Entwicklungsmechanik), the physiological approach to embryology. Towards the end of the decade of the founding of developmental biology (1885), Wilhelm Roux founded the Archiv für Entwicklungsmechanik, demonstrating the new disciplin's consolidation. In this entry to the new journal he once again clarifies his program. „If the science of embryology has an hero, it is probably Wilhelm Roux because he, through the force of his thinking, writing and experimentation, changed the direction of embryology from interest in evolution and teleology to a concern with mechanisms, or in the language of those times, from final to efficient causes.“ [John Bard. Morphogenesis. 1990. pp. 11] Bynum, Heilbron. Eighteen eighty eight and all that. Nature 331, pp. 27-30; DSB XI, 570-75.

17

**Roux, Wilhelm.**

Über die Verzweigungen der Blutgefäße. Eine morphologische Studie. Mit einer Figurentafel. Zur Erlangung der Doctorwürde in der Medicin, Chirurgie und Geburtshülfe vorgelegt der Medicinischen Facultät zu Jena. Naumburg, G. Pätzsche Buchbinderei Otto Hauthal 1877. 4° [220 x 140 mm] 64 pp. mit graphischen Text-Darstellungen u. Tabellen im Text, mit einer herausklappbaren Tafel mit Figuren. Original-Papierleinband ohne Rücken- und Deckeltitel.

\$ 490.-

First edition, dedication copy to Alexander Rollett. His doctoral thesis on the embryological development of blood vessels was a seminal early study in biophysical modelling, a milestone in the study of the cardio-vascular system. It described the relationship between the angle and diameter of bifurcating blood vessels. „In his doctoral thesis: On the bifurcation of blood vessels. A morphological study (1878) Roux realized that an enormous number of detailed studies would be needed to untangle the molecular and regulatory complexity of the vascular system, and that he did not have tools to cope with this enterprise.“ - Lit.: Domenico Ribatti. „A milestone in the study of the vascular system: Wilhelm Roux's doctoral thesis on the bifurcation of blood vessels“, Haematologica 87 (7) [2002], pp. 677-678; Kurz, H; Sandau, K; Christ, B. „On the bifurcation of blood vessels - Wilhelm Roux's doctoral thesis (Jena 1878) - a seminal work for biophysical modelling in developmental biology.“, Ann. Anat. 179 (1; Febr. 1997), pp. 33-36.

18

**Schultze, Max Sigismund.**

Observationes nonnullae de ovorum ranarum segmentatione, quae „Furchungsprocess“ dicitur. Bonnae [Bonn]. formis C. Georgi, 1863. 8°. IV, 68 pp. Pappbd. d. Zt., gutes Exemplar mit Verfasserwidmung.

\$ 600.-

Dedication copy of his important work: „Best contemporary description of the segmentation furrowing of the egg.“ - G/M 488. Max Johann Sigismund Schultze (1825 - 1874), German microscopic anatomist, who studied medicine at Greifswald and Berlin, and was appointed extraordinary professor at Halle in 1854 and five years later ordinary professor of anatomy and histology and director of the Anatomical Institute at Bonn. His name is especially known for his work on the cell theory. Uniting Félix Dujardin's conception of animal sarcode with Hugo von Mohl's of vegetable protoplasma, he pointed out their identity, and included them under the common name of protoplasm, defining the cell as a nucleated mass of protoplasm with or without a cell-wall.

19

**Screta, Heinrich.**

Kurzer bericht von der allgemainen ansteckenden Lagersucht, das ist von dem giftigen unheiligen haupt- hals- brust- magen- und bauchwehe, mit und ohne flecken aus eigener erfahrung, und dem grund der zerglid- und feurkünstlerischen lehrsätzen aufgesetzt und in diesem andern druck um fünf vermehrt und verbessert durch Heinrich Screta von Schottnau und Zavorziz der arznei Doktoren ; Screta von Schottnau und Zavorziz, Heinrich Schaffhausen: Maister ; Schaffhausen: Oschwald, 1685. 8°. [8] Bl., 308 pp., [2] Bl. Pergament d. Zeit. Berieben, bestoßen, Innengelenke gelockert, stellenw. etwas wasserrandig

\$ 1200.-

Second edition, rare. Zweite deutsche Ausgabe über die „Lagersucht“ (Fleckfieber oder Morbus hungaricus). Die Erstausgabe erschien 1675. Fleckfieber, auch „Läusefieber“, „Läusefleckfieber“, oder Faulfieber, ist eine Infektion mit Mikroorganismen der Gattung Rickettsien (*Rickettsia prowazekii*), die durch Läuse, Milben, Zecken oder Flöhe übertragen wird. Früher wurde das Fleckfieber auch als Typhus levisimus, Typhus ambulatorius, Hunger- oder Kriegstyphus bezeichnet (obwohl nicht mit Typhus verwandt), da es sich unter schlechten hygienischen Bedingungen in Kriegszeiten mitunter epidemieartig ausbreitete. Dass es sich um eine eigenständige Erkrankung handelt, entdeckte William Jenner in London 1847. „Dieses Buch ist durch seine ganz absonderliche, durch alle 312 Seiten durchgeführte Orthographie bemerkenswerth: alle Hauptwörter klein, ueberall ai für ei, kw für qu, sehr selten die Dehnung ie oder h nach langem Vokal und, was das Auffallendste ist, der Buchstabe v gänzlich verbannt.“ [Maegis] Heinrich Screta von Zavorziz (1637 - 1689), Dr.med., Physikus in Schopfheim und Basel, Württemberg. Leibarzt. Er studierte zu Heidelberg und Basel Medicin und besonders Pharmacie, daneben auch Philosophie und Mathematik, wurde 1671 zu Basel Doct. Med., nachher Stadt-Physikus zu Schaffhausen. 1682 in die Acad. Nat. Cur. als Nicander aufgenommen, war auch Leibarzt des wuerttemberg. Kaiser und anderer Hoefe. Er starb am Schlag. Lit.: C. Maegis: Die Schaffhauser Schriftsteller, 1869; Scherz, Franz. Die Heilmittel in den Schriften des Schaffhauser Arztes Heinrich Screta über die Lagersucht. Basel 1942. Scherz, Franz. Der Schaffhauser Arzt Heinrich Screta von Schottnau und Zavorziz und sein Werk „Die Lagersucht“ (in: Mitteilungen Naturforschenden Gesell. 1934/35, 12, pp. 71ff.- VD17 39:1424945; KVK: Dresden, Gotha, Wolfenbüttel, Stabi Berlin [Kriegsverlust ?])

## Wellness in 19th Century, Munich

20

**Steinbacher, Josef.**

Die Regenerationskur oder die Verjüngung des menschlichen Organismus nach ihren einzelnen Heilfaktoren. 4 Bände. Augsburg: Schlosser, 1861 - 1864. gr.8°. Mit gestoch. Titel, 3 (1 gefalt.) lithogr. Tafeln, Frontisp. mit mont. Photographie u. einigen Textholzstichen. Original-Lederbd., tls. lichtrandig, leichte Gebrauchsspuren. Auf dem Titel eine Ansicht des projektierten russisch-türkischen Bades in München. Vorsatz des ersten Bandes u. Frontispiz m. Widmung des Verfassers. Leicht stockfleckig. Sehr repräsentativ gebunden.

\$ 800.-

First edition, rare in complete form; a dedication copy. Josef Steinbacher (1819-1869) leitete von 1852-1854 die Anstalt in Brunnenthal bei München, die er 1863 erwarb. Dazwischen betrieb er eine Naturheilanstalt in München und war von 1861 - 1863 Leiter des Dianabades im Englischen Garten.- Hirsch.-H. V, 407; Sabine Ludyga. Geschichte der Naturheilkunde in Bayern im 19. Jahrhundert. 75 ff. KVK: not in COPAC; OCLC: Chicago, NL Medicine [only vol. I, II].

**Natural History of the Devil Working on Earth**

21

**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 unnummerierte, 542 nummerierte, 5 unnummerierte Blätter mit Holzschnitt auf Titel und Holzschnitt-Druckermarke von Jost Amman am Schluß. Blindgeprägter Schweinslederholzdeckelband d. Zeit m. 2 Messingschließen, diese erneuert, etwas berieben und bestoßen. Sehr gut erhalten, kaum fleckig u. nur minimal gebräunt. Titel im Rand an zwei Stellen alt hinterlegt. Innenspiegel m. einer längeren wohl zeitgenöss. Eintragung u. einer a. d. 18. Jhdt. Contemporary Pigskin over wooden boards, claps. Fine copy.

\$ 13000.-

First edition of this natural history of the devil in all his appearances: a thetrum diabolicum, with notes on gambling, drugs, dancing, prostitution, renting agency [money lending], et al.

Erste Ausgabe dieses von dem bedeutendsten Frankfurter Verleger dieser Jahre veranstalteten Sammelbandes, einer Zusammenstellung der zeitgenössischen Teuffelliteratur, die großenteils in anderen Verlagen vorveröffentlicht war. VD 16 F 904; Lexikon des gesamten Buchwesens II, 580 (Feyerabend); Lexikon des gesamten Buchwesens VII, 386 (Teuffelliteratur); 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 und 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 Teuffelliteratur, 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 - Pestilentz-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 Teufelsvorstellung verbindet; die Sprache ist bei aller Rhetorik volksnah und bildkräftig und darin deutlich von Luther inspiriert“ (Lex. d. ges. Buchwesens VII, 386).

## Plants, Medicine and early pharmacy

22

**Thurneysser zum Thurm, Leonhard.**

Historia, sive descriptio plantarum omnium, tam domesticarum quam exoticarum: Earundem virtutes influentiales, elementares & naturales, subtilitates, necnon icones. Berlin, M. Hentzke, 1578. Folio [327 x 210 mm]. 7 nn. Bll., CLVI pp., 10 nn. Bll. Mit breiter Holzschnitt-Titelbordüre, 1 Porträt, 1 fast ganzseitigem Holzschnitt, 35 Pflanzenholzschnitten mit Bordüre, zahlr. kleineren Holzschnitten und Diagrammen im Text und Druckermarke. Pappbd. d. Zt. mit altem handschriftl. Rücken-Titel, etwas beschabt u. wasserfleckig. Rebacked.

\$ 6000.-

Seltene erste lateinische Ausgabe, gleichzeitig mit der ersten deutschen erschienen; seltener Druck der nur 5 Jahre tätigen 3. Berliner Offizin, die Thurneissers eigene Druckerei erworben hatte (Benzing, Buchdrucker 47).- VD 16, T 1174; Adams T 690; Nissen, BBI 1963. Thurneisser plante ein großes botanisches Werk in zehn Büchern, von dem nur dieses erste Buch fertiggestellt wurde. Das seltene Pflanzenwerk beschreibt die Doldengewächse aus botanischer, medizinisch-pharmazeutischer und okkultur Sicht, wobei Thurneisser den Einfluß der Gestirne auf Wachstum und Wirkungsweise von Pflanzen nachweisen und sie nach dieser Wirkweise ordnen wollte. Es ist eines der ersten Kräuterbücher mit Beschreibung der Heilwirkung der Pflanzen nach astrologischen Gesichtspunkten, Pflanzenbenennungen auch in hebräischer, syrischer und griechischer Sprache. Die Holzschnitte stammen von P. Hille nach Franz Friedrich aus Frankfurt/ Oder. Die großen Holzschnitte zeigen Pflanzen, die kleinen Destilliergefäße, Öfen, Karaffen, Kolben, aber auch Tierabbildungen.

Rare first latin edition, printed parallel with the german, but the latin edition being more influential. The work (a German edition appeared the same year) is a great eccentricity in botanical literature. The woodcuts of plants are enclosed within borders which give the Hebrew (occasionally Syriac) and Greek names of the plants. In the corners of the border are the constellations governing the plant, its alchemical complexion, and its virtues. Smaller figures of skeletons or internal organs indicate the parts of the body the plant affects. Other woodcuts of distillation apparatus illustrate the preparation of medicinal extracts. The work combines alchemy, astrology, the doctrine of signatures, and medical botany. The works that Thurneisser published at this time were impressive examples of the printer's art, illustrated with woodcuts and etchings, and incorporating Greek, Arabic, Syrian, Hebrew and Chaldean typefaces. Since his books often contain words in languages that he did not know, he was publicly accused of harbouring in his inkpot a devil who dictated to him' (DSB XIII, 397). Thurneisser 'began life by learning the trade of his father, who was a goldsmith, but he also picked up some knowledge of botany, medicine, and, possibly, anatomy under Vesalius. In 1548 he left Basel, and went to England, France, and Germany, where he became a soldier. Afterwards he worked as a metallurgist, and again as a goldsmith... From 1560 to 1570 he was in the service of the Archduke Ferdinand, and travelled far and near, from the Orkney islands down to Africa, and to the East, everywhere learning medicine and metallurgy... From 1570 to 1584 he was physician to John Georg, Churfürst of Brandenburg, and had a laboratory and printing press in the so-called „Grey monastery“ at Berlin. By various means he amassed a large fortune, and at one time employed between two and three hundred people. He collected a library, a museum, and a herbarium, kept a menagerie, and encouraged the fine and practical arts, such as the manufacture of saltpetre, alum, glass, paper, and also coloured glass... In 1584 he finally left Berlin, went to Italy, where he tried to practice medicine and alchemy; he was at Rome in 1591, and died in a monastery at Cologne 9 July, 1596, and was buried beside Albertus Magnus, according to his own request' (Ferguson). The outstanding woodcut title design [not present here] is signed, left-of-centre, 'P F H' and is by Peter Hille, who also was responsible for the portraits and probably the coat-of-arms on the colophon leaf. Hille died in 1574, so the work must have been sometime in preparation.- Nissen, BBI 1963; MNE II, 293; Brüning 516; Partington II, 152/53; ADB XXXVII, 226; Ferguson II, 450-455; Ferchl 536; Moehsen XI.

**Beyond the Limits of Physical Anthropology**

23

**Tiedemann, Friedrich.**

Das Hirn des Negers mit dem des Europaers und Orang-Outangs verglichen von .... Heidelberg: im Verlag bei Karl Winter, 1837. 4° [320 x 240 mm] [2], VI, [2], 84 pp. with 6 lithograph plates, somewhat smaller in size. Contemp. grey boards, light wear to back and edges, inside with heavier paperspotting, plates little browned as always, waterstained & foxed throughout, otherwise very good & unopened.

\$ 1000.-

First edition thus; originally published in English in the „Philosophical Transactions of the Royal Society“ in London in 1836 under the title „On the brain of the negro, compared with that of the European and the Orang-Outang“. Friedrich Tiedemann was professor in Landshut and Heidelberg and one of the greatest anatomists and zoologists of his time. In his preface to this volume he writes that his research was provoked by the discussions in the English parliament about the slave-trade and the emancipation of the blacks. The object of his investigations was, in his own words, to assay ‚the almost generally accepted theory that negroes are a human race.. much lower than other races, closely related to monkeys‘: Tiedemann investigated the brains and crania of black Africans, other human races and orang-outangs in anatomical collections in Europe. The results of his investigations surprised his contemporaries: even though the crania of black Africans were indeed smaller than those of Europeans, their brains were as large and as heavy. Both were distinguished completely from that of the hominoid apes. Tiedemann concluded that blacks indeed were as capable as Europeans. Once he had concluded no essential differences in the structure of the brain, he investigates whether there are differences in the ‚capabilities of the soul‘ (Seelen-Fähigkeiten). He concluded that, despite the unfavourable conditions under which many blacks had to live, their intellectual capabilities were equally developed. In the last chapter Tiedemann goes beyond the limits of physical anthropology - his book was one of the earliest works in that field - and investigates the reasons for prevailing unfavourable opinions about the intellectual faculties of blacks. He concluded that this was fully due to te slave trade and to the inhuman and cruel treatment of the slaves in America. He then proves that blacks indeed were able to great intellectual performances: he gives examples of moral and intellectual achievements of African blacks in the use of natural resources, their institutions, languages, arts and crafts, etc. and he proves that the disregard for the social and religious life of Africans is fully unjustified. He ends with examples of people of black descent who have distinguished themselves in the arts and sciences: Eliza Capitein, Benjamin Banneker, Olaudah Equiano, Ignatius Sancho, Juan Latino, and many others. DSB, XIII, 402 - 404; Cushing T113. see Ruch, *Bibliographia Primatologica*, 1875, listing only the London, 1836 first edition. Not in the Courville Collection. Not in Waller, nor any of the other collection catalogues usually consulted. Poggendorff II, 1106; Garrison-Morton 988 & 5336.4; & Michaud XLI, 526-9.

24

**Valla, Giorgio.**

Georgii Vallae Placentini viri clariss. de simplicium natura liber unus Argentinae: per Henricum Sybold, [August 1528] 8° [145 x 92 mm] [104] Bll. title within woodcut architectural border. Later [17cent.] full calf, spine gilt in compartments, red edges, rulled boards. First gatherings waterstained, than fresh and clean. Title with old ownership inscriptions: Nicolai Gaul, Medicina studiosi, Guillemain Arch. Bis. N. Fauel, destroyed Ex Libris in inner cover: J. O[?]ert[?] M.D. [Medicinae Doctor]. Verso title handwritten content with ink. [bound with:] Giorgio Valla. Georgii Vallae Placentini viri clariss. De natura oculorum, item aristotelis problemata quae oculos pertinent. - Argentine: per Henricum Sybold, [no date, 1529]. [48] Bll. [bound with:] Giorgio Valla. Georgii Vallae Placentini viri Clariss. De physicis quaestiones. - Argentine: Henricum Sybold, [1529] [39] Bll. [bound with:] Giorgio Valla. Georgii Vallae Placentini viri Clariss. De Vrinae significatione, ex Hippocrate, Paulo Aeginata, ac Theophilo. Item Galeni Quaestiones in Hippocratem. Dioclis epistola, de bona uale tudine tuenda, ad Antigonum regem. - Argentine [Straßburg]: Henricum Sybold, [1529]. 23 Bll. [bound with:] Giorgio Valla. Georgii Vallae Placentini viri Clariss. De natura partium animalium. - Argentinae [Straßburg]: per Henricum Sybold, [1529]. [63] Bll. [bound with:] Odo [von Meung]; Walafridus Strabo. Aemilius Macer De Herbarum Virtutibus; iam primum emacu-lator, tersiórque in lucem aeditus. ... Strabi Galli, ... Hortulus uernatißimus, Vterq; scholijs Ioanis Atrociani illustratus. - Basel: Faber, Johannes aus Emmich, 1527. [73] Bll., [8] with title and foreword bound after the text.

\$ 6900.-

Nice „Sammelband“ with rare first printings of Giorgio Valla. He was born at Piacenza in 1430, physician and philologist, lectured on physics and medicine at Pavia, Milan and Venice, where he died in 1499. He had a fine library [see: Heiberg in: Beiheft XVI, Centralblatt f. Bibliothekswesen]. I. First and only [?] edition of an alphabetical compendium of herbs and their medicinal properties. Most of the texts of Valla (1430-99) were discovered and printed a century later by the physician and printer Heinrich S[e]ybold of Strassburg. Specimens from the press of this early medical printer are rare.- NLM/Durling 4485; VD16 V 195; Chrisman S1.9.6.; Catalogue des livres ... Strasbourg (1960) 2383. II. Very rare; one of the earliest works dealing exclusively with ophthalmology. Art L'Ancien XIII-XVI 1845; Maggs 520, 92. D16 V 182. III. L'Art Ancien 1844; VD16 V 194. IV. VD16 V 198. V. VD16 V 184. VI. First edition to contain the commentary by Johannes Atrocianus (Acronius, a native from Akrum in West Friesland), professor of mathematics, etc. at Basel. Der „Macer floridus“ des Odo Magdunensis war das meistgelesene Kräuterbuch des Mittelalters und beschreibt in der Standardversion die Heilwirkungen von 77 Pflanzen in lateinischen Hexametern. Latein. Pflanzengedicht in Hexametern, verfasst von Odo Magdunensis, einem gelehrten Kleriker, wahrscheinlich Arzt, aus Meung an der Loire, entstanden zwischen um 840 und um 1100. Der Autor benutzt Quellen wie Plinius, Galen, Walafrid Strabo (mitediert) und Constaninus Africanus. Der Macer behandelt die medizinische Wirkung der Pflanzen erstmals auf der Grundlage der ‚Säftelehre‘, d.h. er klassifiziert die Heilkräuter nach den Primärqualitäten warm, kalt, feucht, trocken. Als das erfolgreichste mittelalterl. Standardwerk zur klösterlichen Kräuterheilkunde (Phytotherapie) wurde er übersetzt ins Deutsche, Englische, Französische, Dänische, Spanische und Italienische. Die ersten einer Vielzahl von Drucklegungen erschienen 1477 in Venedig und 1485 in Mainz („Älterer deutscher Macer“). Eine mit 198 Pflanzendarstellungen bebilderte Ausgabe ist der „Herbarius depictus per fratrum Vitum Auslasser de Fumpp prope Schwaz monachum Epersperg 1479“; Choulant, Handbuch 241; Pritzel 5711. VD16 O 269 [Macer Floridus] & VD16 W 771 [Strabus].- Giorgio Valla (1430-1499), ital. Humanist & Philologe. G. Valla's Hauptleistungen sind im Bereich der Übersetzung und der philologischen Bearbeitung klassischer griechischer Texte angesiedelt; im besonderen betrifft das die frühen Vitruv-Studien. Sein wichtigstes Werk ‚De expetendis et fugiendis rebus‘ wurde posthum von Aldo Manuzio veröffentlicht und stellt eine umfassende humanistische Enzyklopädie dar. Sie enthält sowohl neue Übersetzungen als auch freie Wiedergaben antiker Schriftsteller. In einem der Traktate, in dem über Architektur diskutiert wird, tragen Vallas Vitruv- Studien ihre Früchte, insofern als Valla mehrere Konzepte des antiken Baumeisters Vitruv erörtert. Valla war Professor für Latein an der ‚Scuola di San Marco‘ und hatte seine Schüler in den Vitruv-Studien unterwiesen. Im Jahre 1492 begann Valla in Venedig eine Vorlesungsreihe über Vitruvs ‚De architectura‘, die sich hoher Beliebtheit erfreute und 1494 fortgesetzt wurde. Valla, dessen Ziel die Edition des antiken Traktats war, gelangte in seinen Vorlesungen bis zum 8. Buch. Vallas Kreis befand sich in Venedig und zu ihm zählten mehrere Humanisten, die seine Forschungen weiter vermitteln konnten, so zum Beispiel Antonio Urceo gen. il Codro, und Urbano Bolzano. Letzterer zeichnete sich als eifriger Erforscher von Hieroglyphen aus, was auch Valla interessierte. Im Jahre 1497 erschien in Venedig ‚Cleonidae harmonicum introductorium interprete Giorgio Valla Placentino‘ zusammen mit einer Edition von Vitruvs ‚De architectura‘ und Frontins ‚De aquaeductibus urbis Roma‘. Obschon für die Werke von Vitruv und Frontin kein Herausgeber genannt wurde, wird angenommen, dass auch sie von Valla bearbeitet wurden.

## II. Natural history

### World of Butterflies

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**Butler, Arthur Gardiner.**

Illustrations of Typical Specimens of Lepidoptera Heterocera in the Collection of The British Museum. [Part 8: The Lepidoptera heterocera of the Nilgiri districts by George Francis Hampson; Part 9: The Macrolepidoptera heterocera of Ceylon by George Francis Hampson] 9 parts in 9 Vols. [= cpl.] London: The Trustees, 1877 4°. XIII, 62 pp., XX Taf.; X, 62 pp., Taf. XXI-XL.; XVIII, 82 pp., Taf. XLI-LX.; XII, 74 pp., Taf. LXXVIII-C.; XV, 89 pp., Taf. CI-CXX.; IV, 124 pp., Taf. CXXI-CXXXVIII.; IV, 144 pp., Taf. CXXXIX-CLVI.; V, 182 pp., Taf. CLVII- CLXX-VI. Original-Publisher cloth, rubbed and soiled, spine of one vol. defective, remises of old library label at lower part of the spine. Titel stamped & discarded [once], overall a nice, complete and fresh set. Partly uncut.

\$ 3200.-

First edition, complete set. Junk Rara 224: „complete copies of this beautiful work are rare.“ Arthur Gardiner Butler (1844 - 1925) was an English entomologist. He worked at the British Museum working on the taxonomy of birds, insects, and spiders. He also published articles on spiders of Australia, Galapagos, of Madagascar, etc. Sir George Francis Hampson (1860 - 1936), British entomologist. Hampson travelled to India to become a tea-planter in the Nilgiri Hills of the Madras presidency (now Tamil Nadu), where he became interested in moths and butterflies. When he returned to England he became a voluntary worker at the Natural History Museum, where he wrote The Lepidoptera of the Nilgiri District (1891) and The Lepidoptera Heterocera of Ceylon (1893) as parts 8 and 9 of Illustrations of Typical Specimens of Lepidoptera Heterocera of the British Museum. He then commenced work on The Fauna of British India, Moths (4 vols 1892-1896).

### Botanical Manuscript

26

**Connop, [Charlotte B.] [Watercolourist]**

Wild Flowers painted from Nature .... Watercolours. [Sussex, 1844 - 1853]. Folio. Hand-coloured lithographed title plate with presentation inscription from her sister Eliza and 64 watercolours of wild flowers (5 loose) and another loose watercolour in another hand, most with manuscript captions, some very slight browning and/or foxing affecting a very few pages, ink inscription on front free endpaper, foxed and slightly dusty. Plain original half morocco, rubbed.

\$ 2800.-

Fine english watercolour album of flowers and plants. Painted in St. Leonards and „Up Park“ in Sussex, in Emsworth, Leigh and Hayling Island in Hampshire, Tenbury in Worcestershire, Ludlow Castle in Shropshire and West Abington, Coombe Royal and Farringdon in Devon. Bought by the previous owner from Charles W. Traylen in 1981.



27

**Franck von Franckenau, Georg.**

Flora Francica aucta, oder vollständiges Kräuter-Lexicon: worinnen aller bekannten aus- und inländischen Kräuter, Bäume, Stauden, Blumen, Wurzeln [et]c. unterschiedene lateinisch- und deutsche Namen, Temperamente, Kräfte, Nutzen, Wirkungen und Präeparata gründlich beschrieben werden vormals von Herrn G. Frank von Frankenu lateinisch heraus gegeben, nachgehends ins Deutsche übersetzt und nunmehr bey dieser fünften Auflage um die Helfte mit mehr als zehen tausend Worten vermehrt, auch sonst verbessert. [= Lexicon vegeta-bilium usualium; dt.] Leipzig: In der Großischen Handlung, 1753. 8°. 712 pp., 136 pp. with Frontisp.- Portr. within pagination. Lederbd. etwas späterer Zeit, mit R.schild, R.vergold., Deckel leicht aufgebo-gen, etwas beschabt, gering wurmst., doch schönes Exemplar, dekorativ gebunden.

\$ 800.-

Later edition of the flora of the Pfalz; first published in 1680. Georg Franck von Franckenau was a German physician and botanist. He was Teacher of Anatomy, Chemistry and Botany at Jena and became Professor of Medicine at the University of Heidelberg in 1679. He was Personal Physician to the Margrave of Baden, the Duke of Württemberg and the Archbishop of Trier. Spätere Ausgabe des alphabetischen Verzeichnisses von Apotheker- und Heilpflanzen, das zum Vademekum jedes Mediziners der Zeit seit der ersten Ausgabe von 1672 geworden war. Das Lexikon führt die Pflanzen mit ihrem lateinischen, dann deutschen und auch griechischen Namen auf und - besonders geschätzt - gibt Hinweise zur Wirkung und Anwendung. Francks Büchlein war eine wichtige Quelle für die Arbeiten Carl von Linnés. Georg Franck von Franckenau (1644 in Naumburg (Saale) - 1704 Kopenhagen) war ein deutscher Mediziner und Botaniker, der in Straßburg Medizin und Anatomie studierte. 1666 wurde ihm die Doktorwürde verliehen. 1671 folgte ein Ruf an die Universität Heidelberg, wo er als Professor und als Leibarzt der Kurfürsten Karl Ludwig (1617-1680) und Karl (1651-1675) tätig war. Aufgrund des Pfälzischen Erbfolgekrieges verließ er Heidelberg und siedelte nach Frankfurt über, von wo aus er an die damalige Universität in Wittenberg ging. 1692 wurde er von Kaiser Leopold I. geadelt; am 30. November 1693 wurde er als Mitglied („Fellow“) in die Royal Society aufgenommen. Seine letzte Stellung hatte er in Dänemark am Hofe Christian V. inne. In einer 1682 unter dem Namen seines aus Frankfurt am Main stammenden Dok-toranden Johannes Richier veröffentlichten Abhandlung mit d. Titel „De ovis paschalibus“ erwähnt Franck erstmals den in den protestanti-schen Gebieten des Elsass und der Pfalz sich ausbreitenden Volksglauben an den Osterhasen.- Pritzel 3015. Wellcome III, 59. Vgl. Ferchl 162. KVK: Berlin, Halle, Hamburg. Copac: BL London; this ed. not in American Libraries [OCLC].

28

**Haller, Albrecht von.**

Opuscula sua Botanica prius edita recensuit retractavit auxit coniuncta edidit Albertus Hallerus. Goottingae [Göttingen] apud Io. Wilh. Schmid 8°. [8], 396 pp. mit gestoch. Titelvignette und 5 gefalt. Kupfertafeln. Pergamentbd. d. Zt., m. R.schild, Fuß leicht angerändert, gebräunt, leicht fleckig.

\$ 900.-

First edition. „The quantity of work achieved by Haller in the seventeen years during which he occupied his Göttingen professorship was immense. Apart from the ordinary work of his classes, which entailed the task of newly organizing a botanical garden (the Alte Botanische Garten der Universität Göttingen), an anatomical theatre and museum, an obstetrical school, and similar institutions, he carried on without interruption those original investigations in botany and physiology, the results of which are preserved in the numerous works associated with his name; he continued also to persevere in his youthful habit of poetical composition, while at the same time he conducted a monthly journal (the Göttingische gelehrte Anzeigen), to which he is said to have contributed twelve thousand articles relating to almost every branch of human knowledge. He also warmly interested himself in most of the religious questions, both ephemeral and permanent, of his day; and the erection of the Reformed church in Göttingen was mainly due to his unwearied energy.“ [wikipedia] Erste Aus-gabe dieser Sammlung von teilweise überarbeiteten kleineren Schriften. Albrecht von Haller (1708 - 1777) war ein Schweizer Mediziner, Botaniker und Wissenschaftspublizist. Seine frühen Arbeiten waren der Botanik ge-widmet. Wegen des breiten Spektrums seiner Fähigkeiten galt Haller als Universalgelehrter. Seine Leistungen auf anatomischem und bibliographischem Gebiet waren für die Medizin von nachhaltiger Bedeutung. Daneben trat Haller als Dichter und Literaturkritiker der Aufklärungsepoche hervor, bekannt vor allem als Schöpfer der monumentalen Dichtung Die Alpen. - Lundsgaard 462; Nissen BBI 775; Pritzel 3722; Stafleu-C. 2308, Waller 11530.

29

**Lauremberg, Peter.**

Horticultura Libris II. comprehensa; huic nostro coelo & solo accommodata... in qua quicquid ad hortum proficue colendum, et eleganter instruendum facit, explicatur. [and:] Apparatus Plantarius: tributus in duos libros. I. De plantis bulbosis. II. De plantis tuberosis ... 2 Vols. in 1. Frankfurt a. Main: Matthias Merian, 1654. 4° [205 x 162 mm] 196 pp. with engraved title, 29 full-page engraved plates, 6 of which are printed in the text; 168 pp. with engraved title and 36 engraved plates in the text. Dunkelbrauner Lederbd. d. Zt. über Holzdeckeln mit blingepägt. Fileten u. Eckfleurons, kl. Mittelstück, goldgepägter Besitzvermerk: I.R.V.B. Bindebänder fehlen. Stellenweise gebräunt, wenig stockfl., Spiegel und Vorsatz angestaubt, die Tafel zu I. an den Schluß gebunden. Tafeln rückseitig mit Stempel der ULB Halle. Vorsatz mit Eintrag: Ermlitz. Aus der ehemals Apelschen Bibliothek in Ermlitz. Browning as is usual with this book.

\$ 2500.-

First editions, second issue, of one of the best of the early 17th-century gardening manuals, scientific in its detail and approach. It is known to have influenced John Evelyn who quotes it in his unpublished 'Elysium Britannicum'. Morton describes the work as 'typical of the experience and ideas that began to flow into botany from horticulture' and goes on to recount how Lauremberg rejected the idea of the 'plant soul' having a specific location, because 'horticulturalists knew that plants could live and reproduce themselves from very small pieces cut from the roots (i.e. rhizomes, stolons, etc.) as well as from branches, stems, seeds, and even leaves (as in the case of the Indian fig). Therefore the soul or vital force (vigor vitalis) is not in one part more than another, but diffused through the whole plant body... Lauremberg describes his own experiment, lasting three years, in which two hundred vine cuttings were grown in close association with two varieties of cabbage in order to test an ancient belief, mentioned by Pliny, that vine and cabbage adversely affect each other. He found, however, that both species flourished and there was no evidence of mutual inhibition... In other experiments he found, contrary to tradition, that rue and fig did not benefit from interplanting. There were many gardener's notions about how seeds were best oriented when sown; the wrong way was said to give dwarf or unthrifty plants. Again, Lauremberg made his own observations with seeds of pea, cucurbita, walnut, almond, date and others, finding that the stem grew upwards and the root downwards irrespective of the original orientation, and that the alleged effects of malplacement were "empty superstition" (Morton, History of botanical science p. 222-3). The work covers a variety of topics, including the layout of the orchard and flower and herb gardens, topiary, labyrinths, sundials, etc. Five plates illustrate gardening tools, 18 are of designs for parterres and labyrinths, and two are for topiary. The second title, 'Apparatus plantarum', the sequel to the 'Horticultura', is devoted to bulbous and tuberous plants, including the most popular garden flowers of the time. It 'deals not only with their medicinal and culinary uses, but their care and propagation, places in literature, etc.' (Johnston).- Hunt 219 u. 221; Wüthrich 34/35; Cobres 655,1; Nissen BBI 1147 & 1146.

Peter Lauremberg (1585 Rostock - 1639) war ein vielseitiger Hochschullehrer, Rektor der Universität Rostock und Schriftsteller der Barockzeit. Er wurde als Sohn des Professors Wilhelm Lauremberg in Rostock geboren und den Fußstapfen des Vaters folgend, studierte er Medizin und Astronomie in Rostock und erwarb 1607 hier auch den Magistergrad. 1608 verfolgte er medizinische Studien in Leiden. Als Hofmeister bereiste er Belgien und Frankreich. 1611 promovierte Peter Lauremberg zum Doktor der Medizin in Paris und nahm an der Universität von Montauban seine erste Professur, die der Philosophie, an. Nach knapp drei Jahren verließ Peter Lauremberg Frankreich, kehrte 1614 in die Heimat zurück und akzeptierte eine Anstellung als Professor für Mathematik und Physik an der Hamburger Akademisches Gymnasium. 1624 folgte er einem Ruf als Professor für Poesie, Mathematik und Medizin an der Universität Rostock, zu deren Rektor er 1635 gewählt wurde. In Rostock verblieb Peter Lauremberg bis zu seinem Tode. Er verfasste eine große Zahl oft aufgelegter wissenschaftlicher Lehrbücher auf verschiedenen Wissenschaftsgebieten. Die 700 Artikel seiner riesigen Kuriositäten- Anthologie, der ersten ihrer Art in deutscher Sprache, zeugen von seinen umfassenden Kenntnissen. Die Blumenkupper wurden wohl unter Merians Leitung in seiner Offizin von Gesellen gestochen.

## Fine Botanical Manuscript

29

### [Manuscript] British Wild Flowers.

[An album of 233 fine botanical watercolours, with manuscript captions and some with notes, many with place where recorded. Two pages of manuscript index at front. All images laid down, a few with tissue guards] [England, July 1845 to August 1847] Folio [400 x 280 mm] 233 watercolours on 179 pages [mainly each leaf with one plate], some browning and soiling, mostly at the edges where glued, a few with some foxing, some leaves loose or working loose. Original half calf, extensively rubbed, joints split, spine very worn, but professionally repaired. In modern paper box.

\$ 12000.-

A high quality botanical manuscript with 233 fine coloured and executed watercolours. This manuscript seems to derive from a (semi)professional hand (not amateur). The majority of the plants painted are in the area of Thornton-le-Dale in Yorkshire; other places include Goathland, Hessle, Scarborough, Beverley/Yorkshire, King-thorpe/ Lincolnshire, Aylesbury, Chipping Norton and Brighton.

## With the often Missing Plates

30

### Marsham, Thomas.

[Entomologia Britannica] Coleoptera Britannica, sistens insecta coleoptera Britanniae indigena, secundum methodum linnaeanam disposita. Auctore Thomä Marsham, ... . Vol. I. In two volumes [the second vol. being the plates]. [= all published] 2 Vols. [incl. plate vol. without any title] London: apud J. White, Fleet-Street, 1802. 8° [210 x 130 mm] III-XXXI, [I], 547 pp., [I, Errata], with 30 partly handcolored engraved plates. Without the half-title calling: Entomologia Britannica, Vol. I, which was never bound in. Contemporary polished calf, two black labels, gilt spine in compartments, rubbed and soiled, one hinges little cracked, else a fine copy. Lederbd. d. Zt., sauberes Exemplar.

\$ 1900.-

It is Marsham's magnum opus, a rare book with the plates. A collaborative work listing 1,307 species. Further volumes on other orders were intended but never published: a common fate of early works. A duplicate of the „Entomologia Britannica“ with a different titlepage. Thomas Marsham (died 1819) was an English entomologist, specializing on beetles, a well educated man. He was Secretary to the West India Dock Company for many years and during the Napoleonic Wars became an officer in the volunteer corps of the Home Guard in 1802. He was a founder member of the Linnean Society and its Secretary from 1788-98 and Treasurer from 1798-1816. He was a friend of James Francis Stephens, William Kirby and Alexander Maccleay. His collection of Coleoptera was purchased by J. F. Stephens (1792-1852) and was incorporated into his own collection, which is now in the Natural History Museum (London) along with some manuscripts.- KVK: only Leipzig, Munich [both without plates]; COPAC: Natinal Library Scotland, BL London, Manchester [without plates], Oxford [probably with plates]; OCLC: AMNH, Harvard, North Carolina [2 vols, the second being the plate volume], Berkeley, Minnea-polis, et al. [most of the libraries have the variant without the plates; with the plates it is rare !]

## Nature-Printing with Butterflies

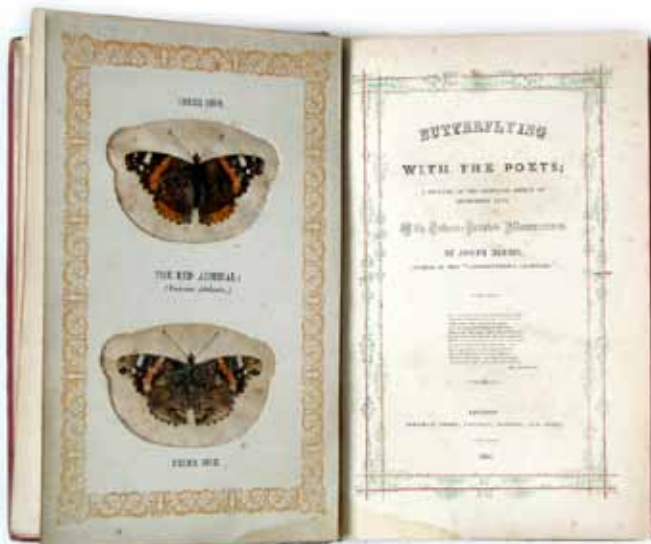
32

**Merrin, Joseph.**

Butterflying with the poets; A picture of the poetical aspect of butterfly life. London: Longman, Green, Longman, Roberts, and Green, 1864. 8° VIII, [2], IX-XV, [1, blank], 126 pp., [4, publ. adv.], with 15 plates with 30 images Original gilt printed red leather vol, spine restored, heavier rubbed & soiled, gilt edges, inside with partly heavier foxing, newer inscription in ink on front-fly.

\$ 1200.-

Rare book included nature-printed butterflies: „an elegant novelty in the way of book illustration“ by Joseph Merrin of Gloucester, author of the „Lepidopterist’s Calendar.“ On 15 plates 30 illustrations are shown, the upper and under sides of fifteen different kinds. „[The book] is illustrated in a novel and elegant manner by thirty nature-printed pictures, showing the upper and under sides of fifteen species of butterflies in all their natural colours. These are mounted on card tablets, with a coloured border, a space being cut out for the butterfly of a different shape on each card. The system of Nature-Printing, as applicable to Butterflies and Moths, which the author has improved, permanently transfers to paper the colours of the insects themselves. The most delicate varieties of shade, marking, and colour, are by this means faithfully preserved, and a brilliant reality is given to the picture, of which the most carefully finished portrait of the artist would be deficient. Owing, however, to the small number of specimens obtainable, and the great manipulative labour required to prepare the impressions from them, the price of any work giving the novel and beautiful species of illustration must necessarily be high, and the number of copies executed very limited.“ (Publisher announcement) Capturing the exact details of a plant or insect by printing directly from the natural object has been a goal of printers for hundreds of years. Eighteenth century attempts to print directly from dried plants failed because the material was too fragile to withstand the printing process. In the nineteenth century, printers realized that they could first impress the object into another, harder material which could then be used to make the printing surface. Wood, softened by steam, and various types of metal were used to make a mold from the plants. A successful process was developed in 1853 by Alois Auer, Director of the Government Printing Office of Vienna, and brought to England by Henry Bradbury. Termed „nature printing,“ the process involved passing the object to be reproduced between a steel plate and a lead plate, through two rollers closely screwed together. The high pressure imbeds the object-for example a leaf-into the lead plate. When colored ink is applied to this stamped lead plate, a copy can be produced. Several colors could be applied individually, by hand, to appropriate areas of the plate and all colors printed together from one pull of the press. Also referred to as „nature printing“ was a different process used specifically for making impressions of butterfly wings. In 1731, The Art of Drawing described a process for sandwiching butterfly wings between two pieces of paper and, by exerting pressure through a press, producing the colored image of the wings. Similar methods were employed at the end of the nineteenth century. The most successful was As Nature Shows Them: Moths and Butterflies of the United States, published in Boston in 1900 by Sherman F. Denton: The bodies of the insects are engraved and colored by hand, but the wings are actual insect’s wings pressed onto the paper. One reason that butterfly printing is a lost art is the amount of time and patience it takes. In the book, Denton describes capturing some 50,000 insects for the project. - KVK: no copy; COPAC: Oxford, BL London [1863 ed.]; NL Scotland, Scotland [1864 ed.]; OCLC: Yale, Amherst, Minnesota, Harvard, Columbia.



33

**Plinius Secundus, Caius.**

*Naturalis hystoriae libri xxxvii, diligenti labore nuper nec antea in Parr-hisiorum Academia emendatiores impressi atque recogniti.* [Kommentiert von Ermolao Barbaro. Hrsg. von Nicolas Maillard]. Paris: N. Des Prez, J. Frelon und F. Regnault, 1511. Folio. 20 nn., CCLVIII [recte 262] num. Bl. Mit Holzschnittbordüre und Druckermarken auf dem Titel sowie einigen Holzschnitt-Initialen. Blindgeprägter Schweinslederbd. über Holzdeckeln mit Eckbeschlägen und 2 funktionsfähigen Schließen, Kapital defekt; einige Wurmlöcher, stärker gebräunt, beschabt und be-stoßen. Innengelenke gebrochen, Vorsätze fehlen, Titel mit mehreren alten Besitzvermerken und kleinen Randaläsuren; stellenweise umfangreiche Marginalien von alter Hand, am Ende drei Bl. mit handschriftl. Notizen beige-bunden, einzelne Wurmlöcher, gering wasserrandig, vereinzelt leicht fle-ckig u. gebräunt. Besitzvermerk von Johann Wilhelm Sohr (1785-1861), Schriftsteller und Oberregie-rungsrat in Breslau (ADB XXXIV, 550).

\$ 2900.-

Very scarce Paris edition with fine handwritten manuscript annotations by a period hand; reprints the text in Barbarus' recension of the Venetia edition of 1497. Ermolao Barbaro (1454 - 1493), Italian translator & humanist scholar. From an early age he studied in Rome and eventually received a degree from the University of Padua. In 1477 he became there a professor of philosophy. He translated and edited many classical Greek works into Latin imitating Cicero's prose during his lifetime. Innovative for his time, he also reviewed as many manuscripts as possible to check the text, avoiding some of the mistakes that occur by manual copying. He made commentaries on the classical texts of the *Naturalis Historia* by Pliny and the *De Materia Medica* by Dioscorides. Like his contemporaries, he compared the two works and noticed that they present similar information. Plinius Secundus, one of the foremost authorities on science in ancient Europe. Pliny was educated in Rome, and for some years he followed a military career. After serving in the army, he studied jurisprudence, but retired c.57 A.D. to devote himself to scholarly study and writing. Pliny wrote many historical and scientific works, including *De Laculatione Equestri*, *Studiosus*, *Dubius Sermo*, a 20-book history of the Germanic Wars, and 31 books of Roman history covering 41 to 71 A.D. Pliny's great encyclopedia of nature and art in 37 books, the *Historia Naturalis*, is the only one of his works that has been preserved. The first ten books were published in 77 A.D. and the remainder after his death, edited probably by his nephew, Pliny the Younger. In 79 A.D., eager to examine more closely the great eruption of Mount Vesuvius that overwhelmed and destroyed Herculaneum and Pompeii, he sailed across the bay of Naples to Stabiae, where he was suffocated by the vapors from the eruption.- STC 356; Adams P 1552; Moreau 191; Schweiger II, 785; Choulant 189; Durling 3688 Anm. (zum Nachdruck von 1514).- E. W. Gudger. Pliny's *Historia naturalis*. The Most Popular Natural History Ever Published in: *Isis*, Vol. 6, No. 3 (1924), pp. 269-281.

## Germans Counterstrike against Curtis

34

**Reider, Jacob Ernst von.**

Annalen der Blumisterei für Gartenbesitzer, Kunstgärtner, Saamenhändler und Blumenfreunde. In Verbindung mit mehreren Blumenfreunden und Kunstgärtnern herausgegeben ... Erster Jahrgang. Vols. I-IV [of XII] in 13 installments. Nürnberg [Nuremberg], Leipzig: Conrad Heinrich Zeh, 1825 - 1828. 8° [217 x 125 mm] [2], 296, [2, Errata]; 316 pp., 316 pp., [4], 332 pp. with 96 finely engraved plates, hand-coloured as published. Original printed Wrappers, little used, little foxing, else fine copy, plate with bright colouring.

\$ 1400.-

First volumes of probably the most attractive German series on recently introduced exotic plants by the German horticulturist and judicial magistrate Reider. The plates in bright coloring depicts each a new introduced flower, cacti, etc. The alternative title of wrappers reads: *Annalen der Blumisterei oder Beschreibung seltener und neuer vorzüglicher Blumen- und Ziergewächse sammt deren Kultur- und Vermehrungsmethoden.* - Nissen, BBI, 2210; Stafleu & Cowan 8907, 1; ADB XXVII, 682-683: „Gutsbesitzer zu Redersdorf bei Staffelstein. Er war einer der fruchtbarsten Schriftsteller über Landwirtschaft und Gartenbau“ COPAC: BL London, Cambridge; OCLC: Chicago Botanical Gardens, Cornell; Harvard Botany; Michigan State; Minnesota Biomedical; Morton Arboretum.



35

**Schrank, Franz von Paula.**

Allgemeine Anleitung, die Naturgeschichte zu studiren. München: bey Johann Baptist Strobl, 1783. 8° [175 x 100 mm] 223 pp., [I, blank] Contemporary halfleather, marbled paper covers, red edges, inside some browning to the first leaves, else fine.

\$ 900.-

A rare short work on Natural History with 4 lectures: On the study of natural history (1-44), on natural systems (45-73), on natural cabinets (74-176), to study botany without master (177-215) and a short amendment. Franz von Paula Schrank (1747-1835) was a German botanist and entomologist. Schrank was the first director of the botanical gardens in Munich from 1809 to 1832. He was the first author to use the genus name *Triops*. He used this term in his work on the fauna of Bavaria in 1803.- COPAC: Oxford, BL London; OCLC: Clarmont Univ, Oklahoma [Bizzell], NY Botanical Gardens.

## The Birth of Experimental Biology

36

**Trembley, Abraham.**

Memoires pour servir a l'histoire d'un genre de polypes d'eau douce, a bras en forme de cornes. Par .... Leiden: chez Jean & Herman Verbeek, 1744. 4° [254 x 200] XV, [I], 324 pp., [2] with 13 folding engraved plates numbered 1-13 by Pieter Lyonet (1708-1789) [plates 1-5 engraved by Jakob van Schley (1715-1779) after Lyonet] and 8 etched vignettes [4 by Pronk]. Contemporary half calf, gilt spine in compartments, little rubbed and soiled, hinges holding firm but with little cracks, else a fine & clean copy with only minor spotting. Provenance copy.

\$ 1900.-

First edition of this „beautifully produced volume.. with very fine illustrations by Pieter Lyonet“ [Baker] with Ex Libris of famous Rudolf Virchow. Later editions have reduced plates to octavo size. „In 1740 the scientific world was electrified by Trembley's discovery that the green hydra (*Chlorohydra viridissima*) was definitely an animal, even though it contained chlorophyll and - a fact even more astonishing - possessed powers of multiplication from artificial division, hitherto thought to be unique to plants. Trembley first demonstrated the hydra's regenerative abilities by bisecting a specimen horizontally, so that the tentacles were confined to one part; he then observed the regeneration of both fragments over the course of several days, until two complete and indistinguishable organisms had been formed. In further investigations Trembley described the hydra's living substance, conducted feeding experiments, demonstrated that a hydra could survive and feed after being turned inside out, made a detailed study of the budding process, and performed the first permanent graft of animal tissues by inserting one hydra within another. He was also the first to describe cell division of a sort in the fission of a protozoan.“ [Baker; DSB XIII, 457-58].- Garrison/Morton 307; Norman 2094; Nissen ZBI 4163; Forerunners of Darwin, 116 ff.; Shirley A. Roe, Development of A. v. Haller's Views on Embryology, in: Journal of the Hist, of Biology, 8, pp.167 ff.; Feuerstein-Herz [ed.] Die große Kette der Wesen. Ordnungen in der Naturgeschichte d. frühen Neuzeit, Nr. 44 (pp. 204).

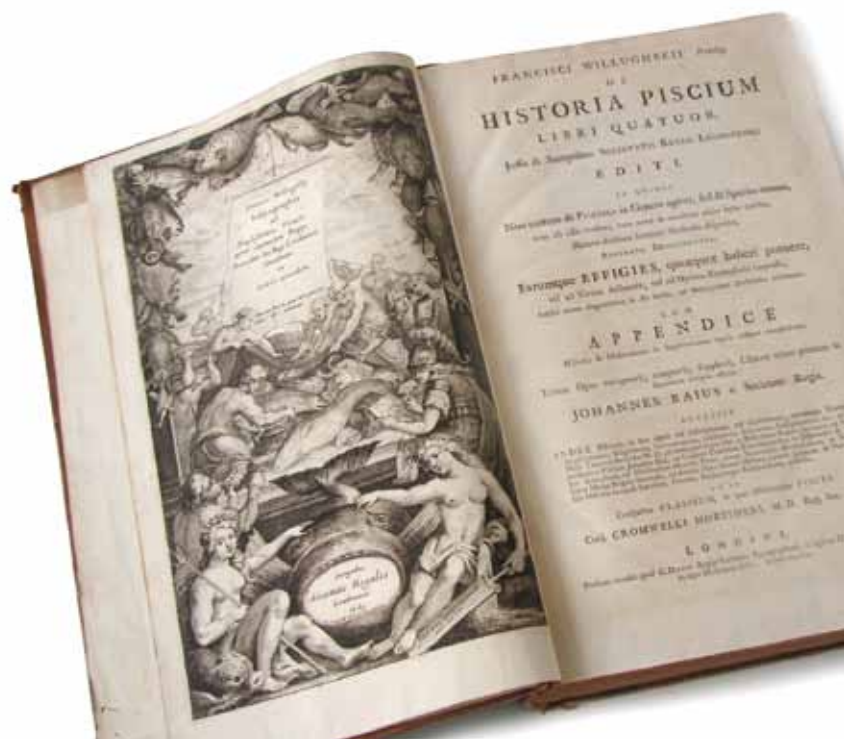
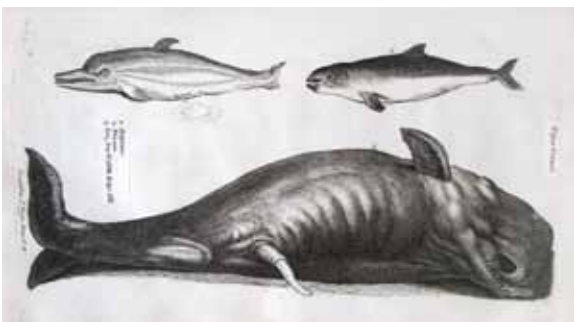
37

**Willughby, Francis.**

De Historia Piscium libri quatuor, jussu & sumptibus Societatis Regiae Londinensis editi. Totum opus recognovit, coaptavit, supplevit, librum etiam primum & secundum integros adjecit J. Raius e Societate Regia. Accessit Index Piscium in hoc opere ... Londini: C. Davis, 1743. Folio. [8], 344 pp., [32], [12], [12]. Engraved allegorical title by Paul van Somer, dated 1685 and 187 plates (Nissen, 1951). Engraved headpieces. Contemporary calf, gilt rules consisting of flower motifs on spine, with raised bands and compartments with black armorial tooling, red gilt lettered label, outer turn-ins and all edges gilt. Some of the plates bear contemporary letterpress cancel slips over their captions. A well preserved and attractive copy.

EUR 3900.-

Re-issue of the 1686 edition. De Historia Piscium (The History of Fishes) was published by the Royal Society in 1686. It was unpopular and sold poorly, causing severe strain on the finances of the Royal Society. This resulted in the Society being unable to meet its promise to finance the publication of Newton's *Philosophiae Naturalis Principia Mathematica* („Mathematical Principles of Natural Philosophy“, better known simply as *Principia*), leaving this to Edmund Halley, who was then the clerk of the society. After Halley had personally financed the publication of *Principia*, he was informed that the society could no longer afford to provide him the promised annual salary of £50. Instead, Halley was paid with left-over copies of *De Historia Piscium*. These copies were sold and published again in 1743, with slightly corrections on the plates. Francis Willughby (sometimes spelt Willoughby) (1635 - 1672) was an English ornithologist and ichthyologist. He was a student, friend and colleague of the naturalist John Ray at Cambridge University, and shared some of his expeditions and interests. Ray saw Willughby's *Ornithologia libri tres* through the press after Willughby's sudden death. In 1662 they travelled to the west coast of England to study the breeding seabirds. Between 1663 and 1666 they toured Eu-rope together, travelling through the Netherlands, Germany, Switzerland and Italy. They separated at Naples and Willoughby returned home via Spain. On returning to England they made plans to publish the results of their studies. Willughby died from pleurisy during the preparation of this work, but Ray published Willughby's *Ornithologia libri tres* in 1676, with an English edition two years later. This is considered the beginning of scientific ornithology in Europe, revolutionizing ornithological taxonomy by organizing species according to their physical characteristics. The *Historia Piscium*, although it bears only Willughby's name (1635-1672) on the title page, is in large part the work of John Ray (1627-1705). Willughby described and dissected all the fishes and Ray arranged them under classes and families. As for species, the authors assembled not only those that they described from nature, amounting to 178, but also those of Rondelet, Belon, Salviani, Piso and others, whose descriptions they interpolated with their own. The total number came to 420. But Willughby and Ray occasionally failed to recognize that some species were identical to others taken from the preceding works, so there is some duplication (Pietsch, 1995). New illustrations to their work are marked with a dagger. The text of the first edition was printed at the expense of Bishop John Fell, while the plates were financed by several members of the Royal Society, particularly by the Society's president Samuel Pepys to whom the work is dedicated. Each plate bears the name of the donor.- Nissen, *Schöne Fischbücher*, 1951, 130; Pietsch, 1995.



### III. Geology – Chemistry

38

**Ballenstedt, Johann Georg Justus.**

Die Urwelt oder Beweis von dem Daseyn und Untergange von mehr als einer Vorwelt. Erste Abtheilung: Archäologische Abhandlungen. Zweite Abtheilung: Geologisch-Naturhistorische Abhandlungen; Dritte und letzte Abtheilung: Historisch-Antiquarische Abhandlungen. 3 Bde. in 1. Quedlinburg, Leipzig: bey Gottfried Basse, 1819. 8° XIV, 2 Bl., 236 pp.; XIV, 1 Bl., 233 pp.; XII, 1 Bl., 238 pp., 1 Bl. Vlg sanz. Halblederbd. d. Zt.

\$ 480.-

First edition, early paleontological and evolutionary work. 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 erntete, aber mit seinen Anschauungen noch viel weniger als die großen franz. Deszendenztheoretiker und Gegner Cuviers 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. In dem obigen Werk suchte er den Beweis eines voradamischen Bestandes der Erde zu führen und erklärte die Abstammung des Menschengeschlechtes von einem Paare, das Paradies, den Sündenfall des ersten Menschen, die Sündfluth, die Arche Noah's für Mythen des Alterthums, welche sich mit Anwendung der Vernunft und der Erfahrungen der Wissenschaft auf natürlichem Wege erklären ließen. Er vertheidigte gegen Cuvier's und Blumenbach's Ansicht das höhere Alter des Menschengeschlechtes, ohne jedoch die Beweiskraft der hierfür angeführten Beispiele von aufgefundenen Menschenresten aus der Vorzeit mit kritischer Schärfe zu prüfen,... [Gümbel in ADB]. - Pogg. I, 94/95. ADB II, 22; KVK: some copies; COPAC: only BL London; OCLC: Chicago, Oklahoma.

39

**Ballenstedt, Johann Georg Justus.**

Archiv für die neuesten Entdeckungen aus der Urwelt. Ein Journal in zwanglosen Heften in Gesellschaft von mehreren Gelehrten. Erster Band, Heft 1.-2., Zweiter Band, Heft 1.-2., Dritter Band, Heft 1, Vierter Band, Heft 1, Fünfter Band, Heft 1.-2., Sechster Band, Heft 1.-2. 6 Hefte und ein Band. [maybe missing 2 parts ?].- Quedlinburg u. Leipzig: bei Gottfried Basse, 1819-1824. 8°. 217 pp., [1], [4]; 221-440 pp., [8] with one plate showing a Megatherium from Paraguay; 208 pp., [4], 209-426 pp., [6]; 221 pp., [3]; 212 pp., [12]; 414 pp., [2]; 411 pp., [4].

\$ 800.-

A long run of the rare and early paleontological journal published by a lesser known german pre-evolutionist. Other contributors were Johann Friedrich Krüger, Dehne, Niemeier, Hansemann et al. - interesting for the reception of „higher“ international science through amateur scientists.

40

**Bernoulli, Johann[es].**

Dissertatio de effervescentia et fermentatione Novâ Hypothesi fundata, ... sub praesidio ... Nicolai Eglingeri ... publice discutiendam exhibet Johannes Bernoulli, Basil. Auctor ad D[ie] 19. Septembr. Ann. [1690]. Basiliae [Basel]: typis Jacobi Bertschii [Jakob Bertsch], 1690. 4° [200 x 147 mm] 16 Leaves with some text-illustr. Brown Wrappers, else fine. Brauner Kleisterpapier-Umschlag, beschnitten, ordentl.

\$ 3800.-

Exceedingly rare dissertation of Johann Bernoulli (1667-1748) on the mechanics of effervescence and fermentation. The dissertation was very favourable reviewed by Leibniz in Acta Eruditorum, where he calls him: „the clever author, following the steps of his learned brother.“ This was the first of his two „physico-mechanical dissertations by the mathematician Bernoulli. The author, then in his twenties, was in the process of becoming one of the leading mathematicians in Europe. Bernoulli defines effervescence and fermentation as more and less violent types of internal motion. he complains that chemists are not clear in their definitions and use horrible names; he proposes to free science from its imperfections and reconstitute it on physical principles or mechanical laws. Bernoulli attempt to explain chemical reactions physico-mechanically as the result of collisions between two kinds of corpuscular micro-elements, one breaking up the other into parts, thus releasing enclosed air. Bernoulli denigrates the chemical school and cites as his sources the British Scientists, Robert Boyle and John Mayow and the Italian Giovanni Borelli, who were the pioneers of the application of the mechanical philosophy to chemistry. Boyle's efforts to explain chemical phenomena mechanically based on a corpuscular theory exerted profound influence on contemporary science. since corpuscles are not visible, no direct confirmation was possible.- Partington II, 628-31 [very detailed]; Basthom. History of Muscle Physiology. 175-76. Sehr seltene erste Ausgabe von Johann Bernoullis erster Veröffentlichung, einer unter dem Vorsitz des Baseler Medizinprofessors Nikolaus Eglinger (1645-1711) verfaßten Abhandlung über das Aufbrausen und die Gärung von Flüssigkeiten.- BMGC II, 1112, 123 (inkl.); Poggend. I, 157; Hirsch/H. I, 493; Osler 2024, Wellcome II, 152 u. Wolfenb. 239; nicht bei Lesky u. Waller, nicht im VD 17.- KVK: no copy in German Libraries [?]; Basel, Bern, COPAC: BL London; OCLC: no copy for USA.

41

**Cartheuser, Johann Friedrich.**

Io. Friderici Cartheuser ... Dissertatio Chymico-Physica De Genericis Quibusdam Plantarum Principiis Hactenus Plerumque Neglectis [Frankfurt/Oder, Univ., Chem. Phys. Diss., 1754] Francofurti ad Viadrum [Frankfurt an der Oder], Apud Ioann. Christian. Kleyb, 1754. 8° [169 x 102 mm] 78 pp., [1] Bl. Neuer Papierumschlag, Ex Libris am Innendeckel, etwas eng beschnitten.

\$ 390.-

Rare first edition, his dissertation on the properties of plant sap. One of two printings in the same year [Publisher Winter, resp. Kleyb]. Johann Friedrich Cartheuser (1740-1777), a doctor of medicine of Halle, held the chairs of chemistry, pharmacy, and materia medica at Frankfurt (1740-1759), to which he later added the chairs of anatomy, botany, therapeutics, and pathology. A member of the Berlin Academy, famed for his knowledge of chemistry and botany, which he used in his chemical examination of plants, he directed the attention of other chemists to various vegetable products. Not in usual chemical and medical bibliographies.- Blake 80; Ferguson 147 [other works]. Johann Friedrich Cartheuser (1704-1777), Chemiker und Arzt, von Einfluß für die Entwicklung einer wissenschaftlichen Pharmacie. Er lebte in Frankfurt a/O., wo er als Dr. med. und als Professor, zunächst der Chemie, Pharmacie und Materia medica, dann der Pathologie und Therapie wirkte. Seine Originalforschungen bestehen hauptsächlich aus Untersuchungen von Pflanzensäften: „Dissertatio chymico-physica de genericis quibusdam plantarum principiis hactenus plerumque neglectis“ (1754). [ADB].- KVK: Erlangen-Nürnberg, Eichstätt, München; Stabi Berlin, Halle Leopoldina, Jena, Greifswald, et al. COPAC: BL London; OCLC: Harvard [other printer]; Univ. Wisconsin.

## Newton's Bed Lecture

42

**Dickinson, Edmund.**

*Physica Vetus & Vera: sive Tractatus de Naturali veritate hexaëmeri Mosaici. Per quem probatur in historia Creationis, tum Generationis universae methodum atque modum, tum verae Philosophiae principia, strictim atque breviter à Mose tradi.* London: H. Illife for H. Ribotteau, 1702. 4°. [I2; incl. added engraved title], 340 pp., [4] pp. with added engraved title-page [M. V. Gucht], small tear in blank portion & several full-page engravings in the text. Contemporary sheep, spine gilt in compartments, some rubbing, head of spine with a small chip, else quite good.

\$ 2400.-

First edition of „the chief work of the author“ [Duveen, 171], a rare work. Edmund Dickinson (1624-1707), educated at Eton and Merton, was elected honorary fellow of the College of Physicians in 1664 and was physician to both Charles II and James II. Dickinson was intensely interested in alchemy and chemistry and Charles II built him a laboratory under the royal bedchamber where the king, the Duke of Buckingham, and Dickinson performed experiments. Newton owned, annotated, and dog-eared a copy of Dickinson's alchemical book: *Epistola ad Theodorum Mundanum* (Oxford 1686). „The great work on which he spent his latest years was a system of philosophy set forth in [the present work]... In this laborious work, on which years had been spent, and part of which he had to write twice in consequence of an accident by fire to the manuscript, the author pretends to establish a philosophy founded on principles collected out of the ‚Pentateuch‘. In a very confused manner he mixes up his notions on the atomic theory with passages from Greek and Latin writers as well as from the Bible. The book, however, attracted attention, and was published in Rotterdam, 1703, and in Leoburg, 1705.“ Lit.: DNB V, 939; Roy G. Neville *Hist. Chem. Library I*, 358-59; *Ferchl 123*; *Ferguson I*, 210; not in *Young Coll.*, *Partington II*, 328, *Wellcome II*, 464.

43

**[Kunckel von Löwenstern, Johann; attr.].**

*Wieder Neu aufgerichtete und vergrösserte ... Kunst- und Werck-Schul. Deren Erster Theil meistens allerley Erdenckliche nützlich und bewehrte Feuer- Künste vorstellet: Als I. die wahre Erkäntnus der Ertzen und Metallen ... II. Die schöne Form-Kunst ... III. Allerhand schöne Glas-Künste ... IV. Von denen natürlichen Edelgesteinen ... V. Allerley ... Chymische Secreta und Medicinalia .... Th. 2: Der Neu-aufgerichteten und Vergrösserten In ... Theilen verfassten curieusen Kunst- und Werck-Schul ... Anderer Theil ... von vielen Jahren her ... zusammengetragen ... . 2 Bände. Nürnberg: Johann Zieger, 1705 - 1707. 4°. [6], 1357 pp., [57 (= Register)]; [I2], 1463 pp., [55, letzten 2 weiß] mit 1 gest. Frontisp. von I. C. Marchand u. über 250 teils größeren und ganzseit. Textholzschnitten. Halblederbde. d. Zt., berieben u. bestoßen, vereinzelt Rand-ausbesserungen ohne Textverlust.*

\$ 2600.-

Quarto edition of this compendium of the arts, including technics, manufacture of different specimens, optics, et al. Vollständig sehr seltenes, anonym publiziertes, Kunckel zugeschriebenes, ausführliches Kompendium der Technik, Chemie, Metallurgie, etc. in Anwendung u. a. auf das Kunsthandwerk. Teil 1 handelt vorwiegend über die „Feuer-Künste“, u. a. Scheiden von Gold und Silber, Gießen, Legierungen, Töpferei, Porzellanherstellung, Glasuren, Glasmacherei, Rubinglas, Schleifen optischer Gläser, Glasmalerei, Edelsteine, Perlen, Korallen, Herstellung des Phosphors, Balsamierung. Teil 2 enthält ausführliche Rezepte zur Herstellung und Anwendung von Farben, Firnissen, Beizen, Vergoldungen, Lederfarben für Buchbinder, Marmor, Elfenbein, Papier, Pergament, Siegellack, Tinte, Gips, Entsalzung von Meerwasser, etc. Die Holzschnitte zeigen Gefäße, Instrumente und Maschinen, u. a. Drehbank, Destillieröfen, Mikroskope, Spiegelkünste, geometrische Zeichengeräte, Gläser-schleifmaschine, Brennspiegel, Dezimalwaage, Beispiele aus der Heraldik sowie einige Monogramme berühmter Künstler.- *Ferchl 289* (nur Tl. 1); *Darmstaedter, Bergb. 103*; *Bircher B 15120-21*; *Engelmann, Bibl. mechan.-techn. 208*; nicht bei *Holzmann-Bohatta*, *Ferguson* und *Duveen*.

44

**Luc, Jean André de.**

Physikalische und moralische Briefe über die Geschichte der Erde und des Menschen an Ihre Majestät die Königin von Großbritannien von Johann Andreas de Lüc, ... Aus dem Französischen mit einiger Abkürzung übersetzt [v. Johann Samuel Traugott Gehler]. [= Lettres Physiques Et Morales Sur L'Histoire De La Terre Et De L'Homme, Adressées a La Reine De La Grande Bretagne, dt.] 2 Bände [= cptl.] Leipzig, bey Weidmanns Erben und Reich, 1781 - 1782. 8° [mm] [8] Bl., 582 pp.; [6] Bl., 612 pp. Halblederbde. d. Zt. [with:] Jean-André De Luc. Physisch-moralische Briefe über die Berge, und die Geschichte der Erde und des Menschen ... [Übersetzt v. Heinrich Matthias Marcard].- Leipzig: Weidmanns Erben u. Reich, 1778. 8°. XXVIII, 258 pp.

\$ 1600.-

First german editions, both works are rare or quite uncommon. Georges Cuvier ranked him among the first geologists of his age, whereas Zittel affirms that although Deluc was held in high respect and favour during his lifetime, his papers have no permanent place in literature. There are also long comments on Deluc in Lyells' Principles of Geology. Deluc opposed Hutton's ideas on present erosion, asserting, for example, that soil is not eroded because if it were there would be none left. Deluc believed that the six days of the Creation were six epochs that preceded the present state of the globe, which began when cavities in the interior of the earth collapsed and lowered the sea level, thereby exposing the continents. There was thus a distinction between an older creative, or antediluvian period and a newer, or diluvian period. Of the former there survived only a few primordial islands, which accounted for the fossils of large animals and the continuity and antiquity of organic life. In the latter period, which started about 2200 B.C., new geological processes were operative but were so ineffectual or incidental that the landscape remained unchanged. [Beckinsale]. De Luc (1727-1817) was political active and doing commerce, being proudly a citizen of Geneva, later becoming „reader“ or intellectual mentor to Queen Charlotte at Windsor. He was appointed Fellow of the Royal Society and Honorary Prof. of philosophy and geology at Göttingen Univ.- DSB IV,27-29; Gillispie. Genesis and Geology, 1951; DNB XIV, 328-329; Rudwick. Bursting the limits of time. 150 - 158. KVK: some copies in German Libraries; no copy in COPAC; OCLC: Syracuse; Berkeley, Oklahoma.

45

**Meyer, Hermann [von]; Theodor Plieninger.**

Beiträge zur Paläontologie Württemberg's, enthaltend die fossilen Wirbelthierreste aus den Triasgebilden mit besonderer Rücksicht auf die Labyrinthodonten des Keupers.- Stuttgart: E. Schweizerbart, 1844. Folio. [4], 132 pp., 12 (1 fold.) lithograph. plates. Pappbd. d. Zeit, Einband berieben bestoßen, Tafeln gleichmäßig gering gebräunt, teilweise leicht stockfleckig. Titel verso gestempelt, recht ordentl.

\$ 2000.-

First edition of one of his finest studies; a monograph on triassic animals, like mastodons, amphibians like the labyrinthodonts, termatosaurus and others, found in Southwest Germany. Christian Erich Hermann von Meyer (1801 - 1869) was a German palaeontologist. He published a series of memoirs on various fossil organic re-mains: molluscs, crustaceans, fishes and higher vertebrata, including the Triassic predator Teratosaurus, the earliest bird Archaeopteryx lithographica (1861), the pterosaur Rhamphorhynchus, and the prosauropod dino-saur Plateosaurus. His more elaborate researches were those on the Carboniferous amphibia, the Permian reptiles, the Triassic amphibia and reptiles, and the reptiles of the Lithographic slates. He was awarded the Wollaston medal by the Geological Society of London in 1858. Wilhelm Heinrich Theodor Plieninger (1795-1879) war von 1832-48 wissenschaftlicher Secretär der landwirthschaftlichen Centralstelle, seit 1858 ordentliches Mitglied des statistisch-topographischen Bureaus mit dem Titel Oberstudienrath, von 1862-73 zugleich Geheimer Secretär der Königin Pauline von Württemberg.- Nissen ZBI I, 2804 / II, 385; DSB IX, 346; Pogg. II, 138; ADB XXI, 562; Engelmann, Bibl. Hist.nat 599.

46

**[Ulrichs, Anton]**

Eisenhüttenkunde. [German Manuscript on paper / Deutsche Handschrift auf Papier. Von einer Hand mit brauner Tinte in Kursive geschrieben.] [o. O., nach 1802]. Quarto [200 x 160 mm] 200 Leaves / Bll., [4, blank] Halblederbd. d. Zt., berieben u. bestoßen, etwas fleckig. Ca. letzte 80 Bll. aus bläulichem Papier, vereinzelt gering fleckig.

\$ 1600.-

Frühe anonyme Handschrift zur „Eisenhüttenkunde“, in 3 Teile gegliedert, wobei der dritte Teil die ökonomischen, merkantilen und juristischen Aspekte aufgreift. Ein kurzer geographischer Abschnitt gibt Auskunft über die Situation der Eisenhüttenkunde in Frankreich, England, Portugal, Rußland, Schweden u. Norwegen, Spanien, Türkei u.a. Die frühesten gedruckten Werke mit Titel „Eisenhüttenkunde“ erschienen 1801 nach dem französischen von Hasenfratz. Es dürfte sich um eine Vorlesungsschrift oder um eine Buchvorlage handeln. Rare german manuscript [maybe of lectures heard or for publication or lecturing] on ferrous metallurgy in three parts. The literature cited in the text indicate that it was written after 1802 and before 1830, where important books appeared not mentioned. Until the early 18th century the working of iron has been restricted by a practical consideration. The smelting of iron requires large quantities of charcoal, with the result that ironworks are usually sited inaccessibly in the middle of forests. And charcoal is expensive. In 1709 Abraham Darby, an ironmaster with a furnace at Coalbrookdale on the river Severn, discovers that coke can be used instead of charcoal for the smelting of pig iron (used for cast-iron products). This Severn region becomes Britain's centre of iron production in the early stages of the Industrial Revolution. The knowledge spread from there to the continent in the following years.

## IV. Astronomy

47

**Bianchini, Francesco.**

Franc. Bianchini Veronensis Astronomicae, ac geographicae observationes selectae ... Ex iisdem observationibus collecta ... studio Eustachii Manfredi ... Verona: Rammazini, 1737. Folio [304 x 210 mm]. XIII, XII, 278 pp., [2] mit gestoch. Porträt, gestoch. Titelvignette, Druckermarken am Ende, gestoch. Initialen, gefalt. Kupferstichkarte und 46 meist kleinen Textkupfern [Sternkonstellationen, etc.]. Pappbd. des 19. Jahrhunderts, restauriert, Bezug am Vordergelenk aufgeplatzt, Vorderdeckel angebrochen, etwas berieben u. bestoßen, Vortitel mit Eckabrieb, Vorsatz u. Titel mit Besitzvermerk u. gestempelt. Gering gebräunt u. fleckig, tfs. etwas wasserrandig, breitrandiges Exemplar.

\$ 3000.-

Rare first edition. Francesco Bianchini (1662-1729) was an observational astronomer, a discoverer of three comets, who published his account of observations of Venus. He studied in Bologna with the pro-Galilean Giuseppe Feroni, and was appointed to the Congregation for the Reform of the Calendar in the Vatican in 1701 in acknowledgement of his research into chronology. He was one of eight foreign members of the French Acad. and, after visiting England in 1713, was proposed by Newton for membership of the Royal Society. On his return to Italy he was inspired to measure the Meridian in Italy from coast to coast, as shown on the map at the end of the posthumous work. He is known for his other work: *Hesperii et phosphori* of 1728 showing telescopes and the observations of the Venus. *Biogr. Dict. Astr.* I, 121 [Richard Baum] // Bianchini wurde 1662 als Sohn einer angesehenen Kaufmannsfamilie in Verona geboren. Nach umfassenden Studien (Mathematik, Astronomie, Geschichte, Philosophie, Theologie und Künste) in Bologna und Padua gelangte er in die wissenschaftlichen Zirkel Roms und zu einträglichen Positionen an der römischen Kurie. Sein wichtigster und namhaftester Förderer war Papst Clemens XI. (1700-1721). Bianchinis universalwissenschaftliche Leistungen fanden bereits zu seinen Lebzeiten internationale Beachtung. In seiner Funktion als Sekretär der Kalenderreform konstruierte er den Meridian in S. Maria degli Angeli. Als Präsident der *Antichità di Roma* leitete er die ersten systematischen Ausgrabungen auf dem Palatin und war mit den Planungen eines „Museo Ecclesiastico“ im Vatikan betraut. Zahlreiche Korrespondenzen und mehrmonatige Reisen ins Ausland brachten den Gelehrten in Kontakt mit den führenden Wissenschaftlern seiner Zeit, so auch mit Leibniz und Newton. Die königlichen Akademien in London und Paris ernannten ihn zu einem der wenigen ausländischen Ehrenmitglieder. - *Pogg.* I, 186; *Lalande* 44; *Honeyman* 325; *DSB* IX, 78 [Manfredi]; *Riccardi* I.1, 132: „raro e pregiato“; not in *Barchas*.

48

**[Cleomedes, Kleomedes]**

Kleomedous kyklike theoria eis biblia 2 : nunc primum typis excussa prodit. [= Elementary theory of the heavens; greek] Parisiis [Paris]: Per Conradum Neobarium, regium in Graecis typographum, 1539. [Colophon: Parisiis, vaeneunt partim Ioanni Lodoico, partim in cruce alba vici Diui Jacobi, 1539 Maij 30]. 4° [190 x 145 mm] [88] pp. Later blue Papercard boards, with label at covers. New endpapers.

\$ 5000.-

Editio princeps. The only work by a professional Stoic teacher to survive intact from the first two centuries A.D. This treatise, *Caelestia* [The Heavens], includes polemical attacks against Peripatetics and epicureans that are characteristic of debates between stoics and other philosophers during the first two centuries and that cease by the early third century. The astronomy it presents is elementary and limited to the following topics: the celestial sphere, the division of the world into zones, seasonal and climatic differences, the sphericity and centrality of the earth, the absence of parallax in observations of the sun and beyond, the sizes of the heavenly bodies, the illumination and phases of the moon, and lunar eclipses. The *Caelestia* is important mainly for offering two geometrical arguments estimating the size of the Earth, one attributed to Eratosthenes, the other to Posidonius. [Alan C. Bowen].- BEA I, 240; DSB III, 318-20.- COPAC: Cambridge, Oxford, Edinburgh, BL London, UCL, Manchester; OCLC: Burndy, Columbia, NYPublic, Kenneth Spencer [listed are more, but not present if looking at the library catalogue]. Ref.: Index aureliensis, 141.630; Brunet, II, col. 100; Graesse, II, p. 200; BM STC French, 1470-1600, p. 117; Adams, C-2175; Houzeau & Lancaster. *Astronomie* (1964 ed.), 883.

**Early Female Scientist**

49

**Cunitz [Cunitia], Maria.**

Urania propitia sive tabulae astronomicae mirè faciles, vim hypothesium physicarum é Keplero proditarum complexae ... Das ist: Neue und langgewünschete, leichte astronomische Tabellen durch derer vermittelung auff eine sonders behende arth communicat Maria Cunita. 2 parts in one volume. Bicini Silesiorum [Pitschen]; pr. Olsnae Silesiorum [Olse]: Johann Seyffert für die Verfasserin, 1650. Folio [305 x 190 mm] [24], 144 pp., [2]; 286 pp.; 147-264 pp., [2] with half-title, title printed in red and black, without 4 folding printed tables [only in facsimile]. Pergamentbd. d. Zt., Bezugseinrisse, stärker fleckig und angeschmutzt, berieben und bestoßen, Titel in Rot und Schwarz gedruckt. 6 Tabellen mit großen restaurierten Ausbrüchen im unteren Rand, jedoch ganz wenig Textverlust. Gebräunt u. fleckig. Titel m. Besitzvermerk, Exlibris.

\$ 2800.-

Seltene erste Ausgabe. Die Verfasserin des auf Kepler's Rudolphinischen Tafeln beruhenden Werks „machte astronomische Beobachtungen und trieb nicht allein Mathematik, sondern auch alte Sprachen, Geschichte, Medicin, Poesie, Malerei und Musik“ (Pogg.). First edition, the only publication of an early female scientist. A remarkable and very rare work. The publication of the book *Urania propitia* (1650) gained Cunitz a European reputation. She was acclaimed as the most learned woman since Hypatia of Alexandria. Significantly for a technical publication of that period, her book was written both in Latin and German. *Urania propitia* was a simplification of the Rudolphine Tables. It provided new tables, new ephemerata, and a more elegant solution to Kepler's Problem, which is to determine the position of a planet in its orbit as a function of time. Today, her book is also credited for its contribution to the development of the German scientific language. [wikipedia] Maria Cunitz [Kunicia, Kunicka, et al.] (ca.1610-1664) was one of the first modern 'femmes de science' and the most noted woman astronomer since Hypatia. Denied any form of university education, Cunitz first received instruction from her father, and in 1630 married Dr. Elias von Löwen, who died in 1661, a physician who shared her interests in astronomy. By one tradition she mastered seven languages and was widely known for her skills in painting, music, and poetry, not to mention the 'masculine' pursuits of mathematics, medicine, and history. Her principal interest was astronomy. As an astronomer, Cunitz is best remembered for her *Urania propitia* (1650). Dedicated to Emperor Ferdinand III. the *Urania* contains an important preface by her husband that disclaims his authorship, clearly attributed it to Maria Cunitz. Following the introduction *Urania propitia* provides astronomical tables based on Kepler's Rudolphine Tables. Surprisingly, Cunitz's sole publication was not widely known, perhaps because few copies were printed and few copies exist today. Cunitz was praised for extending Kepler's efforts and simplifying his calculative methods for eclipses and especially planetary

latitudes. She corresponded with Pierre Gassendi, Ismael Boulliau, Johannes Hevelius, and other advocates of the new science. [Robert Alan Hatch] All her letters to and from those people were destroyed in a fire on 25 May 1656, in which her home, library and equipment, as well as some 200 astronomical observations were also lost.- BEA I, 263 [Hatch]; ADB IV, 641; Poggendorff I, 504; Darmstaedter 125; Caspar 91; Houzeau-L. 12767; Macclesfield Library 579 [10800 GB. Provenance: Johann Carl Roppa (Meusel VI, 427). KVK: COPAC: BL London, UCL [Graves copy], Royal Society; OCLC: Univ. Florida, NY Public, Adler Planetarium, Linda Hall, Indiana, Harry Ransom, TX, Oklahoma.

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**Euler, Leonhard.**

Briefe an eine deutsche Prinzessin über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt [von J. C. Loder; Bd. 2 von J. J. Engel]. 3 bis 3 Theil in 3 Bänden. Leipzig. bey Johann Friedrich Junius, 1769 [un]d St.-Petersburg, Riga und Leipzig, 1773. 8°. [8] Bll., 268 pp.; [4] Bll., 300 pp.; [8] Bll., 358 pp. mit 15 Holzschnit tafeln u. zahlreichen Textholzschn. Halblederbde. d. Zt. auf fünf Bündeln m. R.schild u. R.vergold., Bd. 3 stilge-recht nachträglich gebunden. Die ersten beiden Bände etwas gebräunt, Band 3 stockfleckig, Besitz-vermerk in Band 1 [Jeannette v. Schmerfeld], in Band 2 dieser Besitzvermerk entfernt.

\$ 2600.-

First german edition, uncommon in complete first edition. Sehr seltene erste deutsche Ausgabe von Euler's philosophischem Hauptwerk, das zuerst 1768 - 1772 in St. Petersburg auf französisch erschienen war. Diese erste deutsche Ausgabe ist ähnlich selten wie die französische Originalausgabe, und war laut Eneström bereits 1768 ausgeliefert. Der dritte Band erschien erst zur Titelaufgabe bei Hartknoch 1773. Das Werk gehört zu den am weitesten verbreiteten und einflussreichsten popular-philosophischen und - physikalischen Schriften des 18. und 19. Jahrhunderts. Euler verfaßte die 234 Briefe von 1760 bis 1762 zunächst für den Privatunterricht der Markgräfin Friederike Charlotte von Brandenburg- Schwedt, plante aber bereits bald ihre Veröffentlichung. „Der Band 1 enthält u.a. Briefe zur Musiktheorie, zur Physik und zur Naturphilosophie. Band 2 behandelt zu-nächst das Leib-Seele-Problem, weitere Briefe gelten Fragen der Ethik und Theologie, der Logik und Sprach-theorie sowie der Erkenntnistheorie. Nach Kritik der leibnizschen Monadenlehre geht Euler wiederum auf die Physik ein. Der dritte Band ist ausschließlich naturwissenschaftlichen Problemen gewidmet. ... Die Bedeutung von Eulers naturphilosophischem Programm liegt darin, dass er gegenüber der „inflationären“ Vervielfachung von Kräften und Imponderabilien der Physik des späten 18.Jhdts an einer auf die Mechanik gegründeten Theorie der Naturprozesse (und damit am Gedanken einer Einheit der Naturwissenschaften) festhält und der Physik des 19. Jhdts. vor Augen führt.“ [Pulte; in: Volpi I,456] NDB IV, 689: „Für die Philosophie beginnt mit diesen Briefen eine neue Epoche. Euler versuchte, den Idealismus im Sinne Berkeleys zu widerlegen, und zu Beginn des Jahres 1761 gelang ihm die Copernicanische Wende, wie Kant sie nannte: Man kann nicht von der Trennung in Außen- und innenwelt ausgehen, denn alsdann kann man sie nicht mehr verbinden; sondern man muss beim unzertrennten Subjekt-Objekt anfangen, jede Wahrnehmung trägt den Charakter eines Bildes von einem Gegenstand an sich.“; Eneström 343B, 344B und 417B; Fromm 27847.

## Gauss' Assistent

51

**[Goldschmidt, Carl Wolfgang Benjamin].**

Grundlagen der Astronomie des Herrn Dr. Goldschmidt. [Handwritten lecture notes by E. Klinkhardt on lectures on the principles of astronomy held by Goldschmidt in 1837 at Göttingen Observatory; Deutsche Handschrift auf Papier. Flüssige Kursive in brauner Tinte. Sommer-Semester 1837]. [Göttingen, 1837] 4°. [270 x 195 mm]. 137 handschrftl. num. Seiten, 1 weißes Blatt. Mit 1 doppelblattgroßem Diagramm u. wenigen Federzeichnungen am Rand. Schwarzer Pappbd. d. Zt., beschabt u. bestoßen, Rücken mit Fehlstellen. Teilweise gering gebräunt oder fleckig. Beigebunden 2 fragmentarische Handschriften von der gleichen Hand (zusammen ca. 60 Bll.).

\$ 1900.-

Handwritten lecture notes by E. Klinkhardt on lectures held by the assistant and pupil of Carl Friedrich Gauß, Carl Wolfgang Benjamin Goldschmidt (1807-1851) at Göttingen University resp. Observatory. Goldschmidt was a converted Jew, probably to make a career at German University (which was otherwise not possible) and held in high esteem by Gauß. Gauß was responsible that Goldschmidt took over the position of Harding at the Observatory. With Gauß und Weber he worked on magnetical observations and published with them the Atlas des Erdmagnetismus. He died early of a heart attack. The lectures notes include many mathematics and he used probably methods derived by Gauss and lectured to his pupils. Sorgfältige Vorlesungsnachschrift eines Studenten der Mathematik eines Astronomie-Kurses des Gauss Schülers und Assistenten C. W. B. Goldschmidt an der Universität Göttingen. Möglicherweise handelt es sich beim Schreiber um den aus Hildesheim stammenden und bereits 1847 verstorbenen Professor für Mathematik an der Kantonschule in Chur (Pogg. I, 1274). Carl Wolfgang Benjamin Goldschmidt (1807 Braunschweig - 1851) war Schüler von Gauß. 1831 erhielt er die philosophische Doctorwürde und ging für zwei Jahre als Lehrer der Mathematik nach Hofwyl. 1833 wurde ihm die *venia docendi* verliehen und nach dem Tod von Harding wurde er als Observator bei der Sternwarte angestellt. Er arbeitete mit Gauß und Weber am magnetischen Observatorium, galt als Assistent von Gauß und wurde 1845 zum außerordentlichen Professor ernannt. Er verstarb früh im Alter von 44 Jahren an Herzversagen. „den Abend vorher war er noch ein paar Stunden sehr vergnügt bei mir gewesen, und nachher hat er noch einer Gesellschaft den Mond durch ein Fernrohr gezeigt.“ [Gauß]

## On Sundials – Unpublished Lecture Notes

52

**[Gottigniez, Giles Francois de].**

Tractatus de Horologiis sciaticis. Seventeenth-century manuscript in Latin. [Caprarola, 1663 or 1683] kl.8° [130 x 95 mm]. 326 pp. with 2 folding tables, diagrams within the text. Contemp. vellum, soiled, slightly warped, longitudinally ms. titled in black: Tractatus de orolog., old sign. on spine: MS 17cent., on frontfly old ownership stamp: Gloucester-shire Country Library. Slight damp-staining in inner margin at end.

\$ 3900.-

Unpublished handwritten manuscript lecture notes by unknown hand of lectures on sundials held most probably by Giles Francois de Gottigniez [here: Egidio de Cotignies] in Caprarola in 1663 [or 1683] [see pp. 261]. Gilles-Francois [Egidio Francescus; Aegidius F.] de Gottigniez [Gottigniez; Cottignies] (Bruxelles 1630 - Rom 1689), a Belgian mathematician, who went to Rome to complete his studies and from 1662 to 1689 taught mathematics at the Collegium Romanum. He was a student of Gregorius de Saint-Vincent and André Tacquet and with Arnauld he raised doubts about negative numbers. In the *Arithmétique théorique et pratique* (1656) Tacquet attempted to provide better foundations for arithmetic by means of algebra. Gottigniez' work is rooted in Tacquet's, in particular, it belongs to the tradition of thought that postulates a universal science of mathematics, a *mathesis universalis*, prior to arithmetic and geometry. Gottigniez named this science 'logistica universalis' and refused to identify it with algebra in that he rejected the use of quantities less than nothing. In the third book he attacked Prestet's conception of negative quantities. „Très activement engagé dans la communauté scientifique de Rome il s'intéresse d'abord à l'astronomie

qui fait précisément à cette époque post-galiléenne des progrès considérables grâce aux nouveaux instruments d'observation. Dans une célèbre lettre de 1665 de Gottignies met en doute certaines observations de Jean-Dominique Cassini, astronome de Louis XIV, faites à la suite de l'éclipse de la planète Jupiter. Outre l'astronomie de Gottignies publie des travaux sur les sciences naturelles et surtout la logique scientifique qui semble être son domaine de prédilection. Il dessine également un grand nombre d'instruments de mesures scientifiques." The Villa Farnese, also known as Palazzo Farnese or Villa Caprarola, is a mansion in the town of Caprarola in the province of Viterbo appr. 50 kilometres north-west of Rome. The Villa Farnese is situated directly above the town of Caprarola and dominates its surroundings. Lit.: L. de Wreede, Gilles- François de Gottignies (1630-1689), jezuïet en geleerde, thèse inédite, Leyde, 1999. Mario Catamo; Fio-rella Proietti. L'evoluzione della misura oraria e le Meridiane die Civita Castellana

53

**[Manuscript]**

De globo ca[e]lesti. [Latin Manuscript by unknown hand in legible hand, black ink on period paper] [Amsterdam, ca 1650]. kl.4° [192 x 130 mm]. 125 leaves [= 1-5 blank, 6-86 text, 87-93 blank, 94-106 text, 106-125 blank] With schematic diagrams on leave 29, 84, and 86; leaves 81, 82, 84 and 85 with tables within the text. Paperstock of mid 17th century, with anchor watermark, similar to Piccard 119048. Contemporary vellum over boards, handwritten title, preserved in first state.

\$ 2900.-

Popular manual on the use of the globe for different purposes by unknown hand in the tradition of Robert Hues. The work consists of two parts. The first part refers the elements and use of terrestrial and celestial globes, the second part is on form and function of sun dials. The book refers to often to Amsterdam as the basic of his calculations, so that the author might be found in the circle of the dutch editors of Robert Hues' work on the globe (Peter Bertius, Johann Isaac Pontanus, Henricus Hondius). Robert Hues (1553 - 1632) was an English mathematician and geographer. In 1594, Hues published his discoveries in the Latin work *Tractatus de globis et eorum usu* (Treatise on Globes and their Use) which was written to explain the use of the terrestrial and celestial globes that had been made and published by Emery Molyneux in late 1592 or early 1593, and to encourage English sailors to use practical astronomical navigation. Hues' work subsequently went into at least 12 other printings in Dutch, English, French and Latin. The book was written to explain the use of the terrestrial and celestial globes that had been made and published by Emery Molyneux in late 1592 or early 1593. Apparently, the book was also intended to encourage English sailors to use practical astronomical navigation, although Lesley Cormack has observed that the fact it was written in Latin suggests that it was aimed at scholarly readers on the Continent. In 1595, William Sanderson, a London merchant who had largely financed the globes' construction, presented a small globe together with Hues' „Latin booke that teacheth the use of my great globes“ to Robert Cecil, a statesman who was spymaster and minister to Elizabeth I and James I. Hues' work subsequently went into at least 12 other printings in Dutch (1597, 1613 and 1622), English (1638 and 1659), French (1618) and Latin (1611, 1613, 1617, 1627, 1659 and 1663).- Provenance: Library of the British Astronomical Association [stamp]; Howel Wills, Balliol College (inscribed on front pastedown) (1854-1901). His library was sold at Sotheby's, 11 July 1894. A number of the MSS from the first sale were bought by Bernard Quaritch Ltd., and offered in their Rough list no. 144, A rough list of choice and valuable books...[f]rom the library of Howel Wills, Esq., of Florence (August 1894). Three other sales of Wills's property (paintings, prints, drawings, medieval and renaissance works of art, etc.), were held by Christie's in February of the same year. Further books were sold at Sotheby's, 1 December 1896. [The stated date in Edmonds' MS Notes (Vol. VI, pp. 52) of 1571 might be wrong. One of the diagrams has the date 1571, but is from an older source to be used by the author of this].

54

**Melander [Melanderhjelm], Daniel.**

Conspectus Praelectionum Academicarum Continens Fundamenta Astronomiae: Cum Figuris aere incis. Auctore Daniele Melanderhjelm, Astron. Prof. 2 Bde. in 1. Holmiae; Upsalae; Aboae: Sweder; Upsaliae: Edman, 1779. 8°. [4] Bl., 320 pp.; [1] Bl. [Titel], pp. [321] - 664, [1] Bl., [7] gefalt. Kupferstiche. Halblederbd. d. Zt., aufwendige R.vergold., doppeltes R.schild, berieben u. bestoßen, Vorsatz mit Ex-Libris, erste Seiten etwas wasserrandig. Tafeln an Randseiten geklebt. Recht ordentl.

\$ 800.-

First edition. Daniel Melanderhjelm's (1726-1810) astronomical work was mainly in celestial mechanics, especially the theory for the motions in the Solar system and the Lunar orbit: *De theoria lunae commentarii* (1769); *Om den synliga verldens störrer eller mindre varaktighet* (1772), where he shows that among the possible laws of attraction of bodies the present is the most preferable for the stability of the celestial bodies. Other areas were studies of the atmospheres of the planets, the theory and calculation of the Equation of Time and studies of the Venus transitions of 1761 and 1769. He published a textbook for the fundamental academical lectures in astronomy: *Conspectus praelectionum academicarum continens fundamenta astronomiae* (1779), used also in many foreign countries. It was later translated to Swedish and published as *Astronomie* (1795). Melanderhjelm also took the initiative to the 1802 expedition to Lapland to measure a degree of a meridian to compare with Maupertuis' values from 1736. He was the secretary of the Royal Academy of Sciences in Stockholm from 1797.- KVK: Dresden, Leipzig, Tübingen, Greifswald, Berlin, Jena, Kiel, et al.; COPAC: Edinburgh, UCL, British Library; OCLC: 3 copies - Columbia, Minnesota, US Naval.

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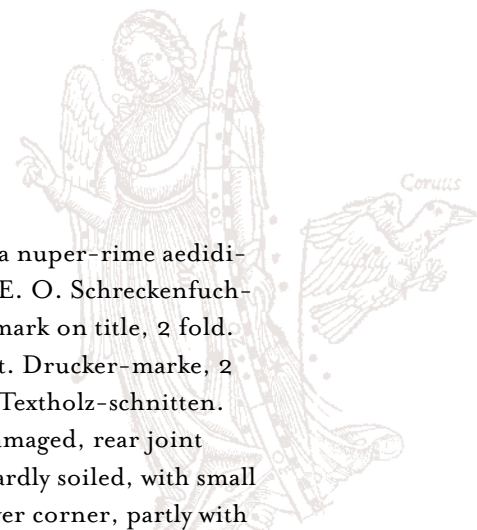
**Ptolemaeus.**

*Omnia quae extant Opera, praeter Geographiam, quam non dissimili forma nuper-rime aedidimus ... Almagesti seu Magnae Compositione ... de Iidiciis ...*, castigata ab E. O. Schreckenfuch-sio. Basel: Henricus Petrus, mars 1551. Folio. [88], 447 pp. with woodcut-mark on title, 2 fold. star maps, fold. tables, and geometrical woodcuts within text; mit wiederholt. Drucker-marke, 2 gefalt. Holzschnitt-Tafeln, gefalt. Tabelle und einigen meist schematischen Textholzschnitten. Contemporary blind-pressed pigskin with 2 metal clasps, turn-in slightly damaged, rear joint with split at bottom, a little soiled, rubbed and scuffed. Slightly browned, hardly soiled, with small waterstains. Title stamped. At the beginning and end some wor-ming to lower corner, partly with moulding. [bound with:] *Ptolemaeus. Geographiae libri VIII*. Basel: Heinrich Petri, 1552. Mit Holzschnitt- Porträt auf dem Titel verso und 7 (2 ganzseit.) meist schematischen Textholzschnitten, jedoch ohne die 54 Doppelblatt-Karten. 108 Bl. (Bl. 8, 90 und 108 weiß), 195 pp. Titel gestempelt [Donaueschingen].

\$ 8500.-

First collected edition of his astronomical tracts with commentaries, and bound with the 1552 edition of his *Geographiae* [without maps]. Erste Gesamtausgabe der astronomischen Schriften Ptolemaus, zusammen-gebunden mit dessen *Geographie*, diese jedoc ohne Karten. *Almagest* nennt man eines der Hauptwerke der antiken Astronomie, das auf den hellenistisch-griechischen Gelehrten Claudius Ptolemäus zurückgeht.- STC 718. Adams P 2208. VD 16 P 5205. Lalande 1551. Houzeau-L. I, 881: „La version de l'Almageste est celle de Georgius Trapezuntius. Quelques traités manquent à ces éditions. Les astronomes n'y trouveront pas le ‚Planisphaerium‘ ni le ‚De analemmate‘. En revanche on y a inséré les ‚Hypotyposes astronomiae‘ de Proclus.“ Vierte von Sebastian Münster edierte Ptolemäusausgabe der *Geographiae*, jedoch ohne die Karten.- STC 719. Adams P 2230. VD 16 P 5218. Burmeister 169.

Star-Maps: While in Basel in 1532, Honter produced two important celestial hemispheres that were later bound and distributed in a book published by Heinrich Petri of the first collected works of ptolemy. The hemispheres were labeled: *Imagines Constellationum Borealium* or *Australium*. They were centered on an ecliptic pole using a polar stereographic projection. Honter



## ANTIQUARIAT Michael Kühn

knew about Dürer's maps, and his hemispheres show the influence, but with three important changes. First, rather than an external orientation, Honter was the first major cartographer to use a geocentric orientation in printed form for the stars in his constellations. Second, instead of using arabic or classical clothing, honter employed contemporary Renaissance clothing (e.g. heavy beards, bulky clothes and tunics, fancy hats) for five of his male constellation figures. Finally, like Dürer, radial lines extended outward allowing for the measurement of a circle, the tropic of cancer, and the celestial equator to give an approximate location of a star's latitude in the heavens. As Warner points out, there was a problem with his maps, in that he used an older, more classical radial coordinate system that did not take into account precession, so it was some 30 degrees off in longitude for the time it was printed. Nevertheless, his hemispheres were very influential (Gefugius, Maggi, Postel) especially since - unlike Dürer's rare single sheet - Honter's were bound in books that went through editions and were widely copied. His geocentric orientation was taken up by Piccolomini. Warner speculates that the woodblocks may have passed on to Paris where the maps were reissued with a new label: *Arati Solensis Phaenomena*, Postel's *Signorum Coelestium*, Biene's 1626 edition of *Phaenomena et Prognostica*. [Kanas 5.4.2.] Johannes Honter was born in 1498 in Brasov [Kron-stadt], which is now Romania. He studied at the University of Vienna from 1520 to 1525, receiving a 'Magister Atrium' degree. With the threat of the Turks impending attack, he left Vienna in 1529 for Regensburg. He then registered at the Jagiellonian University in Krakow in 1530, where he wrote a Latin grammar and a manual on cosmography. From 1530 to 1532 he lived in Basel, where he became proficient in wood engraving and produced an influential map of his native Transylvania that was the first region and made famous in a later copy by Ortelius. He moved back to Brasov for good in 1533, where he became involved in introducing Lutheranism to the region. In 1539 he set up a printing press and began issuing a number of books, including many that he wrote: One of these was a new version in verse form of his cosmography manual entitled *Rudimenta Cosmographica*, published in 1542. It went through some 39 editions. Honter died in 1549.



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**Schröter, Johann Hieronymus.**

Beiträge zu den neuesten astronomischen Entdeckungen. Herausgegeben von Johann Elert Bode. [bzw.] Schröter, Johann Hieronymus. Neuere Beyträge zur Erweiterung der Sternkunde. [= Zweiter Band der Beyträge zu den neuesten astronomischen Entdeckungen] 2 Bde. - Berlin: bey August Gottlieb Lange, 1788 [und] Göttingen: in Commission der Van-den-hoek-Ruprechtischen Bhdl., 1798. 8°. XIV, 288 pp., [2], 8 tls. gefaltete Kupfertafeln; [2], XXII, 424 pp., [2], 3-77 pp., [5], 7 mehrfach gefalt. Kupfertafeln. Dekorative Halblederbde. d. Zt., dop-peltes R.schild, auf 5 Bänden, eingestanztes Monogramm „Z“ [= Zach] am Rücken, mamoriertes Deckpapier, Neuerer Besitzvermerk a. V., Besitzerstempel „Zach“ am Titel. Kaum fleckig. Sehr schönes Exemplar aus bedeutender Provinenz.

\$ 1800.-

First edition of his collected shorter works, with one of two supplements. Association copy being from the library of the astronomer Zach. J. H. Schröter (1745-1816), observational astronomer, telescope builder, and noted selenographer, provided the first extensive description of lunar rilles and solar granulation. He was also the first to establish the presence of an atmosphere around Venus. Erste Ausgabe von Aufsätzen des Astronomen J. H. Schröter (1745 - 1816), wie zumeist ohne den in zwei Abteilungen erschienenen 3. Band unter dem Titel: Neueste Beyträge zur Erweiterung der Sternkunde (1800).- Johann Hieronymus Schröter hatte in Lilienthal bei Bremen eine Privatsternwarte errichtet, deren Leistungsfähigkeit damals wohl nur von dem Observatorium William Herschels übertroffen wurde. Für etwa drei Jahrzehnte wurde Lilienthal ein internationales Zentrum der beobachtenden Astronomie. Schröters eigene Arbeiten betreffen fast ausschließlich die topographische Astronomie sowie die Beschreibung und Verbesserung der astronomischen Instrumente. „Er wollte die Oberflächengestalt und Oberflächenbeschaffenheit der Mitglieder unseres Sonnensystems studieren, deren Rotationselemente bestimmen usw. Die Fixsterne, denen gegenüber selbst seine gigantischen Fernrohre versagten, interessierten ihn weniger ... Am meisten Wert (von seinen zahlreichen Entdeckungen) dürften heutigen Tages noch die Beobachtungen über das Streifen- und Trabantensystem des Jupiter besitzen“ (ADB 32, 570 f). Band 1 enthält als Hauptbeitrag Schröters Beobachtungen über die „Rotation, Atmosphäre und Naturanlage“ des Jupiter, ferner kleinere Abhandlungen über das Herschelsche 7-füßige Teleskop, ein neues Lampenmikrometer, einen Entwurf zu einer Mond-Topographie (als Vorläufer zu seinem großen Selenographischen Atlas) u. a. Band 2 mit den o.g. Beobachtungen „über die Rotation, wahren Größenverhältnisse, Naturanlagen und Atmosphären“ der Jupiter-Trabanten. Exemplar aus der Bibliothek des Astronomen Zach, mit dessen Besitzstempel.- Hockey [ed.] BEA II, 1030-32 [Cunningham]; Poggendorff I, 846 f; Houzeau/Lanc. II, Sp. 1543 f; DSB XII, 226.

57

**Schubert, Friedrich Theodor.**

Theoretische Astronomie. [Vol I. Sphärische Astronomie; 2. Theoretische Astronomie; 3. Physische Astronomie]. 3 Bände. St. Petersburg: gedruckt bey der Kayserlichen Akademie d. Wiss., in Riga: bey Joh. Fr. Hartknoch, 1798. 4° [260 x 200 mm]. XIV, 184 pp.; VIII, 367 pp. [1]; [2], VI, [2], 338 pp. with together 8 fold. plates. Contemporary Halfleather, rubbed and soiled, slightly browned, covers of the first volume with minor worming, Ex Libris: Bibliothek des Großherzoglichen Friedrich-Franz-Gymnasium [Parchim] & stamp. Inside clean & fresh copy. First page of first vol. repaired, minor worming in bright white margin of 3. vol.

\$ 1600.-

Rare first German edition, most probably the first edition. ADB cites a French edition of 1791 which might be a ghost. Worldcat have only a 1822 ed. of St. Petersburg 1822 in French. Friedrich Theodor von Schubert was the astronomer of the Petersburg Academy of Sciences around 1800. Friedrich Theodor [von] Schubert (1758 Helmstädt - St. Petersburg 1825), als Sohn eines Theologieprofessors geboren, studierte ebenfalls Theologie, brach dieses jedoch ab, und verließ die Familie, um auswärts sein Glück zu machen. 1780 übernahm er die Stelle eines Hauslehrers bei Major von Cronhelm in Bartelshagen / Stralsund, um dessen Söhne zu unterrichten. Der Major war ein Astronomie Liebhaber, der viel Geld in vortreffliche astronomische Instrumente steckte. 1783 zog er nach Reval, lebte anfangs als Hauslehrer, dann als Kreisrevisor und unterrichtete estländische Edelleute in Mathematik, um sie für den Eintritt in den russischen Kriegsdienst vorzubereiten. 1785 erhielt er einen Ruf an die Petersburger

Akademie der Wissenschaften, zunächst um den berühmten Got-torp' schen Globus auszubessern, dann stieg er schnell in der Hierarchie auf und wurde 1789 wirkliches Mitglied der Akademie für Mathematik. 1803 übernahm er die Leitung der akademischen Sternwarte und begann die Einrichtung instrumentell zu verbessern. Auf Befehl des Kaisers hielt er Vorlesungen über praktische Astronomie für die Officiere des Generalstabs. 1805 nahm er als Leiter der wissenschaftlichen Sektion Teil an der großen Expedition oder Gesandtschaft, die nach China geschickt wurde, an der auch Klaproth, Graf Potocki und Adams, der dabei das berühmte Mammutskelett ausgrub, teilnahmen. Seinen wissenschaftlichen Ruhm begründete er durch eine französisch geschriebene *Traité d' Astronomie théorique* (1791; Ghost ?), eine Geschichte der Astronomie und eine Populäre Astronomie.- KVK: Stabi Berlin; Dresden, Freiberg, Freiburg, Leipzig, Tübingen, et al.; COPAC: only BL London; OCLC: Brigham Young; Yale; Chicago; Burndby; Columbia; Harvard; Library Congress, et al. Lit.: Wolf I, 38; ADB XXXII, 628; DBE IX, 162; Pogg. II, 850/852; Houzeau-L. I, 11811; Roller-G. II, 414; not in Barchas Collection.

## V. Physics & Mathematics

58

### Archimedes.

*Opera non nulla*. Edited by Federico Commandino, with commentary. 2 parts in 1. Venice: Paolo Manuzio, 1558. Folio [311 x 211 mm]. Contemporary limp vellum, Roman type. Woodcut dolphin and anchor device (Cataldi Palau, Delfino 16) on titles and verso of last leaves, woodcut diagrams and initials in text. Ownership inscription erased with old repair to blank portions of title page affecting small spot of printer's device, marginal repair to L4 and M3, \*3-A2 reinforced along gutter margins.

\$ 6000.-

Second Latin edition, varying considerably from earlier editions such as the Basel edition of 1544 by Hervagius. Federico Commandino was a skilled mathematician in his own right; he had access to a Greek manuscript in Venice not previously available. A very important translation with commentary and corrections by Commandino, the notable leader of the great sixteenth-century revival of Western mathematics. Archimedes of Syracuse (ca. 287-212 BC) was the finest scientist and mathematician of the ancient world. He created mechanics and was a pioneer in the fields of statics and hydrostatics. According to Gauss, Archimedes had only Newton as a mathematical equal. Federico Commandino (1509-1575) studied Greek, philosophy, and medicine at Padua, but he was far more interested in mathematics and devoted his life to the translation and interpretation of the Greek mathematical classics. He was responsible for the publication of the works of Archimedes. He also translated the works of Aristarchus of Samos (*On the masses and distances of the Sun and the Moon*), Pappus of Alexandria (*Mathematical collection*), Hero of Alexandria (*Pneumatics*), and Euclid (*Elements*). Among his pupils was Guidobaldo del Monte. Commandino maintained a correspondence with the astronomer Francesco Maurolico. The proposition known as Commandino's theorem first appears in his work on centers of gravity.- Adams A-1532 and C-2468; Ahmanson-Murphy 448; Renouard 173.3. Lit.: P. Neville. The printer's copy of Commandino's translation of Archimedes 1558, in: *Nuncius Ann. Storia Sci.* 1 (2) (1986), pp. 7-12.

59

### [Archimedes] Stiernhielm, Georg.

*Archimedes reformatus. Serenissimae reginae Sueciae consecratus. Holmiae [Stockholm] (typis Petri à Selov), [1644]. 4°. 35 Bll./ Leaves [sign. A4-H4]z(3) with one fold. table, the fold. plate in early handwritten form. Contemporary calf, rubbed & worn, else quite good copy. Some brownning.*

\$ 2600,-

Very rare work by a Swedish scientist on hydrostatics and specific gravity. Georg Stiernhielm (1598 - 1672) was a Swedish civil servant, linguist and poet. He received European recognition as a scholar, and not least as an expert in language history, although certainly no human endeavour was foreign to him. Probably he regarded himself foremost as a scientist and mathematician. He seems to have been the first to use the decimal system in Sweden, and he reformed the system for weights and

measures. He grew up in the Bergslagen region where his father worked with the mining industry. Stiernhielm received his first schooling at Västerås, but he was also educated in Germany and the Netherlands. He was a pioneer of linguistics [establishment of a historical relationship between Finnish and Hungarian], and even if many of his conclusions later proved wrong they were accepted by his contemporaries. Stiernhielm tried to prove that Gothic, which he equated with Old Norse was the origin of all languages, and that the Nordic countries were *Vagina gentium*, the human birth place. He was elected a Fellow of the Royal Society in December 1669.- Collijn, Sveriges bibliografi, 1600-talet, II. 884-5: Variant with „tantum est“. Provenienz: Gustaf Bernström. KVK: only Greifswald, Hamburg; COPAC: only UCL [Graves copy]; OCLC: Harvard [Houghton]; Texas [Harry Ransom].

59a

**Bachelier, Louis.**

Calcul des Probabilités. Tome I. [all publ.] Paris: Gauthier- Villars, 1912. 4° [270 x 220 mm]. VIII, 516 pp., [2] Contemporary Halfcloth, with mounted wrappers, little unfresh. Little rubbed and soiled, inside clean & fresh. Title stamped with monogram.

\$ 900.-

First edition of his treatise on the calculus of probabilities, which is as clear as it is remarkable, because he introduced an interesting theory of „inverse probability“ and of „probability of causes“, that is of statistical estimation. Louis Jean-Baptiste Alphonse Bachelier (1870 - 1946) was a French mathematician at the turn of the 20th century, who is credited with being the first person to model the stochastic process now called Brownian motion, which was part of his *The Theory of Speculation* (1900). His thesis, which discussed the use of Brownian motion to evaluate stock options, is historically the first paper to use advanced mathematics in the study of finance. Thus, Bachelier is considered a pioneer in the study of financial mathematics and stochastic processes. „His later book ... is devoted to continuous probability. It is, unlike Bachelier (thesis, 1900), an accessible source, namely, one of the few books on probability of the time. The book also displays the connections to the theory of Brownian motion. ... In Kolmogoroff's review (1935) of the state of research in probability theory, he went as far as saying that Bachelier's work is incomprehensible. However that may be, Bachelier's book with its main theme, the study of probability laws depending on continuous time, was there for anyone to look at. It made the connection between the theory of Brownian motion and diffusion, and it contained the basic property of Markov processes as well as definitions of special kinds of processes such as the stationary ones.“ [Jn von Plato].- Heyde/Seneta [ed.], *Statisticians*, pp. 283-285; Jan von Plato. *Creating modern probability: its mathematics, physics and philosophy in ...* pp. 134/35. Geoffrey Poitras. *Pioneers of Financial Economics: Contributions prior to Irving Fisher*. (2006), pp. 255-274.

## Schröder - Bernstein Theorem

60

**Bernstein, Felix.**

Untersuchungen aus der Mengenlehre. Inaugural- Dissertation zur Erlangung der Doktorwürde der ... Universität Göttingen vorgelegt von .... Halle a. S.: Buchdruckerei des Waisenhauses, 1901. 8°. 54 pp., [2, last blank] Back-Strip, fine.

\$ 800,00

First edition of his thesis, which was also published in the *Annalen*. In 1896 Cantor took a holiday and Felix Bernstein offered to correct the proofs of Cantor's famous work: *Beiträge zur Begründung der transfiniten Mengenlehre*. It was at this time that he came up with the Schröder-Bernstein Theorem. Bernstein had, at that stage, no intention of becoming a mathematician and he went to Pisa where he studied philosophy, archaeology and art history. Two mathematicians who had heard Cantor heap praise on Bernstein for the Schröder-Bernstein Theorem, persuaded the student of fine arts at Pisa to become a mathematician. After his studies at Pisa, he then undertook research under Hilbert and Klein at Göttingen where he wrote the dissertation *Untersuchungen aus der Mengenlehre* on set theory. For this dissertation he was awarded a doctorate by the Georg-August-Universität Göttingen in 1901. Felix Bernstein (1878 - 1956) was a German mathematician known for developing a theorem of the equivalence of sets in 1897, and less well known for demonstrating the correct blood group inheritance pattern of multiple alleles at one locus in 1924 through statistical analysis. He studied under Georg Cantor. In 1934, he emigrated to the USA. After the war, Bernstein returned to Europe and died of cancer in Zurich on December 3, 1956.- DSB II, 58-59.

## Bieberbach Spaces

61

**Bieberbach, Ludwig.**

Ueber die Bewegungsgruppen der euklidischen Räume. (Erste Abhandlung) [und] Ueber die Bewegungsgruppen der euklidischen Räume. (Zweite Abhandl.) Die Gruppen mit einem endlichen Fundamentalbereich. [Sonderdrucke] aus Mathematische Annalen. 70 & 72 Band. [Leipzig: Teubner, 1911-1912] 8°. 297 - 336 pp.; 400 - 412 pp. Oumschl., angerändert.

\$ 390.-

Rare Off-Print issue of Bieberbach's seminal paper on Hilbert's 18th problem. Bieberbach wrote 1910 an important paper about groups of Euclidean motions that helped solve Hilbert's 18th problem. He expanded this in his habilitation of 1911. The first part of the 18th problem asks whether there are only finitely many essentially different space groups in n-dimensional Euclidean space. This was answered affirmatively by Bieberbach in 1910. „Soon after he arrived in Zürich, Bieberbach left to go to the University of Königsberg where Schönflies, who was the professor there, had arranged a teaching position for him. There he worked out the details of his solution to the first part of Hilbert's eighteenth problem publishing them in two papers Über die Bewegungsgruppen der Euklidischen Räume (1911, 1912). He submitted this work to Zurich as his habilitation thesis in 1911. Answering a question from Hilbert's famous collection certainly gave the young Bieberbach an international reputation.“ [O'Connor & Robertson] At Berlin he acquired a reputation as an inspiring but rather disorganised teacher, perhaps reflecting the doubt already expressed by the Faculty. The conversion of Bieberbach to the Nazi cause seems to have been quite sudden. Bieberbach, together with his four sons, showed their support for the Nazi cause by taking part in an SA march from Potsdam to Berlin. By November 1933, when he acted as one of Walter Ledermann's examiners, Bieberbach was wearing Nazi uniform when conducting the examination. Also at this time he was teaching a course entitled Great German mathematicians, a race-theoretic approach and these lectures formed the basis for three papers he published on the topic. Bieberbach developed the notion of a ‚German‘ synthetic style mathematics as opposed to the abstract ‚Jewish‘ analytic style. He founded a journal Deutsche Mathematik to encourage this German style in mathematics but, happily, the journal failed in 1943. He was involved in the repression of Jewish colleagues, including Edmund Landau and his former coauthor Schur.

62

**Dedekind, Richard; Karl Weierstrass.**

Zur Theorie der aus n Haupteinheiten gebildeten complexen Größen. Nachrichten von der Königlichen Gesellschaft der Wissenschaften und der Georg-Augusts-Universität zu Göttingen, No. 10 (12. November 1884). und No. 4 (23. März 1885). [Göttingen, 1884, 1885] 8°. pp. 395-420; 141-159 Back-Strip, little unfresh.

\$ 390.-

First printing of these important papers. „Algebras without nilpotent elements have been studied long ago. So, Weierstrass characterized in his lectures in 1861 finite-dimensional associative-commutative algebras without nilpotent elements over the field of real or complex numbers as finite direct sums of fields. To be exact, some nonessential restrictions have there been imposed. In 1870 Dedekind removed those nonessential restrictions. The following theorem of Weierstrass-Dedekind is now considered as a classical one: every finite-dimensional associative-commutative algebra without nilpotent elements over a field  $F$  is a finite direct sum of fields. The results of Weierstrass and Dedekind (for the case when  $F$  is the field of complex or real numbers) have been published in here.“ [Y. M. Ryabukhin, „Algebras without nilpotent elements, I,“ Algebra i Logika, Vol. 8, No. 2, pp. 181-214, March-April, 1969] „Weierstrass (1884) & Dedekind (1885) showed that every finite dimensional commutative ring extension of  $R$  with unit element but without nilpotent elements, is isomorphic to a ring direct sum of copies of  $R$  and  $C$ .“ Bourbaki's Elements of the History of Mathematics, 119: „By 1861, Weierstrass, making precise a remark of Gauss, had, in his lectures, characterized commutative algebras without nilpotent elements over  $R$  or  $C$  as direct products of fields (isomorphic to  $R$  or  $C$ ); Dedekind had on his side reached the same conclusions around 1870, in connection with his „hypercomplex“ conception of the theory of commutative fields, their proofs were published in 1884-85 [1,2]. [...] These methods rely above all on the consideration of the characteristic polynomial of an element of the algebra relative to its regular representation (a polynomial already met in the work of Weierstrass and Dedekind quoted earlier) and on the decomposition of the polynomial into irreducible factors.“

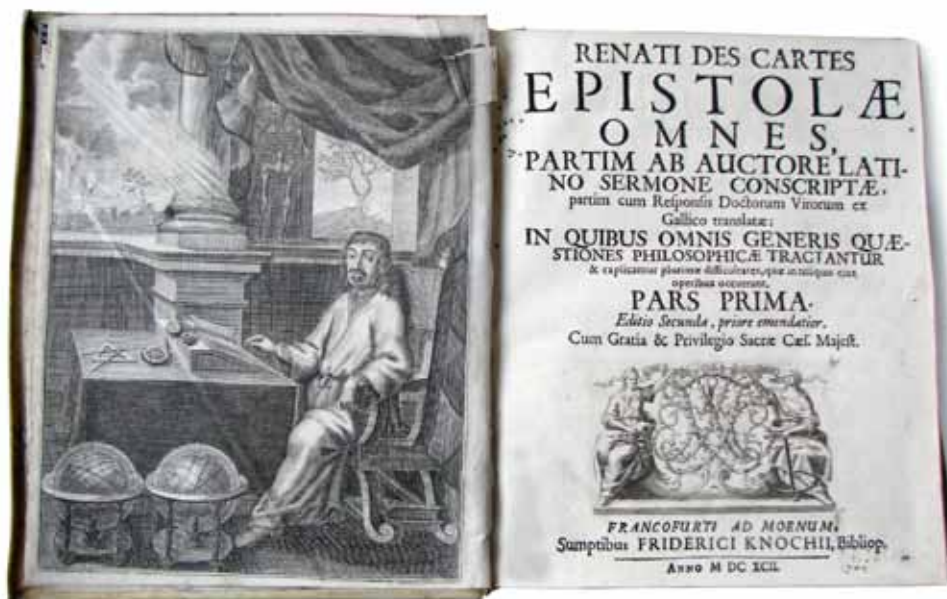
63

**Descartes, Rene.**

Renati Des Cartes Epistolae omnes, partim ab auctore latino sermone conscriptae, partim cum Responsis ... Editio secunda, prior emendatior. 3 Teile in I. Frankfurt am Main: sumptibus Friderici Knochii [Friedrich Knorre], anno MDCXCII [1692]. 4° [205 x 160 mm] [4] Bll., 340 pp., [2] Bll.; [2] Bll., 351 pp., [2] Bll.; [8] Bll., 374 pp. mit Frontispiz (Portr.), Illustr. in Holzschnitt u. Kupferst. im Text. Pergamentband d. Zt., aufgesetztes R.schild, grüner schnitt, Vorsatz alt beschrieben, Titel-Portr. etwas eingerissen, zwei Seiten etwas geknickt. Sauber u. frisch.

\$ 1300.-

Zweite vollständige lateinische Ausgabe der Briefe Descartes, zuerst 1682-83 in Amsterdam erschienen. Complete collected edition of Descartes' correspondence in Latin. A slightly itered reprint of the Amsterdam 1682-83 edition. The first two volumes are a re-issue of the Elzevier-Edition of 1668. Blaeu substituted new titles to these (but curiously maintained the Elzevier device), and enlarged the set with a third volume (1683, with Blaeu's own device). Presented are 352 of Descartes' letters and their importance can hardly be overrated, containing the author's physical and mathematical correspondence with Thomas Hobbes, Pierre Fermat, Marin Mersenne, Giles Roberval, the Cambridge Platonist Henry More, (and several others), with many mathematical papers of Fermat which did not appear in his Opera varia (Sotheran). The best account of Descartes' mental history during his life in Holland is contained in his letters, which extend over the whole period (1629 - 1649), and are particularly frequent in the latter half. The majority of them are addressed to Mersenne, and deal with problems of physics, musical theory (in which he took a special interest) and mathematics (W. Wallace).- Tchémertzine IV, 296; Guibert 91-94 no. 11; Willems 393; Sotheran, Second Supplement II, 466; Wellcome II, 453; Eitner III, 182.VD17 23:278265G; VD17 547:655141X; VD17 23:278270A



64

**Dirac, Paul A. M.**

Complex Variables in Quantum Mechanics. Extracted from: Proc. of Royal Soc. 16, 1937. [London, 1937] 8°. pp. 48-59 Loose sheets.

\$ 90.-

„As an interesting mathematical theory that fulfilled his [Dirac's] criteria of beauty, Dirac emphasized the theory of functions of a complex variable. He found this field to be of ‚exceptional beauty‘ and hence likely to lead to deep physical insight. In quantum mechanics the state of real variables, the domains of which are the eigen-values of certain observables. in 1937, Dirac suggested that the condition of realness be dropped and that the variables be considered as complex quantities so that the representatives of dynamical machinery belonging to the theory of complex functions. If dynamical variables are treated as complex quantities, they can no longer be associated with physical observables in the usual sense. Dirac admitted this loss of physical understanding but did not regard the increased ...“ [Kragh] Kragh. Dirac: a scientific biography. 282 ff.

65

**Emden, Robert.**

Gaskugeln. Anwendungen der mechanischen Wärmetheorie auf kosmologische und meteorologische Probleme. Leipzig, Berlin: B. G. Teubner, 1907. 8°. V, [1], 497 (+ 1) pp. Mit 24 Textfiguren, 12 Diagrammen und 5 Tafeln im Text. Blaugrauer Orig.-Lwbd., außen etwas stärker fleckig, innen jedoch sauber. Recht gutes Exemplar.

\$ 1500.-

First edition of this epoch-making treatise, a dedication copy to F. H. Bigelow. This work include the Lane-Emden equation, which can be used to describe the internal structure of gaseous spheres (stars) under certain simplifying assumptions; Emdens work preceded that of Eddington, Fowler, Chandrasekhar, and others. „A primary goal of studies of stellar structure in that period was to be able to describe the internal distribution of temperature, pressure, and density in terms of physics known from terrestrial laboratories and use this description to try to understand the observed relationships among stellar masses, sizes, brightnesses, and surface temperatures. The pioneering investigations [...] by Jonathan Lane, August Ritter and William Thomson [...] culminated in the work of Emden in the early 20th century. his equations described stars as polytropes, i.e. gases with particularly simple relationships between pressure and density. The key feature of these solutions, called polytropes, is that they do not require you to know what the energy source is, but only to know tht presuure must balance gravity for stars to be stable and that energy must be transported outward fast enough to maintain observed luminosities.“ [Ian T. Durham] „His masterwork „Gaskugeln“ (1907) was epoch-making: all subsequent textbooks on astrophysics have been based on it. He introduced the concept of „polytropic change of state“, although he did not need to display the radiation pressure explicitly in his calculations. Nevertheless, his pressure appeared mathematically in the exponents of the polytropic lines. Emden was also the first to give a derivation for radiative equilibrium for nondiscernible particles, that is, photon statistics. He thereby became a precursor in the use of the Bose - Einstein statistics.“ - Hockey [ed.] BEA I, 337-338; DSB IV, 360.

## Brownian Motion after Einstein & Smoluchowski - the Fokker Planck Equation

66

**Fokker, Adriaan Daniël.**

Over Brown'sche bewegingen in hetstralingsveld, en waarschijnlijkheids- beschouwingen in de stralingstheorie. Academisch Proefschrift ... Rijks-Universiteit te Leiden ... [Philosophische Diss. Univ. Leiden v. 1913] Haarlem: Joh. Enschede en Zonen, [1913] 4°. [8], 130 pp., [2, blank] Original-Publ. cloth, little used, but fine copy. [with:] Paul Langevin. Sur l' examen ultramicroscopique des centres charges en la theorie du mouvement brownien. [Extract from: Comptes rendus, tome CXLVI, 1908, pp. 530-33] [Paris, 1908]. Backstrip, folded.

\$ 1400.-

First edition, uncommon. In his 1913 thesis, he derived the Fokker-Planck equation along with Max Planck. The Fokker-Planck equation (named after Adriaan Fokker and Max Planck; also known as the Kolmogorov forward equation) describes the time evolution of the probability density function of position and velocity of a particle, but it can be generalized to any other observable, too. The first use of the Fokker-Planck equation was the statistical description of Brownian motion of a particle in a fluid. Adriaan Daniël Fokker (1887 - 1972), was a Dutch physicist and musician; he was a cousin of the aeronautical engineer Anthony Fokker. He studied mining engineering at the Delft University of Technology and physics at the University of Leiden with Hendrik Lorentz, where he earned his doctorate in 1913. He continued his studies with Albert Einstein, Ernest Rutherford and William Bragg. In his 1913 thesis, he derived the Fokker-Planck equation along with Max Planck. After his military service during World War I he returned to Leiden as Lorentz' and Ehrenfest's assistant. In 1928 Fokker succeeded Hendrik Lorentz as director of research at Teylers Museum in Haarlem.

67

**Ferroni, Pietro.**

De Calculo Integralium Exercitatio Mathematica Petri Ferroni, ... Florentiae [Florenz]: ex Typographeio Petri Allegrini, 1792. 4° [274 x 200 mm] XLVI, 344 pp., with 3 fold. plates. [innerhalb der römischen Paginierung mit Bindefehler, indem die Seiten: VII - XIV nach der Seite 2 eingebunden sind. Die Kollation ist somit I - VI, XV - XLVI, dann folgt das Titelblatt des Hauptteils (= pp. 1-2), VII - XIV, pp. 2-344] Kalbs-Lederbd. d. Zt. m. Goldprägung auf Rücken u. Deckeln. Lediglich das Titelblatt ein wenig fleckig. Ansonsten sauberes Exemplar in sehr gutem Zustand, ohne Benutzungsspuren, Stempel etc.

\$ 1400.-

First edition, uncommon. Pietro Ferroni (1744-1825), „mathemico regio“ war Professor für Mathematik an den Universitäten in Pisa und Florenz sowie Wasserbauingenieur des Großherzogs von Toskana.- Cantor IV, 858; Poggendorff I, 740. KVK: Stabi Berlin [wohl Kriegsverlust]; Göttingen, Kiel; COPAC: OCLC: UCL, Edinburgh; Yale, Michigan, John Hopkins, Columbia.

68

**Gentzen, Gerhard.**

Die gegenwärtige Lage in der mathematischen Grundlagenforschung. Sonder-abdruck aus: Deutsche Mathematik, Jahrgang 3, Heft 3. Leipzig: Hirzel, [1937] 4° [275 x 195 mm]. pp. 255-268 Brownish Original-Wrappers. Fine.

\$ 390.-

First edition, Off-Print-Issue. Gerhard Karl Erich Gentzen (1909 - 1945) was a German mathematician and logician. He had his major contributions in the foundation of mathematics, proof theory, especially on natural deduction and sequent calculus. He died in 1945 after the Second World War, because he was deprived of food after being arrested in Prague. Gentzen proved the consistency of the Peano axioms in a paper published in 1936. In his Habilitationsschrift, finished in 1939, he determined the proof-theoretical strength of Peano arithmetic. This was done by a direct proof of the unprovability of the principle of transfinite induction, used in his 1936 proof of consistency, within Peano arithmetic. The principle can, however, be expressed in arithmetic, so that a direct proof of Gödel's incompleteness theorem followed. Gödel had use an artificial coding procedure to construct an unprovable formula of arithmetic. Gentzen's proof was published in 1943 and marked the beginning of ordinal proof theory.

69

**Hasius [Hase], Johann Matthias.**

Doliorum dimensionis, sive pithometriae theoria et praxis nova, ex algebrae et matheseos recentioris principiis explicata et perfecta: quarum illa, post partes priores tres antehac separatim forma dissertationum academicarum aliquot propositas addita ultima parte suppletur, altera recens editur a Johanne Matthia Hasio, ... . Wittenberg: Gottfried Zimmermann's Erben [Haeredes Godofredi Zimmermanni], 1728. 4° [205 x 160 mm]. [8], 105 pp., 207-237 pp., [1] mit zwei Kupfertafeln mit mehreren Figuren. Contemporary english smooth calf, red edges, somewhat browned, title printed in red & black, good copy. Zeitgenössischer englischer geglätteter Kalbslederbd., R.titel verblast, R.vergold., roter Schnitt, Stehkanten vergold., Ex Libris am Vorsatz, innen durchgehend etwas stärker gebräunt. Nice copy.

\$ 1000.-

First edition, a very rare work on measuring the contents of barrels, a work in the tradition of Kepler's classical paper of 1615: „Nova stereometria doliorum“. Kepler's new integration techniques arose from his need to calculate how much wine was left in the barrels of his cellar in order not to run short in winter. Hase needed his techniques more for his cartographic skills. Johann Matthias Hase [Hasius] was a German mathematician, astronomer, and cartographer. Hase taught at Leipzig and his native Augsburg. In 1720, he became professor of mathematics at the University of Wittenberg. KVK cites only 3 copies in Germany at Dresden, München [eine col. Tafel, statt zwei], Göttingen; no copy in COPAC & OCLC.

## On Magical Squares

70

**Hellerung, Johann Christian Daniel.**

Mathematische Abhandlungen. Erste Sammlung, enthaltend: 1. Durchschnittspunkte der gegenüber liegenden Seiten der Vielecke im Kreise, analytisch betrachtet. 2. Theorie der magischen Quadrate, nebst Anhang. 3. Analysis der Bewegung der Doppelkörper, auf festen Unterlagen, phoronomisch und dynamisch betrachtet. Rostock und Schwerin: in Commission der Stillerschen Hofbuchhandlung, 1823. 4°. 169 pp., [1] Kleisterpapier-Pappbd. d. Zt., Rotschnitt, Vorsatz mit Schenkungsvermerk des Autors

\$ 600.-

Seltene Schrift zur Unterhaltungsmathematik von einem praktischen Arzt zu Wismar (1776 - 1847). Rare mathematical work by a medical practitioners, with a chapter on magic squares. - KVK: nur Rostock, Schwerin, COPAC: only UCL; OCLC: only Yale.

## First Systematic Exposition of Elliptic Functions

71

**Jacobi, Karl Gustav Jacob.**

Fundamenta Nova Theoriae Functionum Ellipticarum. Regiomonti [Königsberg], Borntraeger, 1829. 8°. VI, 191 pp., [1] with a folding table. Very good copy. Halb-lederbd. d. Zt., am R. restauriert, innen recht ordentl. Exemplar.

\$ 1200.-

First edition of „the first definitive book on elliptic functions, which he and Abel had independently discovered.“ Niels Henrik Abel and Carl Gustav Jacobi independently applied the decisive idea of the inverse function to elliptic integrals: Jacobi recognized the relation of elliptic functions to number theory and the theory of differential equations, showing how problems in dynamics could be reduced to systems of first-order partial differential equations. The book, his first, was a summary of 2 years of „far ranging thought“ (DSB) and collected his 1827 articles, greatly augmented, and supplemented for the first time with proofs. Jacobi (1804-1851) was one of the great German mathematicians of the 19th century. He became interested in applied problems after coming to the University of Königsberg where he received an appointment as an associate professor in 1827, largely on the recommendation of Adrien-Marie Legendre. The book is in two parts: Part I; the transformation of elliptic functions: Part II; their representation.- Landmark writings in Western mathematics, 412—430 [with full description]; DSB VII, 53 ff.; Norman 1150; Cajori 414-5; Bell, Men of Mathematics, Chap. 18.; Sothoran I, 2111.

## Erlangen Programm Revisted

72

**Klein, Felix.**

Vergleichende Betrachtungen über neuere geometrische Forschungen. [from: *Mathematische Annalen* 43 (1893)] [Leipzig: B. G. Teubner, 1893] 8°. pp. 63-100 Back-Strip, without wrappers.

\$ 690.-

Landmark paper. Second edition of Felix Klein's Erlangen Program with additional notes. Klein's Erlangen Program was his review of contemporary methods in geometry. It became, some 20 years later, the work from which a new generation of mathematicians came to see how geometry was being done and to appreciate the importance of group theory in the study of geometry. The reason for this deal, and also for its subsequent and continuing impact, was the novelty with which Klein re-united the disparate fields of geometry through his emphasis on the role of groups of geometric transformations. [Jeremy Gray].- Landmark writings in Western Mathematics, 1640-1940. pp. 544-553.

## Visualizing Data, Finding Hidden Trends

73

**Lambert, Johann Heinrich.**

Pyrometrie oder vom Maasse des Feuers und der Wärme. Berlin: Haude & Spener, 1779. 4° [252 x 198 mm] XXII, [2], 360 pp., [4] with 8 plates, two fold. Bound in early 19th century boards, slightly rubbed. Stamp verso to title. Minor browning in places. One plate lightly restored. Very good near fine copy.

\$ 2600.-

First edition, one of the earliest uses of a cartesian graph in a printed text. It is hard to imagine, yet the line graph as we know it was not invented until the late 18th century and Lambert being at the front-row. In this visual form, Lambert typically plots some independent variable, such as time, on the horizontal axis and some dependent variable, such as physical or chemical property that changes over time, on the vertical axis. This arrangement, invented by Lambert, is ideally suited for communicating multiple data points at a glance, visually representing implied cause and effect, uncovering trends in a large mass of data, and making comparisons among multiple data sets. "William Playfair, a political economist, made extraordinary contributions to the historical development of statistical graphics. But Playfair had a forerunner, J. H. Lambert, the great scientist. With his mathematical skills, Lambert thought clearly and deeply about the architecture of statistical displays, and his data graphics in *Pyrometrie* (1779) are far superior to the Playfair displays of the early 1800s." One of Lambert's most important works, containing the record and full discussion of his experiments with heat. - DSB VII, 599; Pogendorff I, 1355; Darmstaedter 226; Sotheran I, 2406: „Lambert's most important work, ‚Pyrometrie‘, is a systematic treatise on heat, containing the records and full discussions of many of his own experiments“; Steck, *Bibliographia Lambertiana* II.1; Roberts & Trent 193; Laura Tilling. Early experimental graphs; in: *BJHS* 8 (1975), 193-213. Thomas L. Hankins, Robert J. Silverman. *Instruments and the imagination*. 1995. pp. 120 ff.

74

**Lipps, Gottlob Fr.**

Die logischen Grundlagen des mathematischen Funktionsbegriffs. Inaugural-Dissertation zur Erwerbung der philosophischen Doctorwürde... Zweibrücken: August Kranzbühler, 1888. 8°. 34 pp., [I] Rückenbrosch., angestaubt.

\$ 120.-

75

**Lüroth, Jacob.**

Rationale Flächen und involutorische Transformationen. (= Programm wodurch zur Feier des Geburtsfestes ....) Freiburg: Univ.-Buchdruckerei Lehmann, 1889. 4°. [8], 25 pp. Red morocco, gilt printed covers, rubbed & soiled. Else fine.

\$ 140.-

First edition. Lüroth (1844-1910) was taught by Hesse and Clebsch and continued to develop their work on geometry and invariants. He published results in the areas of analytic geometry, linear geometry and continued the directions of his teachers in his publications on invariant theory. In 1869 Lüroth discovered the „Lüroth quartic“. This came out of an investigation he was carrying out into when a ternary quartic form could be represented as the sum of five fourth powers of linear forms. Some of his work on rational curves, published in *Mathematische Annalen* in 1876, was extended to surfaces by Castelnuovo in 1895. In 1883 Lüroth published his method on constructing a Riemann surface for a given algebraic curve. Lüroth also worked on the big problem of the topological invariance of dimension. He made some useful progress but this difficult problem was not completely solved until the work of Brouwer in 1911.

76

**Lundberg, Filip.**

Über die Wahrscheinlichkeitsfunktion einer Risikenmasse. Sonderabdruck aus der: *Skandinavisk Aktuarietidskrift* 1930. [Uppsala, Almquist & Wiksells, 1930] 8°. 83 pp. Original-Wrappers, little unfresh, stamped, ex Library.

\$ 180.-

One of his important papers. Ernst Filip Oskar Lundberg (1876 - 1965), Swedish actuary, founder of mathematical risk theory and managing director of several insurance companies. According to Harald Cramér, „Filip Lundberg's works on risk theory were all written at a time when no general theory of stochastic processes existed, and when collective reinsurance methods, in the present sense of the word, were entirely unknown to insurance companies. In both respects his ideas were far ahead of their time, and his works deserve to be generally recognized as pioneering works of fundamental importance.“ His works introduced the compound Poisson process and involved work on the central limit theorem. Cramér writes that his work has a reputation for being impossible to understand but, that looked at now, „one cannot help being struck by his ability to deal intuitively with concepts and methods that would have to wait another thirty years before being put on a rigorous foundation.“ Cramér mentions later work by Andrey Kolmogorov and William Feller but it was Cramér himself who developed Lundberg's ideas on risk and linked them to the emerging theory of stochastic processes. Lundberg's ideas became known largely through the work of Cramér and his students.- Heyde/ Seneta [Eds.] *Statisticians of the Centuries*, 308-311; Harald Cramér (1969) *Historical Review of Filip Lundberg's Work on Risk Theory*, *Skandinavisk Aktuarietidskrift* (Suppl.), 52, 6-12. Reprinted in *The Collected Works of Harald Cramér* edited by Anders Martin-Löf, 2 volumes Springer 1994.

77

**[Marivetz, Étienne Claude Baron de; Louis Jacques Goussier]**

Physique du Monde dédiée au Roi; par M. le Baron de Marivetz et par M. Goussier. [Tome Premier: Polemique, les cosmogenies et systemes de la terre; Tome Second: Physique celeste, tableau du ciel et un traité des planetes, des etoiles et de la pesanteur; Tome Troisieme: Lumiere, de l'optique, des telescopes; Tome Quatrieme: De la vision et des couleurs; Tome Cinquieme, premier partie: sur le feu]. 5 Vols. [of 7; without Vols. 5.2.; 5.3].- A Paris, chez Quillau, et Lafosse, 1780 - 1785. 4° [250 x 210 mm]. Mottled calf, little rubbed, else a good copy, incl. 20 partly coloured plates in folio.

\$ 2900.-

Very rare only edition, a project that bankrupt his author. With magnificent plates including images of a microscope, a camera obscura, a telescope, and astronomical systems. Missing the last two parts, as often [tome 5.2.; 5.3.]. Baron Etienne Claude de Marivetz (1731 - died 1794 by the guillotine), the son of an extremely wealthy ice manufacturer in Dijon, went to Paris where he studied the sciences with great zeal. In collaboration with Louis Jacques Goussier, the draughtsman who supervised the technical part / plates of the „Encyclopedie“ by Diderot and d'Alembert, he published *La Physique du Monde* (1780 - 1787),

which ruined him financially. Hoefer calls this work as very rare, because the work was confiscated by the nation and destroyed after him being brought to death. The published volumes of *Physique du Monde* (1780-1787) by Baron É.-C. de Marivetz and L.-J. Goussier fulfilled only a preliminary part of an ambitious plan to present a general theory of géographie physique, together with a new set of maps showing France's present and past topo-graphic conditions. The 1779 Discours préliminaire et prospectus to this project, together with publications ancillary to *Physique du Monde*, afford some insight into the partnership between Marivetz and Goussier, and into the ideas they had in mind when they promised an exposition of the general theory of physical geography by deduction from first principles of celestial physics. Believing that the Earth is presently in a prolonged period of warming, Marivetz and Goussier adopted a theory of the oceans' gradual diminution, through progressive conversion of water into solid matter by assimilation in organic bodies. An understanding of France's slow emergence from the sea, in the authors' view, was linked with one of their main practical interests: promotion of inland navigation through enlargement of the French system of interlocking canals. Their project thus reflects a typical Enlightenment conviction in the utility of knowledge. As an effort in geoscience conceptualizing, the Marivetz-Goussier project was in accord with a contemporary pattern of thinking, in which it was assumed that proper theorizing about the Earth must center upon law-like principles or descriptive generalizations.- Lit.: Kenneth L. Taylor. Marivetz, Goussier, and Planet Earth: A Late Enlightenment Geo-Physical Project; in: *Centaurus* 48 (2006), 258 - 283. Première et Seule Edition de cet ouvrage tres rare que l'on trouve difficilement complet „une partie des exemplaires ayant ete vendue a l'epicier et ceux qui restaient chez le libraire, apres la mort de l'auteur, furent transportes a l'Arsenal pour etre employes a des gargousses“ (Michaud, 26, p. 692). Nachweis: NUC: 3 copies [OkU, IU, ICU]; Pogg. II, 55; Lalande, 577 (only vol. 1); Querard V, 546; CAT. B.N., T. CVII, 82. Kollation: Band I: [2, blank], [8], [2], CXXXII, 248 pp., [2], 70 pp., [2, blank]; Band II: [2, blank], [10], [2], V-XIV, 15-318 pp., [2], 210 pp. [= 2. partie: Explication des planches], 49 pp., 1 mehrfach gefalt. Tabelle, 5 partly coloured plates in quarto, pp. 73-114 [= continuation of Dictionnaire of vol. I]; Band 3: [2], [8], 392 pp., plate VI - XIV [fold., partly col., quarto], 117 - 195 pp. [= continuation of dictionnaire of Vol. I/II], [2, blank]; Band 4: [2, blank], [16], 554 pp., [8], [= Nouveau Prospectus de l'ouvrage intitulé Physique du monde...], pp. 197-201 [= continuation of dictionnaire of Vol. I/III], 43 pp. [= Explication des planches], plate XV-XX [fold., partly col., quarto]; Band 5,1 [of 3 parts]: [2, blank], [4], IV, [4], XV, [1], 8 pp., 65 pp., [1, blank], 1 plate, 92 pp., 344 pp., [4].

## Fourth Dimension

78

**Minkowski, Hermann.**

Das Relativitätsprinzip. [extracted from: *Annalen der Physik* 352 (15), 1915] [Leipzig: B. G. Teubner, 1915] 8°. pp. 927 - 938. Back-Strip, without wrappers. Clean.

\$ 400.-

First edition of a paper found after his death in his papers, written in 1907, and lectured at Göttingen then. Hermann Minkowski (1864 - 1909) was a German mathematician of Lithuanian Jewish descent, who created and developed the geometry of numbers and who used geometrical methods to solve difficult problems in number theory, mathematical physics, and the theory of relativity. By 1907 Minkowski realized that the special theory of relativity, introduced by Albert Einstein in 1905 and based on previous work of Lorentz and Poincaré, could be best understood in a four dimensional space, since known as „Minkowski spacetime“, in which time and space are not separated entities but intermingled in a four dimensional space-time, and in which the Lorentz geometry of special relativity can be nicely represented. The beginning part of his address delivered at the 80th Assembly of German Natural Scientists and Physicians (September 21, 1908) is now famous: „The views of space and time which I wish to lay before you have sprung from the soil of experimental physics, and therein lies their strength. They are radical. Henceforth space by itself, and time by itself, are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality.“

## Kronecker's Approach to Mathematics

79

**Molk, Jules.**

Sur une notion qui comprend celle de la divisibilité; [Off-Print from Acta Mathematica, Vol. 6, 22. Mai 1884]. [Berlin, Mayer 1885] 4° [270 x 215 mm] I-166 pp. Original-Halfcloth., private binding. Without Wrappers and title. On the first page is a handwritten dedication by Jules Molk: „A la bibliotheque de Semin[ar] math. de l'Université de Berl[in] Jules Molk“

\$ 380.-

First edition; Thesis by the french mathematician Jules Molk under directorship of Leopold Kronecker; maybe the best exposition of Kronecker's approach to mathematics, which is often quoted as „God made the integers, all else is the work of man“. A dedication copy. Jules Molk, who studied under Kronecker in Berlin and became an enthusiastic advocate of Kronecker's point of view. Molk was born in 1857, and on his return to France wrote, with Jules Tannery, the standard french work on elliptic functions. He then became the editor in chief of the french edition of the Encyklopädie der mathematischen Wissenschaften, which made him France's answer to Felix Klein. He used his editorship of the Encyclopedie des sciences mathematiques to publish revised, updated, and often considerably extended versions of the German originals, especially in the field of algebra. He died in 1914. „Definitions must be algebraic and not only logical. It is not enough to say „Either a thing is, or it is not“. One must show what one wants to be and what not to be in the particular domain with which we are concerned. only then do we take a step forward. If we define, for example, an irreducible function as one which is not reducible, that is to say which is not decomposable into other functions of a definite kind, we do not give an algebraic definition, we only state a simple logical truth. For us to give a valid definition in algebra it is necessary that it be preceded by an account of the method which allows us to obtain the factors of a reducible function by means of a finite number of rational operations.“ [Molk, pp. 8; translation by Gray 156].- Jeremy Gray. Plato's Ghost 154-56.

## Principia & Analysis – the First Time Together

80

**Newton, Isaac.**

Philosophiae naturalis principia mathematica. Editio ultima. Cui accessit Analysis per quantitatum series, fluxiones ac differentias cum enumeratione linearum tertii ordinis. Amsterdam: Sumptibus Societatis, 1723. Quarto. [XXVIII], 484 pp., [8, last blank]; [XII], 107 pp., [1, blank] with title printed in red and black and with engraved vignette, and three engraved plates, two folding. Contemporary Calf, spine richly gilt in compartments, lettering-piece slightly faded, marbled endpapers, a little rubbed, first gatherings little spotted, else a fine and clean copy.

\$ 8000.-

Unauthorized Amsterdam Edition of the second edition [1713] of Newton's Principia, the first edition to include also the important „Analysis“. The Principia was published during Newton's lifetime in three authorized editions: London, 1687; Cambridge, 1713; and London, 1726. During this time there were also two unauthorized editions: Amsterdam, 1714; Amsterdam, 1723: only the Amsterdam edition of 1723 includes Newton's Analysis book. Edited by Roger Cotes, the second edition includes a substantial number of the number of changes including the propositions on the resistance of fluids, the lunar theory, the precession of the equinoxes, and the theory of comets. Cotes's Preface contains a strong attack against Cartesian physics in general and the vortex theory of planetary motion in particular. Newton's Philosophiae Naturalis Principia Mathematica is generally esteemed his masterpiece. This great work is often held to represent the culmination of the Scientific Revolution, in which science as we know it today was born. It is the founding treatise in the domain of rational mechanics, a term which was itself introduced into the discourse of science by Newton himself. Among the concepts originated by Newton and appearing in the Principia, the most important is no doubt „mass,“ introduced and named in Definition 1 of the Principia. In this work there are also set forth the three „Laws of Motion,“ generally known today as „Newton's laws.“ Here also is the first appearance in print of Newton's invention of the calculus, the universal tool of the exact natural and social sciences. What most attracted attention and admiration in the century after Newton's book was published, however, was not his magisterial contributions to the new science of dynamics or his presentation of the differential calculus, but rather his „System of the World,“ an explanation of the phenomena of our universe based on „scientific“ principles-a gravitational cosmology. Here was a magnificent display of the power of the human

mind strengthened and guided by science. Most people agreed with Sir Edmond Halley's judgment (in a poem he wrote as a kind of foreword to the Principia): „No mortal may approach nearer to the gods!“ The second part of this book marks only the fourth appearance of Newton's purely mathematical work in print. It is significant for both its content and for its role in the famous priority dispute between Newton and Leibniz over the invention of the calculus. As a compilation: „Analysis per quantitatum series, fluxiones, ac differentias“ contains four mathematical treatises and a sampling of correspondence, all related to Newton's work on the calculus. Two of the treatises had already been published in Latin in the first edition of the Opticks (1704). These are the „Tractatus de quadrata curvarum“ and the „Enumerationem linearum tertii ordinis“. A third treatise is entitled „De methodis differentialis“. It contains investigations of what are now known as the Newton-Bessel or Newton-Stirling formulas, which Newton had been working on as early as 1676, but which he had not published. The jewel of this book (1711, reprinted 1723), however, is the tract known as „De analysi per aequationes numero terminorum infinitas“. It was written by Newton in 1669 in response to his reading of Nicholas Mercator's Logarithmotechnia. Mercator's book contained developments tending in the direction of mathematical discoveries Newton had already made. Anxious to preserve credit for priority, Newton composed „De analysi,“ which he gave to the great English mathematician Isaac Barrow. Barrow showed it to mathematician John Collins, who made a copy. This is important because Collins was at this time something of a clearing house for information about developments in English mathematics and he showed the „De analysi“ to others. „De analysi“ thereby became the first systematic discussion of the calculus by Newton to circulate in public, and is thus one of the founding documents in the history of modern mathematics. Containing the text of two of Newton's earliest work, as well his first two published treatises, the Analysis serves as a wonderful starting place for those studying the history of the calculus. A full history of the priority dispute between Newton and Leibniz over the invention of the calculus is not possible here, but the role of the Analysis in the affair demands a short account. [Babson Collection]

81

**Noether, Emmy.**

Hyperkomplexe Größen und Darstellungstheorie in arithmetischer Auffassung. [Off-Print from] Estratto dagli Atti del Congresso Internazionale dei Matematici, Bologna 3-10 settembre 1928. [Bologna, 1928] 8°. pp. 71-73. No wrappers. Former ownership inscription on sheet by [Friedrich] Hartogs.

\$ 320.-

First draft, a more complete version was published in Mathematische Zeitschrift 1929 (see below). During the 1920s Noether did foundational work on abstract algebra, working in group theory, ring theory, group representations, and number theory. Her mathematics would be very useful for physicists and crystallographers, but it was controversial then. There was debate whether mathematics should be conceptual and abstract (intuitionist) or more physically based and applied (constructionist). Noether's conceptual approach to algebra led to a body of principles unifying algebra, geometry, linear algebra, topology, and logic. Auf dem Internationalen Mathematiker-Kongress 1928 in Bologna, an dem - erstmals nach dem Ersten Weltkrieg - deutsche Mathematiker wieder teilnehmen durften, präsentierte sie die Ergebnisse ihrer neuen Forschungsrichtung „Hyperkomplexe Größen“. - Tollmien 34; DSB X, 137-139.

## Pilier de l' Algèbre Linéaire Moderne (Bourbaki)

82

**Noether, Emmy.**

Hyperkomplexe Größen und Darstellungstheorie. [Off-Print from] Mathematische Zeitschrift, Band 30, Heft 5. Berlin: Julius Springer, 1929. 8°. 641-692 pp. Original-Wrappers, fine.

\$ 460.-

First edition, Off-Print-issue. Eine der Säulen der modernen linearen Algebra [piliers de l'algèbre linéaire moderne; Bourbaki]. . Much work on hypercomplex numbers and group representations was carried out in the nineteenth and early twentieth centuries, but remained disparate. Noether united the results and gave the first general representation theory of groups and algebras. Briefly, Noether subsumed the structure theory of associative algebras and the representation theory of groups into a single arithmetic theory of modules and ideals in rings satisfying ascending chain conditions. This single work by Noether was of fundamental importance for the development of modern algebra. Dabei handelte es sich um eine Ausarbeitung ihrer Vorlesung vom Wintersemester 1927/28, die van der Waerden angefertigt hat. Die Bearbeitung für den Druck hat Emmy Noether mit ihm gemeinsam vorgenommen

## Presentation Copy to Wigner

83

**Ortvay, Rudolf.**

Bevezteres a quantummechanikaba. Eloadas a „Pazmany Peter“ Tudományegyetemén az 1931/32. Tanev Masodik Feleben [= Introduction to Quantum Mechanics; A presentation at the Peter Pazmany University in the second semester of the 1931-32 Term]. [Maschinenschriftl. Type-script] Budapest: Peter Pazmany University, 1932. gr.8° [240 x 170 mm] 383 pp. Red half cloth, spine with gilt lettering, half-bound style w. marbled boards, inscribed by the author, minor shelf wear and bumping; text block, clean.

\$ 600.-

First edition, presentation copy to Eugene Wigner, Nobel Laureate 1932. In autumn 1929 Ortvay started his worthily famous lecture courses, where specialists and those who were interested had the possibility to deal with contemporary physics due to the most excellent home and foreign lecturers. These courses always gave evidence of how very many people Ortvay knew both at home and abroad, of his connections and his friendships with his students, colleagues and professors. Lecturers like John von Neumann, Imre Bródy, Kornél Lánzos, Edward Teller and Eugene Wigner can be mentioned here. At Ortvay's Colloquium also secondary school teachers were present, and they had the opportunity to discuss their research. Besides the great Hungarians, Ortvay invited to speak such foreign scientists as Debye, Dirac, Heisenberg, Planck, Sommerfeld as well. He carried on regular correspondence with Hevesy, Neumann, Wigner, and others, that built an intellectual bridge keeping Budapest aware of scientific progress even in the years of war.- no copy in COPAC or OCLC.

84

**Peano, Giuseppe.**

Sulle Funzioni interpolari. [Off-Print from Atti della R. Accademia della Scienza di Torino, XVIII] Torino: Ermanno Loescher, 1883. 8° [227 x 150 mm] 10 pp. Green Backstrip, fold in the middle.

\$ 680.-

Dedication copy by Peano to Hermite: „à M. Charles Hermite Hommage de G. Peano“. One of the earliest papers by Peano, the first step towards axiomatics.

85

**Poleni, Giovanni.**

De vorticibus coelestibus dialogus; Cui accedit Quadratura Circuli Archimedis, et Hippocratis Chii Analytica Expressa Authore Joanne Poleno. Patavii: Ex typographia Joannis Baptistae Conzatti, 1712 4° [320 mm]. [4] Bl., 219 pp., [1] with [7] folded leaves of plates with diagrams.

\$ 2400.-

First edition of an early response by an Italian mathematician to Newton's Principia and Leibniz' Tentamen, with references to Descartes and others. Giovanni Poleni was from 1709 Professor of Astronomy and Meteorology at the University of Padua, where he later occupied the chair of mathematics. The „De vorticibus...“ is an extremely well documented survey on the current debates on vortex theories in celestial mechanics. „In his characteristic style, Poleni presented the arguments for and against the various versions of the vortex theories then available, including Leibniz's harmonic vortex, without taking side with any of them or with the Newtonians. In those years Padua was the main mathematical centre in Italy, following the conquest of the chair of mathematics in 1709 by the Swiss Jakob Hermann, a pupil of Jakob Bernoulli at Basel.“ [Domenico Bertoloni Meli].- KVK: Stabi Berlin [Kriegsverlust?]; Göttingen, Halle, Kiel; Konstanz; COPAC: Cambridge; OCLC: Ann Arbor; Burndy, Michigan, Oklahoma. Lit.: Domenico Bertoloni Meli. Equivalence and priority: Newton versus Leibniz. 1993. 208 ff.

## Space &amp; Kabbalah

86

**Raphson, Joseph.**

*Demonstratio de Deo sive methodus ad cognitionem Dei Naturalem brevis ac demonstrativa. Cui accedunt Epistolae quaedam Miscellanea: De animae Natura & Immortalitate, de veritate religionis christianae, de Universo.* Londini [London]: apud Guil. Taylor, 1710. 4° [235 x 180 mm] [Viii], 107 pp., [1] Contemporary gilt-panelled calf, small hole on upper cover, spine gilt acorn motif and red label. Uniformly browned with the Macclesfield Library bookplate and blindstamped crests.

\$ 2800.-

Dedication copy to Thomas Parker. Inscribed: Vero vere Venerabili / Thoma Parkero / Equiti Aurato / Summo Anglia in Banco Regina / Justicianrio Vc / J Raphson.

First edition, uncommon. Joseph Raphson (1648-1715) holds a special place among the lodestars of Pantheism and recent scholarship credits him with originating the terms „pantheist“ and „pantheism.“ Historians know little of Raphson's life; not even an obituary has been found. Born in Middlesex, England, he attended Jesus College Cambridge and graduated with a Masters degree in 1692. Raphson gained membership in the prestigious Royal Society in 1691 on the strength of his first book, „Analysis Aequationum Universalis“ (1690). The book described a method for approximating the roots of an equation. Unknown to Raphson, Isaac Newton had earlier devised the same process (now known as the Newton-Raphson Method) but not published it. Raphson later worked with the renowned physicist and translated some of Newton's material from Latin to English. Raphson was one of the few people with whom Newton shared his mathematical writings [Gary Suttle].

Raphson's most notable work is *Analysis Aequationum Universalis*, which was published in 1690. It contains a method, now known as the Newton-Raphson method, for approximating the roots of an equation. Isaac Newton had developed a very similar formula in his *Method of Fluxions*, written in 1671, but this work would not be published until 1736, nearly 50 years after Raphson's *Analysis*. However, Raphson's version of the method is simpler than Newton's, and is therefore generally considered superior. For this reason, it is Raphson's version of the method, rather than Newton's, that is to be found in textbooks today. Raphson was a staunch supporter of Newton's, as opposed to Gottfried Leibniz's, claim as the inventor of Calculus. In addition, Raphson translated Newton's *Arithmetica Universalis* into English. The two were not close friends, however, as is evidenced by Newton's inability to spell Raphson's name either correctly or consistently. Along with the *Raphson's History of Fluxions*, Raphson published several other works both for Newton and for his career. He translated all of Newton's Algebraic work from Latin to English, as well as Newton's *Arithmetica universalis*. At the beginning of his career, in addition to *Analysis aequationum universalis*, Raphson published a short version of Ozanam's mathematical dictionary, entitled *A mathematical dictionary*.

## Invention of Pantheism

87

**Raphson, Joseph.**

*De spatio reali, seu ente infinito conamen mathematico-metaphysicum.* London: T.B. prostant venales apud A. & I. Churchill, S. Smith & B. Walford, I. Taylor & T. Bennet, 1702. 4° [245 x 185 mm]. [8], 95 pp., [1] Contemporary vellum-backed grey paper boards, clean large paper copy. Bookplate inside front cover: Earl of Macclesfield and blindstamped at title.

\$ 2800.-

Rare [separate] edition. First published in 1697 as an appendix to his edition of „*Analysis aequationum*“, than as the *Analysis* was republished in 1702, this work here was sold also separately [Separate copies at Leeds, Zurich & Berlin (Kriegsverlust ?) indicate this]. In any edition uncommon and here a large paper copy out of the Library of the Earl of Macclesfield, who once possessed the Newton Papers.

Raphson's greatest historical contributions were the theological works *De spatio reali* and *Demonstratio de deo*. In these works, Raphson freely expressed his philosophy, which based its structure and ideals upon the Jewish mysticism of Cabalism. This religious ideal's philosophies, which were strongly influential from the 12 century on, were passed down through the ages by an oral tradition. This religion focused on the withdrawal of the divine light, thus creating primordial space and its doctrines followed „cosmic restoration“ to Jews who live mystically. *De spatio reali* was a work which dealt with Raphson's vision of space, called ‚real space‘. He thought of space as being independent of the mind that perceives it. In this work he also discussed the infinite

(potential and actual) and motion in space, where space is said to be infinite, but the objects in it are finite. Demonstratio de deo dealt with the issue of space and Raphson's Cabalist ideals. As an ironic twist, Newton views of space were strongly influenced by religion, the Christian religion and philosophy.- Lit: Dict. 18th. cent. British Philosophers, II, 214; Copenhagen. Jewish Theologies of Space in the Scientific revolution: Henry More, Joseph Raphson; in: Annals of Science 37 (1980), 489-548. David J. Thomas, Judith M. Smith. Joseph Raphson, F.R.S.; in: Notes and Records of the Royal Society of London, Vol. 44, No. 2 (Jul., 1990), 151-167.

88

**Röhl, Lampert Heinrich.**

Kleine mathematische Abhandlungen von Lamb. Henr. Röhl Greifswald: gedruckt und verlegt von A. F. Röse, 1790. gr.8°. 126 pp. with nice vignettes and geometrical woodcut-illustrations Neuer Halblederbd im Stil der Zeit, unbeschnitten, schönes Exemplar.

\$ 900.-

Very rare collected papers by the Prof. of Astronomy at the Greifswald University. The topics of the essays are: Methodus generalis investigandi omnes numeros integros positivos,...; Erläuterungen einer vortheilhaften Rechnungs-Methode aus der Distanz des Mondes die Meereslänge zu finden, Über die geographische Lage von Greifswald, Ueber des Herrn Professor Fuß Rechnungsformel aus den gemessenen Höhen und Abstände..., Ueber dem Greifswaldischen astronomischen Gnomon, Berichtigung der Lage des Mittagsrohrs oder Transit-instruments (Instrument des Passages),... Ueber die Abmessung der Abstände vermittelst des Schalls. Lampert Hinrich Röhl (1724 - 1790), deutscher Mathematiker und Astronom. Im Jahr 1753 erwarb er die Erlaubnis, akademische Vorlesungen zu halten. Später begleitete Röhl seinen akademischen Lehrer Andreas Mayer bei dessen Reisen zur kartographischen Aufnahme von Schwedisch-Pommern. 1762 wurde Röhl astronomischer Observator und außerordentlicher Professor an der Universität Greifswald. 1775 wurde er der erste ordentliche Professor der Astronomie in Greifswald. 1788 war Röhl Rektor der Universität. Ein besonderes Verdienst erwarb Röhl sich 1773-75 durch die Einrichtung der Greifswalder Sternwarte in einem noch heute vorhandenen Befestigungsturm. Die Gründung der Sternwarte ging auf einen Vorschlag seines Lehrers Andreas Mayer zurück. Röhl war ab 1775 auch der erste Direktor der Sternwarte. Aufgrund seiner astronomischen Beobachtungen ernannte ihn die Stockholmer Akademie der Wissenschaften zu ihrem Mitglied. Die 1775 eingerichtete Astronomie-Professur war eine der ersten Fachprofessuren modernen Zuschnitts an der Greifswalder Hochschule. Er übersetzte Torbern Olof Bergman und Frédéric Mallet ins Deutsche.- Meusel XI, 376-79; DBE VIII, 475; ADB XXIX, 56.- KVK: Göttingen, Berlin, Greifswald, Jena, Leipzig; COPAC: Cambridge; OCLC: no copy in USA.

89

**Rydberg, Johannes.**

Recherches sur la constitution des spectres d'émission des éléments chimiques. Stockholm: Beijer, 1890. 4°. 155 pp. with 4 plates Original-Wrappers, spine repaired, printed wrappers removed. (= Kungl. Svenska Vetensk.- Akad. handl. 27,7)

\$ 800.-

First edition, scarce. Milestone in the history of Molecular spectroscopy. Rydberg's (1890) discovery of the 'quantum defect' modification to Balmer's formula, by observation of the s, p, d and f series of the sodium atom. Rydberg developed a general mathematical formula for expressing all series in all elementary line spectra (the formula includes the constant  $R_{\infty}$ , now known as Rydberg's constant), which allowed him to discover some important relationships between types of series. Rydberg's formula was of fundamental importance to Niels Bohr's Quantum theory of atom (1913), providing Bohr the means of incorporating the quantum of action into the theory of atomic construction. Johannes Robert Rydberg, 1854 - 1919), was a Swedish physicist mainly known for devising the Rydberg formula, in 1888, which is used to predict the wavelengths of photons (of light and other electromagnetic radiation) emitted by changes in the energy level of an electron in a hydrogen atom. Rydberg's most important work is on spectroscopy where he found a relatively simple expression relating the various lines in the spectra of the elements (1890). He hoped to determine the structure of the atom but, although his work did provide the basis for the structure theory, he himself did not reach his goal.- Lit.: Mike Sutton. Getting the numbers right - the lonely struggle of Rydberg. in: Chemistry World, Vol. 1, No. 7, July 2004. Mehra/ Rechenberg. The historical development of quantum theory I, 165 ff. DSB Plotnick sale no. 231. Ostwald's Klassiker

90

**Schmidt, Johann Andreas,**

Sebastian Levin Bugaeus [Respond.] Geometriam Brutorum Sub Sceptro Academico Rectoris ... Joannis Guilielmi Ducis Saxoniae ... Praeside Joanne Andrea Schmidt Prof. Publ. delineabit Sebastian Levin Bugaeus A. & R. Ad d. Ian. A.O.R. MDCXC. Ienae [Jena]: Literis Krebsianis, 1690. 4° [200 x 164 mm] 28 pp., mit [I] gefalt. Kupferstich. Rückenbrosch., fleckig und angestaubt.

\$ 480.-

Rare first edition, a work on the geometry in nature resp. the geometrical instinct of animals like bees. Johann Andreas Schmidt (auch: Schmid, Schmidius, 1652 - 1726 Helmstedt) war ein deutscher lutherischer Theologe und Kirchenhistoriker. Er absolvierte an der Universität Jena ein philosophisches Studium mit der Tendenz zur Theologie und erwarb im August 1676 den akademischen Grad eines Magisters der Philosophie. 1677 unternahm er eine Reise nach Hamburg wo er Esdras Edzardus, Eberhard Anckelmann (1641-1703) und Bernhard Sivers (1649-1694) kennen lernte und man ihm günstige Angebote machte, ihn dort zu halten. Er ging jedoch zurück nach Jena und fand 1679 als Adjunkt an der philosophischen Fakultät Zugang zum Hochschulbetrieb der Jenaer Hochschule. Eine aversierte außerordentliche Professur für Mathematik zerschlug sich 1680, stattdessen wurde er im Oktober 1683 ordentlicher Professor der Logik und Metaphysik.- VD17 23:643812M KVK: Halle, Erfurt, Göttingen, Hannover, Jena, Weimar, Wolfenbüttel, et al.; COPAC: BL London, Oxford; OCLC: Philadelphia Academy Natural Sc.

### Nine-Page thin Treasure of Ideas

91

**Schrödinger, Erwin.**

Über die Umkehrung der Naturgesetze. Sonderausgabe aus den Sitzungsberichten der Preussischen Akademie der Wissenschaften .... Berlin: Verlag der Akademie der Wissenschaften, 1931. gr.8°. 12 pp. Original-wrappers, front cover detached, Name on wrapper, used copy.

\$ 580.-

First edition, Off-Print issue, of Schrödinger's important paper on time-reversal of natural laws, as Aebi calls it „nine-page thin treasure of ideas“. Schrödinger proposes a particular view of diffusions while seeking the meaning of wave functions in quantum mechanics. He puts forward the idea that diffusions, given their marginals at finite initial and final time, are time-reversible. Schrödinger considers a huge cloud of independent and identical particles with known dynamics. This cloud is supposed to be observed at finite initial and final times. Although these two observations can be quite exceptional, they are accepted as given facts, representing reality. The problem is to determine the „most probable“ evolution of the cloud from initial to final time, conditional on the two observations.- Lit.: Robert Aebi. Schrödinger diffusion processes. 1996. [I intend to arrange a kind of exhibition of jewels discovered in Schrödinger's article from 1931 and to reveal some of their consequences for a wider field of mathematics]; Dick/ Kerber/ Meyenn. Bibliographie A90.

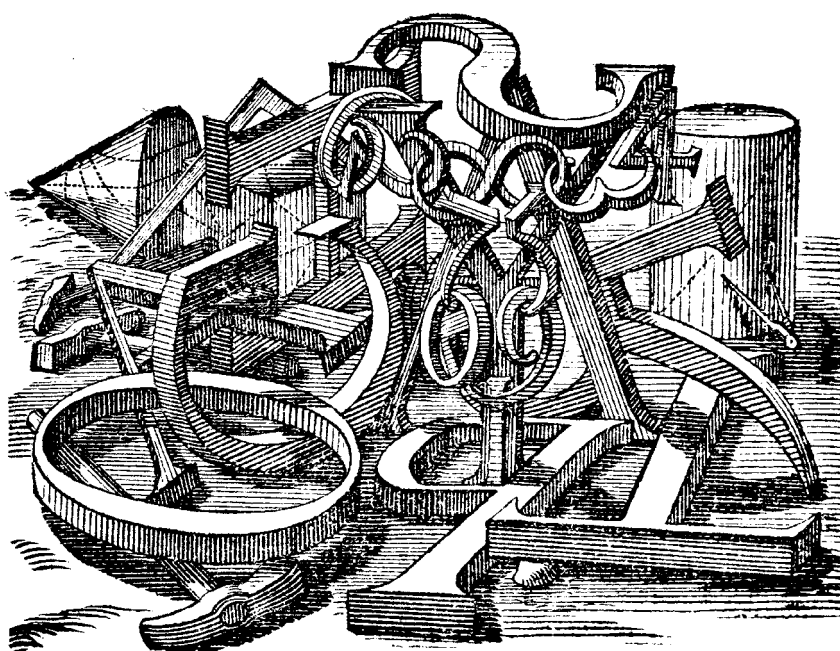
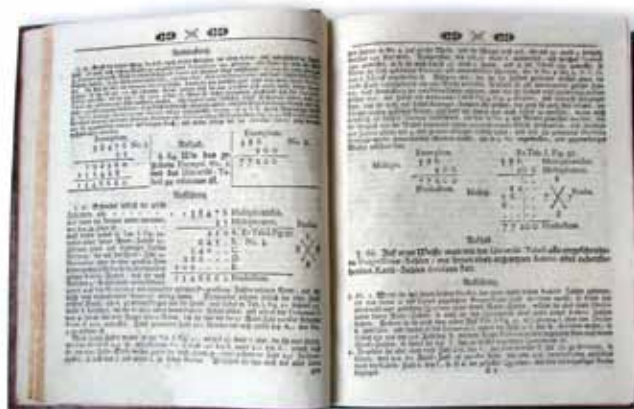
92

**Schübler, Johann Jacob.**

Die aus denen antiken Principiis naturalibus Numerorum eröff[!]nete Arithmetica Compendiosissima, oder die durch bloßes Aufschlagen in einem bequemen Rechnungs-Lexicon sich selbst-rechnende Rechen-Kunst; Mit welcher alle Menschen, so nur die Zahlen kennen, vermögend seynd, die mögliche Fälle der ganzen Rechen-Kunst, ... Nürnberg: zu finden bey Johann Michael Seitz, und Christoph Conrad Zell, gedruckt bey Johann Heinrich Gottfried Bieling, 1739. 4°. Titelei, [10], [36], 501 (+ 1) pp. Frischer Lederbd. d. Zt., mit Deckel-Monogramm-Prägung: [Sayn-Wittgenstein], etwas gewellt, innen sehr sauber und frisch, nur vereinzelt gering braunfl., einige Textholzschnitte. Sehr schöner, dekorativer Band. Selten.

\$ 1900.-

First & only edition. Johann Schübler was an architect in Nürnberg, but little else is known of his life. He wrote several books on architecture and perspective as well as other minor publications. This work is a large multiplication table giving the product of pairs of integers  $i, j$  ( $1 < i < 2400, 1 < j < 100$ ) The work seems to be scarce as it is not listed in Fletcher or any of the other standard works.- Tomash Coll. S 64. COPAC: BL London, UCL, Glasgow, Royal Society; OCLC: no copy [?], not in Kress Library.



## Physical Manuscript given to the King

93

**Siber, Thaddaeus.**

„Anfangsgründe der Naturlehre von T. S. [Thaddaeus Siber]" [German manuscript with ink on paper] [probably Munich, around 1810]. 4°. 282 pages with 162 numbered figures on 12 folding leaves bound at end. Attractive contemporary half leather, decorated gilt spine with black label, uniform light browning, the author's same neat hand throughout.

\$ 4000.-

Unpublished manuscript of the mathematician & physicist Thaddaeus Siber (1774-1854). Under 533 numbered paragraphs (1-205, 1-318), the text treats various physical topics in acoustics, optics, the science of heat, and electricity. The author was a Benedictine monk & professor of physics at the Lyceum in Munich from 1810, and from 1826 at the university there. This manuscript may be a preliminary study for Siber's book *Leitfaden zu Vorlesungen über Naturlehre und angewandte Mathematik* (Passau, 1805) or its retitled second edition *Anfangsgründe der Physik und angewandten Mathematik* (Landshut, 1815). Beside more technical treatises Siber wrote further on mathematical-philosophical question like: „Theorie des Unendlichen nach Schulz und Bendavid" (1808) and with Rixner edited for the first time in German earlier works of Giordano Bruno, Campanella, Paracelsus, Patrizi, Telesio, et al. with title: „Leben und Lehrmeinungen berühmter Physiker am Ende des 16. und Anfang des 17. Jahrhunderts" (7 Bde., Sulzbach 1819-26). This manuscript was dedicated to the bavarian kings where it survived until recently. The dedication page is inscribed to ‚Prinz Max Pius [August] von Birkenfeld, Herzog von Baiern' (1786-1837), who from 1815 was an honorary member of the Bayerische Akademie der Wissenschaften. - Pogg. II, 922; Callisen XVIII, 69; ADB XXXIV, 134.

## Presented to the King

94

**Siber, Thaddaeus.**

*Anfangsgründe der Physik und angewandten Mathematik. Zweite, ganz umgearbeitete Auflage.* Landshut: Philipp Krüll, 1815. 8°. x, 396 pp., with 128 numbered figures on 5 folding leaves, author's presentation inscription on front endpaper Contemporary tree calf with decorated gilt spine and black label, lightly rubbed, internally very fresh, a nice copy, with two manuscript leaves in the author's hand inserted loose.

\$ 1200.-

Revised edition of the work first published in 1805 under the title *Leitfaden zu Vorlesungen über Naturlehre und angewandte Mathematik* (see the previous item for the manuscript). The presentee is the same Bavarian nobleman as above. The manuscript notes concern plane and solid geometry, algebraic equations, logarithms and arithmetical progression.

## Sierpinski Curve

95

**Sierpinski, Waclaw.**

O krzywych, wypełniających kwadrat napisał W. Sierpinski. Warszawa: Prac Matematyczno-Fizycznych, 1912. gr. 8°. pp. 193-219. Original-Wrappers, back strip in red. Little used.

\$ 690.-

First edition in polish of Sierpinski's important work later known „Sierpinski curve". Sierpinski curves are a recursively defined sequence of continuous closed plane fractal curves discovered by Waclaw Sierpinski, which in the limit  $n$  to infinity completely fill the unit square: thus their limit curve, also called the Sierpinski curve, is an example of a space-filling curve. The Sierpinski curve is useful in several practical applications because it is more symmetrical than other commonly-studied space-filling curves. For example, it has been used as a basis for the rapid construction of an approximate solution to the Traveling

Salesman Problem (which asks for the shortest sequence of a given set of points): The heuristic is simply to visit the points in the same sequence as they appear on the Sierpinski curve. To do this requires two steps: First compute an inverse image of each point to be visited; then sort the values. This idea has been used to build routing systems for commercial vehicles based only on Rolodex card files. Waclaw Franciszek Sierpinski (1882 - 1969) was a Polish mathematician. He was known for outstanding contributions to set theory (research on the axiom of choice and the continuum hypothesis), number theory, theory of functions and topology. He published over 700 papers and 50 books. Three well-known fractals are named after him (the Sierpinski triangle, the Sierpinski carpet and the Sierpinski curve), as are Sierpinski numbers and the associated Sierpinski problem. In 1907 Sierpinski first became interested in set theory when he came across a theorem that stated that points in the plane could be specified with a single coordinate. He wrote to Tadeusz Banachiewicz (then at Göttingen), asking him how such a result was possible. He received a one-word reply ‚Cantor‘. Sierpinski began to study set theory and, in 1909, he gave the first ever lecture course devoted entirely to the subject. Sierpinski maintained an incredible output of research papers and books. During the years 1908 to 1914, when he taught at the University of Lwów, he published three books in addition to many research papers.

### Earliest Reaction to Moivre's Doctrine of Chance

96

**Simpson, Thomas.**

*The Nature and Laws of Chance. Containing, among other Particulars, the Solutions of several abstruse and important Problems. The Doctrine of Combinations and Permutations clearly deduced. A New and comprehensive Problem of great Use in discovering the Advantage or Loss in Lotteries, Raffles, &c. Full and clear Investigations of two Problems, added at the End of Mr De Moivre's last edition; one of them allowed by that great Man to be the most useful on the Subject, but their Demonstrations there omitted. Two new Methods for summing of Series. The Whole after a new, general, and conspicuous Manner, and illustrated with a great Variety of Examples. By Thomas Simpson, Teacher of the Mathematicks. London: printed by Edward Cave, 1740. 4°. [II], IV, 85 pp., small hole in title-page removing one letter. Contemporary mottled calf, rebacked, a very good copy.*

\$ 3000.-

First edition of the second book by the so-called ‚weaver mathematician‘, Thomas Simpson (1710-1761). An early reaction to Moivre's The doctrines of chances.- ESTC records 13 copies in the British Isles, 1 in Germany, 7 in North America and 2 in Australia.“Simpson's style is quite an exception in the panorama of British eighteenth-century mathematics. Unlike many of his countrymen, he leaned towards symbolical and abstract methods based on algebraical manipulations, and he looked with admiration to the analytical results achieved by continental mathematicians. His model was the French savant Alexis-Claude Clairaut. Simpson's most valuable mathematical achievements include his analytical expression of the so-called Newton-Raphson method of approximation of the root of an equation, his study of the methods for solving ‚isoperimetrical problems‘ (methods in what is now called the calculus of variations), and several works on probability and annuities. This last topic occasioned a polemic over priority with Abraham De Moivre. It is an irony that Simpson is nowadays remembered for ‚Simpson's rule‘ for obtaining the area under a curve, a result which he did not claim as his, and which was well known to Isaac Newton.“ (ODNB).

**Vierdimensionale Raum-Zeit-Kontinuum**

97

**Sommerfeld, Arnold.**

Zur Relativitätstheorie. I. Vierdimensionale Vektoralgebra. Separatabdruck aus den Annalen der Physik, Vierte Folge, Bd. 32 [1910]. Leipzig: Johann Ambrosius Barth, [1910] 8°. 749-776 pp. [with:] Arnold Sommerfeld. Zur Relativitätstheorie. II. Vierdimensionale Vektoranalysis. Separatabdruck aus den Annalen der Physik, Vierte Folge, Bd. 33 [1910].- Leipzig: Barth, 1910. pp. 649-689.

\$ 690.-

Highly important contributions to the theory of Relativity especially to Minkowski's Four-Dimensional Space-Time Continuum [Fourth dimension]. Hermann Minkowski maintained that the separation of time and space is a false conception; that time itself is a dimension, comparable to length, breadth and height; and that therefore the true conception of reality was constituted by a space-time continuum possessing these four dimensions. Minkowski published these ideas in two technical papers and in a popular account: „Raum und Zeit“ [1909; PMM 401]. Max Born and Arnold Sommerfeld saw in Minkowski's spacetime the future of theoretical physics. Both men had close ties to Minkowski, and upon the latter's untimely death on 12 January 1909, each took up the cause of promoting a spacetime approach to physics. In a crucial contribution to Minkowski's program, Sommerfeld [here] transformed Minkowski's unorthodox matrix calculus into a four-dimensional vector algebra and analysis, based on the notational conventions he had introduced in 1904 as editor of the physics volumes of Felix Klein's monumental Encyclopedia of Mathematical Sciences Including Applications. Sommerfeld's stream-lined spacetime formalism was taken over and extended by Max Laue, then working in Sommerfeld's institute in Munich, for use in the first German textbook on relativity theory. Laue's textbook was hugely successful, and effectively established the Sommerfeld-Laue formalism as the standard for research in relativity physics. Sommerfeld insisted upon the simplification afforded to calculation by the adoption of a spacetime approach, and left aside Minkowski's philosophical interpretation of spacetime, with one exception. In the introduction to his 1910 reformulation of Minkowski's matrix calculus, Sommerfeld echoed Minkowski's belief that absolute space should vanish from physics, to be replaced by the „absolute world“ of Minkowski spacetime [pp. 749]. This exchange of absolutes, Euclidean 3-space for Minkowski spacetime, was clearly designed to calm physicists shocked by Minkowski's high-handed dismissal of Euclidean space as the frame adequate for understanding physical phenomena. [Scott Walter].- Norman 1514; DSB XII, 525-532 [Sommerfeld]; DSB IX, 411-414 [Minkowski]; DSB XVII, 264-267 [Epstein]; DSB V, 122/123 [Frank].

**A Classic in Actuarial Science**

98

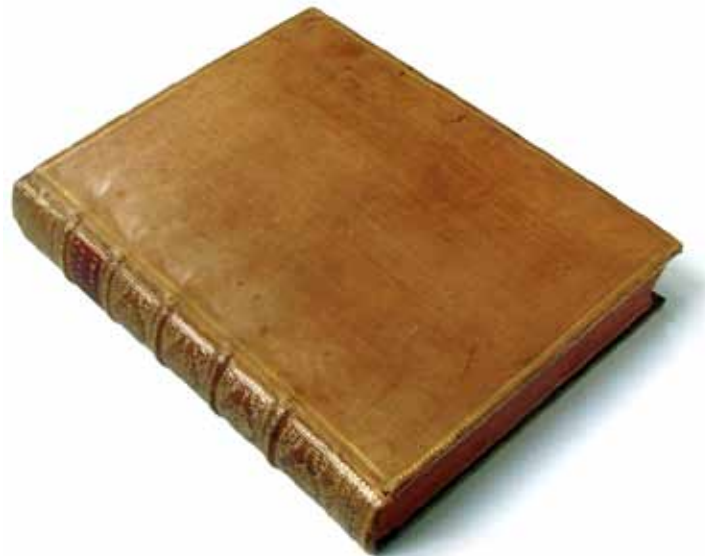
**Struyck, Nicolaas.**

Inleiding tot de Allgemeene Geographie, benevens eenige sterrekundige en andere Verhandelingen door Nicolaas Struyck. [Introduction to general geography, besides certain astronomical and other memoirs] [2 parts in 1] te Amsterdam: by Isaak Tirion, [1740]. 4° [258 x 200 mm] [7] Bl., 176 pp., mit [5] gefalt. Bl. Kupfertaf. u. Frontisp.- Portr.; 392 pp., [8], [2], mit [4] gefalt. Bl. Kupfertaf. Near contemporary polish calf gilt spine in compartments, red edges, first leaves blind-stamped. Fine copy in mint condition. Provenance: Earls of Macclesfield, Shirburn Castle.

\$ 2800.-

Very rare work included some important tract in the history of actuarial science. Similar to Hudde and Kersseboom, Struyck recognizes the importance of basing valuation tables on life tables for annuitants and not on life tables for the general population as Halley did. Using the registers for the Amsterdam life annuitants for 1672-74 and 1686-89, Struyck is the first to construct separate valuation tables for males and females. Nicolaas Struyck (1687-1769) was born into a burgher family in Amsterdam. He got a good education in classical subjects as well as in mathematics and the natural sciences. Throughout his adult life he earned his living as a teacher of mathematics, cosmography, astronomy, and accountancy and as an author of many books. He read profusely, carried on a vast correspondance with colleagues in many countries, and was elected member of the Royal Society London and the Acad. des Sciences in Paris. He wrote about probability theory, life annuities, population statistics, astronomy, geography, and accountancy. Nearly all his publications were written in Dutch, and for that reason his work did not

get the influence it deserved. His first book was entitled in translation: Calculation of the Chances in Play, by means of Arithmetic and Algebra, together with a Treatise on lotteries and Interest (1716). It shows that he masters probability theory as given in the works of Huygens, Montmort, Bernoulli's and Moivre to whom he refers. ... Struyck's treatises on life annuities and population statistics are to be found in a book published in 1740, which also treat many other topics. In his treatises on annuities he refers to de Witt and Halley but not to de Moivre (1725). He points out that the value of annuities should be calculated from life tables based on observation (as done by Halley) and not from hypotheses (as done by de Witt). [Hald] Lit.: A. Hald. A history of probability and statistics and their applications before 1750. pp. 394 ff.- KVK: Halle, Rostock, Göttingen; COPAC: Oxford; OCLC: Michigan, Yale, New York Public, Wisconsin. [Some copies don't have the 8 pages after part two which is present here].



## Complete Regularization of the Three-body Problem

99

**Sundman, Karl F.**

Recherches sur le probleme des trois corps. Helsingfors: Impr. Soc. de Litt. Finn., 1907. 4°. [2], II, 43 pp. Without wrappers, spine broken. (= Acta Societatis Scient. Fennicae, XXXIV, no. 6)

\$ 390.-

Karl Frithiof Sundman (1873 - 1949) was a Finnish mathematician who used analytic methods to prove the existence of a convergent infinite series solution to the three-body problem in 1906 and 1909. He was awarded the Pontécoulant prize by the French Academy of Science in 1913 for this work. „The most famous contribution of Sundman was his solution of the three-body problem which he accomplished using analytic methods to prove the existence of an infinite series solution. His work on this topic is contained in a number of papers: Recherches sur le problème des trois corps (1907), Nouvelles recherches sur le problème des trois corps (1909), Sur les singularités réelles dans le problème des trois corps (1910), and Mémoire sur le problème des trois corps (1912). ... Dell’Aglío looks at the approaches of Levi-Civita, Painlevé and Sundman to the three body problem which: ... constitute the greatest contribution to the development of this branch of modern celestial mechanics. ... it is possible to show the existence of two different research programs, one related to Levi-Civita’s works, the other to Sundman’s investigations, which include for the first time a complete regularization of the three-body problem. The methodological differences between these two research programs and their influences upon one another allow a complete reconstruction of this historical case. In particular, their divergences reflect different views about the mathematical model of the three-body problem; and, finally, different conceptions about the idea of ‚solution‘ of a physico-mathematical problem.“ [Robertson & O’Connor]

## The First who visualized Shock Waves

100

**Toepler, August.**

Beobachtungen nach einer neuen optischen Methode. Ein Beitrag zur Experimental-Physik. Bonn: Max Cohen, 1864. gr.8°. [4], 50 pp., [2] mit 4 gefalt. Tafeln. Gelblicher Pappbd. d. Zt., Grünschnitt, gering berieben u. bestoßen, sonst sauberes Exemplar.

\$ 690.-

Rare original edition, the first visualization of shock waves. The scientific investigation of the nature of shock waves started 130 years ago with the advent of the "schlieren method" which was developed in the period 1859 – 1864 by August Toepler. At the very beginning applied to the visualization of heat and flow phenomena, he immediately turned to air shock waves generated by electric sparks and subjectively studied the propagation, reflection and refraction of shock waves. Seltene Originalausgabe, erschien auch später als: Ostwald’s Klassiker der exakten Wissenschaften Nr. 158. August Joseph Ignaz Toepler (1836 Bonn - 1912 Dresden) war Chemiker, der 1864 das Schlierenverfahren in der Fotografie entwickelt hat. Er studierte von 1855 bis 1858 Physik, Mathematik und Chemie am Berliner Königlichen Gewerbeinstitut und war ab 1859 an der Landwirtschaftlichen Akademie in Poppelsdorf bei Bonn tätig. 1860 promovierte er in Jena und 1865 erhielt er eine Professur für Chemie und chemische Technologie am Polytechnikum in Riga. Von 1869 bis 1875 lehrte er an der Universität Graz, ab 1876 am Polytechnikum in Dresden. Toepler widmete sich der theoretischen und experimentellen Physik. 1862 entwickelte er eine sehr effektive Vakuumpumpe und 1864 das Schlierenverfahren zur Abbildung des Dichtefeldes in einem durchsichtigen Medium. 1883 konstruierte Toepler eine magnetische Waage. Auch die Konstruktionen modernerer Influenzelektroisiermaschinen gehen auf ihn zurück, da er ab 1865 seine Forschungen über die „Erzeugung hoher Gleichströme“ forcierte, und im Rahmen dieser Forschungen fortan regelmäßig seine neuesten wissenschaftliche Erkenntnisse veröffentlichte.

## Mathematics &amp; Music

101

## Vallerius, Harald.

Disputatio physico- musica de sono, quam ... sub praesidio ... Andrea Norco-pensis [Andreas Nilsson Nordenhielm] ... publico examini subiciet Harald Vallerius. 3 parts in 1. Holmiae: excudebat Nicolaus Wankiff, [1674]. 4° [185 x 140 mm] [48] nn. pp. with geometrical fig. in woodcut within the text. Modern Halfvillum period style, title stamped. The single parts differate little in size. [with:] Vallerius, Harald. Disputatio Physico- musica secunda De modis, quam cum consensu ... Respondente Nathanaele Rydelio, ... [Uppsala: Henricus Curio, 1686] [22] nn. pp. with geometrical fig. within text, dedication not printed but handwritten [with:] Vallerius, Harald. Dis-putatio musica de tactu qvam ... sub praesidio ... Harald Wallerii ... ad publicum examen ... defert ... Olaus Retzelius .. [S.l.]: [s.n.], [1698] [4], 56 pp., [2] with music notat. in the text.

\$ 800.-

Very rare; being the only dissertations in music theory from Uppsala University in the 17th century. The first one, *De sono* (1674), was defended by Harald Vallerius (1646-1716) under the presidency of Andreas Norcopensis (1633-1694, ennobled Nordenhielm in 1687). The two following ones, *De modis* (1686) and *De tactu* (1698), were both defended by other students under the presidency of Vallerius himself, who at that time had become a professor of mathematics in Uppsala. Vallerius' dissertations are the only printed examples of a discourse in music theory from the 17th century in Sweden, which makes the elucidation of them a most rewarding task. There the contemporary level of proficiency in the subject is reflected, as well as ideas mediated through the influence of thinkers on the continent such as Athanasius Kircher, René Descartes, Marin Mersenne and Isaac Vossius. The value of the texts is accentuated by the fact that Vallerius was also a practicing musician of long-lasting importance. Among other things he was one of the musical editors of the hymnal (*Koralboken*) of the Swedish Church in 1697. Harald Vallerius (1646 - 1716) was professor of geometry in Uppsala from 1690 to 1712. The geometry professor was second in rank of the two mathematics professors at the time, „professor matheseos inferioris.“ He was also called „professor euclideus“. He knew Newton's theories early and Newton's name is already mentioned in the dissertation: *Theorema de Matheseos Incrementis*, written in 1694. The dissertation describes the different parts of mathematics with a name cavalcade of its practitioners. In 1710 Vallerius [Waller] was involved in starting the first scientific society in Sweden, *Collegium Curiosorum* (society of the curious). He was avidly interested in music, and in 1697 he completed a new edition of the hymnal together with Olof Rudbeck, Sr. He was succeeded as professor by his son Johann in 1712. Harald Vallerius was one of the first to put forward a series of theories on race and descent. One of his main criteria was skin colour.- Lit.: Sadie. *Companion to Baroque Music*. pp. 182 pp.- KVK: no copy of *De sono*, *De tactu* and *de Modis*; COPAC: *de sono*, *de tactu* [BL London]; OCLC: no copy.

## VI. Varia



### Oriental Dream & Archeology

102

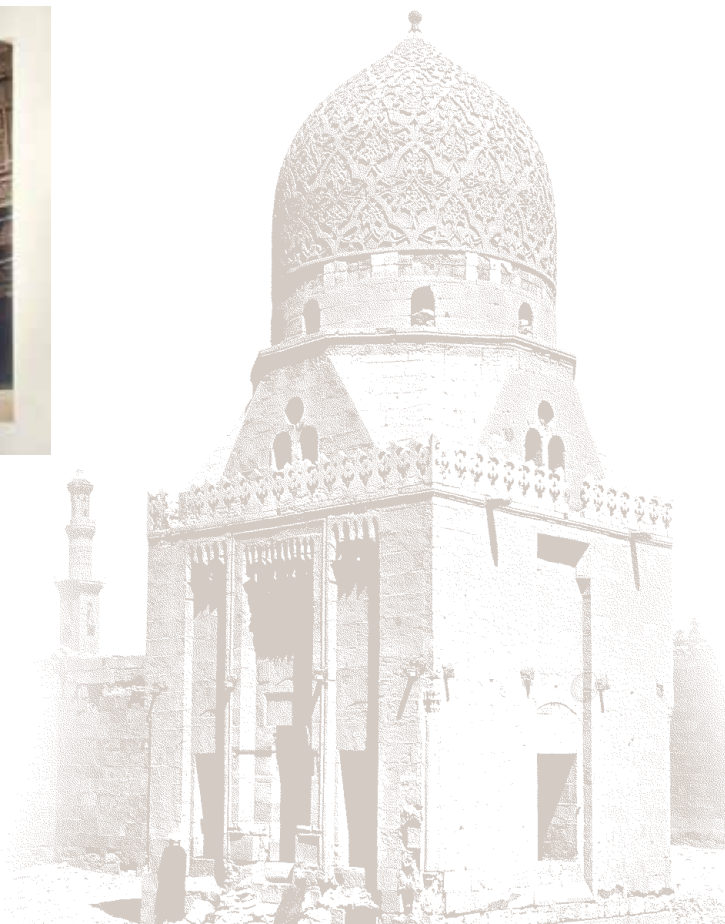
**Béchar, Henri [Photographer]**

A lot of 188 photographs containing a comprehensive series of views including historic monuments and buildings, and the people and environs of Cairo. One hundred and seventyfive photographs of Egypt, and thirteen photographs of Nubia; a series of albumen prints, each image approximately 10½ x 14½ inch [265 x 370 mm], titled, numbered and signed in the negatives, mounted on papercard. Not bound previously. [Egypt, ca. 1865 - 1875] [Carton: 497 x 377 mm, image: 379 x 272 mm; variable] 188 leaves with mounted albumen prints / photographs. Unbound and never have been. Modern Cloth-Folder.

\$ 49000.-

An impressive collection of 188 photographs by Henri Béchar (active 1868-1880) of Egypt & Nubia; a comprehensive series of views including historic monuments and buildings, and the people and environs of Cairo, bought by an englishman on „tour“, most probably by Shalcross Fitzherbert Widdrington (1826 - 1917) who had been in Egypt in the late 1860s, early 1870s. Henri Béchar (late 1869-1880) operated a photographic studio in Cairo in the Ezbekiah Garden District from which he sold standard tourist views, as well as a series of types and costume studies. No doubt he was attracted by the influx of visitors and potential customers at the time of the opening of the Suez Canal, which also coincided with the first package tourist trips to Egypt. In 1888 A. Palmiere published a set of 150 photogravures out of the work of Henri Bechar: ‚L' Egypte et la Nubie‘, which is valued high today. Bechar received a medal at the Paris Universal Exposition of 1878. No land more intrigued the scholar and sparked the imagination of the nineteenth-century traveller than Egypt. Fueled by the Romantic poetry of Victor Hugo, Lord Byron and Gustave Flaubert, from the earliest days of photography its practitioners traveled to the ancient sites of Egypt and the Near East. Photography's speed and apparent objectivity offered the means to record and share the experience of distant lands. Scholars in the emerging field of archaeology valued the photographs, and the affluent travellers in ever-increasing numbers who toured places celebrated for their antiquities prized them as souvenirs. Béchar's photographs are rarely reproduced in modern publications, and until now he has been known primarily for his photographs of Egyptian antiquities and archaeological sites. However he also produced many photographs of people, both inside the studio and out of doors. His work, whatever the subject,

is characterized by a dramatic sense of presentation and careful attention to composition. In the studio, Béchard often posed his subjects against a dramatic array of large plants on a dirt ground which provided a more realistic setting than the painted backdrop and flowered carpet favoured by Bonfils. He was adept at arranging compositions of several people, each of whom appeared to be isolated in his or her own private space. He posed people against stone buildings, or against plastered walls, or in a garden, apparently able to take advantage of photographic opportunities that he encountered. Béchard is somehow able to keep his subjects still, but looking reasonably natural. The people in his photographs often look somber, but they do not generally have the very unhappy expressions that are often found in other commercial photographs from this period and region. Bechard's Plate-Numbers present: 1, 3-6, 8, 10-21, 23-40, 43-44, 46, 48-51, 53-61, 63-73, 75-95, 97, 99, 100, 103-121, 123, 125, 127-138, 140-144, 146-177, 179-191, 193-211 [all pictures of Palmiere present except: plate number 40, 43, 77, 79, 81, 99, 100, 105, 107, 109, 118, 119, 129, 137] [Nancy Micklewright. Annie Brassey. A Victorian traveler in the Middle East: the photography and travel writing, pp. 118 - 121]; Encyclopedia of nineteenth-century photography, I, 131. Ausstellungen: 1989 Amsterdam, Rijks-Mus., Rijksprentenkabinet: Fotokunst 19e eeuw (Kat.); Köln, Röm.-German. Mus.: An den süßen Ufern Asiens (Kat.); L'Égypte d'Henri Béchard. Photographe actif au moyen-orient dans les années 1870 - 1880. Galerie Yves di Maria; Museum Ludwig. Bestandsaufnahme: Die Photographien von Henri Béchard aus Ägypten und dem übrigen osmanischen Reich; Pioniere der Kamera, ..., Die Sig R. Lebeck (Kat.), Bremen 1987; N. Nissan Perez, Focus east, Early photography in the near east (1839-1885) 132; Allgemeines Künstlerlexikon; Die Bildenden Künstler aller Zeiten und Völker, Saur, München, VIII, 1994, 111 (Thilo Koenig); Lily Farhoud; Andreas Blühm. Focus Orient. Orientalist Photography from the Late 19th and Early 20th Century. 2009.



## Second known Copy [?]

103

**Buhse, [D.]; A. Schoenborn.**

Plan von Danzig. Nach trigonometrischer Aufnahme im Auftrage des Magistrates in den Jahren 1866 bis 1869 gefertigt durch Buhse, K. Reg. Geometer. Lithographie und Druck von Julius Sauer in Danzig. Meter Maasstab 1:1000. Danzig: Julius Sauer, [um 1869]. Imperial-Folio. 18 lith. Kartenblätter [jeweils ca. 86 x 68 cm, Sektion 13 nur 46,5 x 68 cm]. Lose in späterer Leinwand.-Mappe. auf Holzdeckeln. Leicht gebräunt oder stockfleckig, einige kleinere Randeinrisse. Sektion 18 verso angeschmutzt.

\$ 5400.-

A very rare large-format plan of the city Gdansk / Danzig in 18 sections, on a scale of 1:1000. I could trace only one copy in the BL London. The copy in Germany [Marburg] seems to be a facsimile copy. Sehr seltener großformatiger Stadtplan von Danzig in 18 Sektionen, Maßstab 1:1000. Mir ist nur ein Exemplar in der BL London bekannt.- Schwarz, Danzig im Bilde 4. - KVK: Marburg, Herder- Institut [1 Kt auf 18 Bl.: je 38 x 29 cm; Kopie !]; COPAC: BL London; OCLC: no copy [?].

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**[Cambridge Philosophers; William Whewell & others] ,MSS.**

Notes on the Moral Sciences' (4 volumes), ,MSS. Notes on the Classics' (1 volume), ,MSS. Notes on the Greek Testament' (1 volume), Trinity College Cambridge, 1851-1853. [Handwritten manuscript notes by unknown hand on lectures held in Cambridge around 1850]. 6 volumes. [Cambridge, 1851-1853] Varying Sizes. Approx. 300 pp. per volume. Uniformly bound in contemporary half calf (one upper cover nearly detached), spines ornately gilt, labelled as above, the same legible hand in black ink on recto throughout.

\$ 2000.-

These books contain student notes of lectures given by well-known academics resident at Cambridge University during the early 1850s. Of most interest will be those by Sir James Stephen, Professor of Modern History, and William Whewell, Master of Trinity. In the 20 lectures transcribed here, Whewell hammers home to his students his opposition to Utilitarianism, and refers them repeatedly to his Elements of Morality, including Polity (1845) and Lectures on the History of Moral Philosophy in England (1852). The final lecture begins with the instruction „Read replies to my Criticisms (on Bentham chiefly) and then read my Criticisms again“. „Between 1835 and 1861 Whewell produced various works on the philosophy of morals and politics, the chief of which, Elements of Morality, including Polity, was published in 1845. The peculiarity of this work-written from what is known as the intuitional point of view--is its fivefold division of the springs of action and of their objects, of the primary and universal rights of man (personal security, property, contract, family rights and government), and of the cardinal virtues (benevolence, justice, truth, purity and order).“ [wikipedia] From a pencilled note on one of the endpapers, the transcriber appears to be one John Ramsay of Trinity College.

Vol.1: STEPHEN, Sir James: Lectures on the Treaties of France during the Reign of Louis XIV. 1852, etc. Vol.2: . continued, lectures on various topics in European history, including ‚International Toleration‘, 1853-54. Vol.3: PRYNNE, George: Lectures on Political Economy, Easter Term 1853. Vol.4: WHEWELL, William: Lectures on Moral Philosophy, Lent Term 1853. Vol.5: small 4to, Lectures by Mr Frere and Mr Thompson on Plato, Aristotle, Virgil, Homer, Athenian Laws, etc. 1851-2. Vol.6: large 4to, Mainly reading notes on various topics in Biblical Criticism and particular books of the New Testament.

## Dürer's Hand Drawings on Proportional Studies brought to Light

105

**Dürer, Albrecht.**

Albrecht Dürers Handzeichnungen in der Königlichen Bibliothek zu Dresden. Mit einer Vorrede von A. von Eye ... Reproduciert von F. Leyde. Nürnberg: Soldan, 1871. Folio. 40 guards with mounted photographs. Original-Wrappers, used. [with] Dürer, Albrecht. Albrecht Dürer's Handzeichnungen im Königlichen Museum zu Berlin. Nürnberg: Sigmund Soldan, [1871]. Groß-Folio [500 x 300] 72 Photo-Lithographien mounted on guards. Without text. In Original-Wrapper, which is used. Else fine.

\$ 1400.-

Very rare first reproductions in photography of the proportional studies of Albrecht Dürer held by Dresden Library. I could locate only copies at Heidelberg; Bibliothek der Künste, Berlin, V & A Libraries. There seems no copy in the USA. [with] Rare first edition [three US copies located] of the first reproduction of Durer's sketches in their original size held by the Berlin Library, by the process of tinted 'photolithographie'. The engravings are impressively faithful and consist mainly of portraits of his (often named) contemporaries, along with a selection of more imaginative works. The lithographs were composed by the Burchard brothers of Berlin from the originals in the Royal Museum, while the completed work was given an introduction by a director of the Germanisches Museum in Nürnberg and published there in 1871, to commemorate the 400th anniversary of Dürer's birth. The first attempt to faithfully reproduce Dürer's original works for the amateur collector, the present title appears to be very rare. Only five copies have been located in university libraries across Germany, while three American copies are known. - Vgl. Singer, Versuch einer Dürer Bibliographie.

Seltene erste Ausgabe dieser sorgfältig gedruckten, grossformatigen Wiedergaben von Dürers Handzeichnungen, die zahlreiche Portraits seiner Zeitgenossen enthalten.

## Presented to his King

106

**Klenze, Franz Karl Leopold von.**

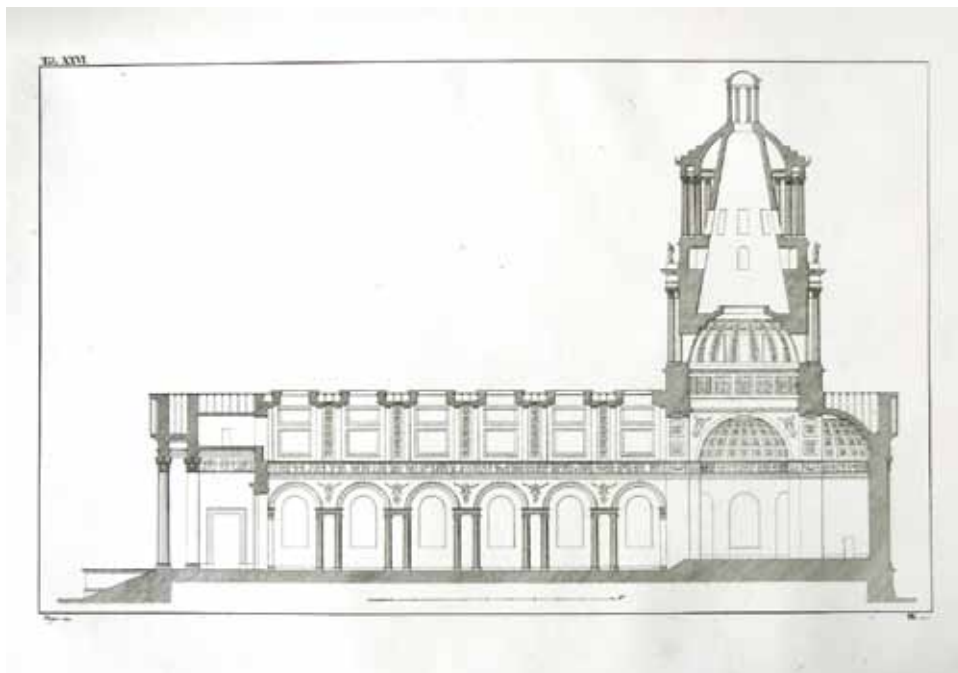
Anweisung zur Architectur des christlichen Cultus. München: [no printer], 1822. Folio. VI, 35 pp. with lithograph. Titel & 38 lith. plates from Joseph Unger, after Leo von Klenze. The plates show drafts for village and town churches, cathedrals, cementeries, chapels, etc. Contemporary red half calf with floral border, gilt edges, some rubbing and scuffing, original gilt faded. Clean and wide-margined copy.

**Klenze, Leo [Leopold] von.** Versuch einer Wiederherstellung des toskanischen Tempels nach seinen historischen und technischen Analogien. - München [Munich]: [no printer], 1821. 86 pp., [2] with two fold. engraved plates by Schleich Sen. after Leo Klenze. Contemporary red morocco, flat spine richly gilt. Covers framed by gilt fillets, all edges gilt. A marvelous copy on thick paper, broad-margined.

\$ 7500.-

Very rare first editions, not intended for the trade. These copies came from the library of the Bavarian Kings in Tegernsee, the employee of Leo Klenze. There is a dedication letter by Klenze, dated Munich 22. 7. 1824 coming with: „... ein Werk zu übersenden, dessen Zweck die Beförderung der religiösen Kunst ist: eine von mir auf Veranlassung der Regierung verfaßte Anweisung zur Architektur des christlichen Cultus. Der höchstwichtige und bis jetzt in ziemlicher Verworrenheit liegende Kunstzweig, welcher hier zum erstenmale in seinem ganzen Umfange behandelt erscheint...“ Leo von Klenze (1784 - 1864) was a German neoclassicist architect, painter and writer. Court architect of Bavarian King Ludwig I, Leo von Klenze was one of the most prominent representatives of Greek revival style. Von Klenze studied architecture and public building finance under Friedrich Gilly in Berlin, and worked as an apprentice to Charles Percier and Pierre François Léonard Fontaine in Paris. Between 1808 and 1813 he was a court architect of Jérôme Bonaparte, King of Westphalia. Later he moved to Bavaria and in 1816 began to work as court

architect of Ludwig I. The King's passion for Hellenism shaped the architectural style of von Klenze. He built many neoclassical buildings in Munich, including the Ruhmeshalle and Monopteros temple. On Königsplatz he designed probably the best known modern Hellenistic architectural ensemble. Near Regensburg he built the Walhalla temple, named after Valhalla, the home of gods in Norse mythology. When Greece won its independence, Ludwig I's son Otto became the country's first king. Von Klenze was invited to Athens to submit plans of city reconstruction in the style of Ancient Greece. Russian Emperor Nicholas I commissioned von Klenze in 1838 to design a building for the New Hermitage, a public museum that housed the Romanov collection of antiquities, paintings, coins and medals, cameos, prints and drawings, and books. Von Klenze was not only an architect, but also an accomplished painter and draughtsman. In many of his paintings ancient buildings were depicted. Those served as models for his own architectural projects. Klenze studied ancient architecture during his travels to Italy and Greece. He also participated in excavations of ancient buildings in Athens and submitted projects for the restoration of the Acropolis. Klenze collected works of important contemporary German painters. He sold his collection, including 58 landscapes and genre paintings, to King Ludwig I in 1841. These paintings form the core of the Neue Pinakothek museum's collection. Sehr seltene erste, nicht für den Handel bestimmte Ausgaben.- Winkler 882,17; Maillinger II, 1639; Kruft 693 und 348; Ornamentstichsamml. Berlin 2065; Thieme-Becker XX, 480. [trade edition of 1834] II.) First separate edition. „Klenze's Versuch ist für seine Denkart bezeichnend. Ausgehend von Vitruvs Angaben über den toskanischen Tempel gelangt Klenze über die Geschichtskonstruktion eines Analogieschlußverfahrens zu einer Rekonstruktion, indem er zwischen der etruskischen Architektur und den gegenwärtigen Baue-wohnheiten Rätien's abstammungsmäßige, religionsgeschichtliche und sogar etymologische Verbindungen herstellt.“ (Kruft).- Not in SMPK, Ornamentale Vorlagenwerke, Berlin cat., Borroni; Kruft 348; UCBA I, 100.



107

**Leibniz, Gottfried Wilhelm / Böldicke, Joachim.**

Theodicee, das ist, Versuch von der Güte Gottes, Freyheit des Menschen, und vom Ursprunge des Bösen, bey dieser vierten Ausgabe durch-gehends verbessert, auch mit neuen Zusätzen und Anmerkungen vermehret, von Johann Christoph Gottscheden. Statt einer Einleitung ist die Fontenellische Lobschrift auf Leibnitz von neuem über-etzt [von Louise Adelgunde Gottschedin]. 2 works in 1. Hannover und Leipzig: Försters und Sohns Erben, 1744. 8°. [xxiv], 64, 843, [52]; [II], xvi, 556, lxxx, [20] pp., with Engraved frontispiece por-trait and folding plate of the calculating machine. Contemporary vellum, early ink anno-tations to front pastedown and flyleaf, minor browning only, a very well-preserved copy (not ,the best possible', but pretty close).

\$ 3500.-

First Gottsched edition of the Théodicée - the standard German edition of the only large philosophical book published by Leibniz in his lifetime. Gottsched appends various short works by Leibniz, four of them in their first German translation. Included are the important essay on binary arithmetic, 'Rechnung mit null und eins', and the description of Leibniz's invention, the first calculating machine that could add, subtract, multiply and divide. PMM 177, Ravier 421. Bound after the Leibniz is a scarce related work by Joachim Böldicke (1704-1757), friend of G.F. Meier, correspondent of Euler, and commentator on Machiavelli, under the following main title-page: Abermaliger Versuch einer Theodicee, darinn von dem Ursprunge des Bösen in der besten Welt, der Güte, Weisheit und Gerechtigkeit Gottes, wie auch der Freyheit des Menschen dergestalt gehandelt wird. Berlin und Leipzig: Haude und Spener, 1746. The work is in five parts, paginated continuously, with subsequent title-pages showing the same place, publisher and date: 2) Fortsetzung des von Laurentius Valla angefangenen und von Leibnitz fortgeführten Gesprächs von der Freiheit oder der Gerechtigkeit Gottes bei dem Schicksale des Sextus, als die erste Beylage zum 'Abermaligen Versuch einer Theodicee'. 3) Einwürfe des Herrn Bayle wider die geoffenbarte Lehre vom Ursprunge und der Bestrafung des Bösen. Nebst der Beantwortung des Herrn von Leibnitz, und einer neuen Auflösung nach den Lehrsätzen des abermaligen Versuchs einer Theodicee: als die zweite Beylage zu dieser Theodicee. 4) Erweis, daß keine vollkommenern Gesetze der Glückseligkeit bey vernünftigen Creaturen möglich gewesen als diejenige, so wie in der wirklichen Welt antreffen. Nebst einer Ab-handlung dessen, was möglich oder unmöglich ist, und einer Erörterung der Frage, ob eine unbestimmte Freyheit bey Gottoder einer Creatur möglich seyn ist? Als die dritte Beylage zum abermaligen Versuch einer Theodicee. 5) Historische Einleitung in die Lehre von der Uebereinstimmung des Glaubens und der Vernunft, dem Ursprunge des Bösen, der besten Welt und der Freyheit des Menschen. Worinnen zugleich die Wolfischen Streitigkeiten aus des Hrn P. C. G. Ludovici Historie der wolf. Philosophie angeführet werden. Als die vierte Beylage zum abermaligen Versuch einer Theodicee.

**The Art of Writing – a Private Manual for the Bavarian King**

108

**[Manuscript]**

Vorschriften zur Erlernung der Calligraphie. German manuscript by unknown hand. [Bavaria, around 1820] quer-4°. 13 Bll. Pappbd. d. Zt., Rücken m. Etikett, etwas berieben u. besto-ßen, etwas fleckig. Innen sauber. Original Papercard boards.

\$ 1200.-

Manuscript dedicated to the Bavarian King Maximilian I. Joseph von Bayern, a manual (Anfangsgründe) to write properly in different styles and languages. Something a king needs to know. Maximilian I (1756 - 1825) was prince-elector of Bavaria (as Maximilian IV Joseph) from 1799 to 1805, king of Bavaria (as Maximilian I) from 1806 to 1825. Under the reign of Maximilian Joseph the Bavarian Secularization (1802-1803) led to the nationalisation of cultural assets of the Church. The Protestants were emancipated. In 1808 he founded the Academy of Fine Arts Munich. The city of Munich was extended by the first systematic expansion with the new Briener Strasse as core. In 1810 Max Joseph ordered construction of the National Theatre Munich in French neo-classic style. Anfangsgründe in die Schönschrift, beginnend mit der deutschen Kurrentschrift, darauf Fraktur, Alphabete mit Kapitalbuchstaben, diverse Kursivschriften und eine französische Schriftprobe. Am Schluß der kalligraphisch verzierte Name des Widmungsempfängers: Maximilianus unter der bayerischen Königskrone. Vorsatzpapier mit Wasserzeichen: FHF 1816. Maximilian I. Joseph (1756 - 1825) war bei Regierungsantritt im Jahre 1799 als Maximilian IV. zunächst Herzog von Bayern, Pfalzgraf bei Rhein, Herzog von Jülich und Berg sowie Kurfürst des Heiligen Römischen Reiches Deutscher Nation. Durch ein Bündnis mit dem napoleonischen Frankreich stieg er ab dem 1. Januar 1806 zum ersten König des Königreichs Bayern auf. Bei seinen Untertanen wurde er mit der populären Kurzform seines Namens „König Max“ genannt.

## A Famous Mathematician looking for a World Language

109

**Peano, Giuseppe**

De latino sine flexione. Principio de permanentia. [Off-Print from] Ex „Revue de Mathematiques, tomo 8, anno 1903. [Torino: Cavoretto, 1903] 8°. 14 pp. Without wrappers, as issued, little unrefresh.

\$ 690.-

First edition, Off-Print. In 1903 the Italian logician Giuseppe Peano, preceded in his ideas by Descartes and Leibniz, published in the „Revue de Mathématiques“ vol. 8, no. 3, at pages 74-83 the article „De Latino Sine Flexione“, later called Interlingua, a form of modern Latin without declensions particularly adapted for use in science. The principle behind Peano's Interlingua is that it is classical Latin with a minimum grammar. Inter-lingua is based on the idea that there exists an international vocabulary in the languages of Europe which suffices for most communication, specially for scientific communication. These are words that occur in at least three languages in similar forms and with the same meanings. By limiting the search just to the major European languages (English, French, German, Italian, Portuguese, Spanish and Russian) one can capture more than 99 % of the international vocabulary. The form by which words, roots, and affixes are to be standardized are the theoretical or historical prototypes for these from which their counterparts in the source languages of Inter-lingua are transformations according to the characteristics of those languages.

## Stage Designer of Mozart's Idemeneo – Some Unknown Capriccii



110

**Quaglio, Lorenzo von.**

24 prospectische neue Architectur-Compositionen [handwritten label on cover] [München / Munich, around 1801-02] quer-4°. 2 pages Prospectus, 24 engraved plates von C. Langlois, C. Schleich, F. X. Gebhard nach L. Quaglio. Loosely inserted in papercovered boards with silk binders. Strong and powerful impression on thick paper, wide margined. Only little stocked. Fine set.

\$ 9000.-

Complete as it is; not known so far - a series of stage designs. The present engraving series is a late work by the Munich court architect, decorator and painter Lorenzo von Quaglio, a work of high quality known in its entirety to all bibliographers. The series comprise of: ein „Indianischer Tempel“, die „Mördergrube“, eine „Mon-golische Grabstätte“, „Pompeische Ruinen“, „Asi-

ens Morgenröthe“, „Europens Mittag“, „Afrikas Abend“ und „Amerikas Nacht“, „Themistokles Athen“ sowie „Xerxes Persien“, et al. Lorenzo Quaglio (1730-1804) was a German stage designer of Italian extraction. He worked mainly in Mannheim and in Munich, where he designed the first production of Idomeneo. Bei der vorliegenden Stichserie handelt es sich um ein in seiner Gesamtheit allen Bibliographen unbekanntes, überaus qualitativvolles Spätwerk des Münchener Hofarchitekten, Dekorateurs und Malers Lorenzo von Quaglio (1730-1804, geadelt ca. 1780). Einzelne Blätter daraus sind verzeichnet bei Maillinger I, 1481 f. und Nagler XIII, 357, der eine „Sammlung von mehreren Blättern“ nach verschiedenen Stechern erwähnt. - Quaglio, der in seiner Zeit als Künstler hoch geschätzt worden ist, hat in Mannheim und München zahlreiche Bühnenbilder für Opern und Schauspiele entworfen. In der Kupferstichfolge, deren Thema exotische und mythologische Szenerien in den entsprechenden Architekturkulissen sind, zieht Quaglio offenbar eine Summe aus seinem Lebenswerk, indem er seine Erfahrungen auf dem Gebiet der Bühnendekoration mit der profunden Kenntnis antiker Architektur verbindet. Wie er selbst in zwei beiliegenden Anzeigenblättern für die Subskribenten (zur Entschuldigung für mehrfache Verzögerungen beim Erscheinen) schreibt, mangle es den meisten Kupferstichen seiner Zeit zu historischen und mythologischen Sujets an neuen Erfindungen im Bereich der Architektur. Meist seien es nur „Kopien wirklich existirender Sachen, wo öfters die idealistischen Zusätze für Wahrheit genommen werden“. Dagegen seien seine Zeichnungen, unter Berücksichtigung des jeweiligen Baugeschmacks und der Kostüme, von ihm „durchgehends neu erfunden und komponirt“.



## III

**[Spanish Fortification in the Bays-Bas]**

"La Architectura Militar". Manuscript in spanish, late 17th or early 18 century. The text in a neat italic hand with folding diagram in pen, ink and wash [385 x 280 mm], and 4 tables and 76 geometric diagrams and plans in the text. [ca. 1700] Folio [298 x 205 mm] 138 pp., [I, contents]. Near contemporary sheep, spine gilt in compartments, red morocco lettering-piece, some staining and a repaired tear to folding diagram, minor staining throughout, some wear to binding, especially to spine and extremities. A handsome fair copy with blindstamp to first pages.

\$ 6800.-

A manuscript treatise on military architecture, setting out its mathematical principles in a series of illustrated propositions. A short introduction justifies the status of military architecture as a mathematical discipline in its own right. This is followed by a glossary and twelve axioms explaining the principles of military fortification. The rest of the treatise, divided into twenty-two chapters, focuses on the geometric principles underlying the design of military fortresses built on level ground, and addresses such questions as the choice of artillery over musketry for lateral defence; the measurement of angles of artillery projection and lines of defence; and the identification of those aspects most vulnerable to artillery attack or storming. The author's arguments are supplemented by numerous diagrams and mathematical formulae. The author, who refers to his previous (and possibly unpublished?) treatises on trigonometry and on „machinas belicas“, disputes throughout his work the theories of the french military engineer Antoine de Ville (1596-1657), and occasionally those of the mathematicians Niccolo Tartaglia (1449-1557) and Samuel Marolois (1572-1627).- Provenance: Ioannis [John] Latour, ownership inscription on upper pastedown; John Vaughan inscription on reverse of folding diagram; Ex Libris: Macclesfield Library, Shirburn Castle, South Library.

## III2

**[Trade Catalogue]**

Illustrierter Catalog kirchlicher Gefässe und Geräte von Jacob Leser königl. und herzogl. Bayerischer Hofjuwelier und Hoflieferant. [Straubing, 1890] 4°. [2], 33 pp., [4] Original gilt printed cloth, fine copy.

\$ 600.-

A rare [first] trade catalogue by the goldsmith Leser in Bavaria, mainly known for his work for the church and the Bavarian kings. Der erste, reich illustrierte Katalog der Straubinger Firma Leser mit allen Arten von kirchlichen Gerätschaften. Die Firma wurde 1768 geründet und ist noch heute dort ansässig. Der prachtvolle Einband wiederholt die Ornamentik der Goldschmiedarbeiten im Innern.- not in COPAC or OCLC.

## III3

**Vennemann, Wolfgang [Photographer];**

Olden, Balder. Mdisi. Bibi. Safari [= Bananen - Frauen - Wanderfahrt; Bananas, Women, Touring]. 32 Afrikanische Bilder. [Text by Balder Olden, photographs by Wolfgang Vennemann] Berlin: Buchdruckerei Gebr. Mann und der Graphischen Anstalt Ganymed, 1932. Folio [365 x 305 mm] 13 3/4 x 11 1/2 inches. Portfolio consisting of pictorial boards with cloth spine and flaps. 16 pages of text bound in printed wrappers, together with 32 photogravure illustrations, each mounted on a sheet of heavy paper (each mount is numbered and fitted with a tissue guard), housed together in the portfolio. Fine condition, light rubbing to photogravure illustration on front cover, one tissue guard lost. Die Auflage beträgt 500 numerierte Exemplare, dies ist Nr. 275. (Impressum).

\$ 1400.-

First Edition, limited edition: one of 500 numbered copies, of a fine photo-book with photographs of african people. The impressive photographs look quite modern in aesthetics. In Suaheli the title meant: Bananas, Women, Wandering.- .- COPAC: no copies; OCLC: 6 copies [Philadelphia Museum Art, Art Inst. Chicago, Harry Ransom, Smithsonian, New York Public]

Interessantes Photo-Buch in „moderner Ästhetik“ mit kurzem Text von Balder Olden. Das Buch lebt von den Photographien des weitgehend unbekanntes Wolfgang Vennemann. Balder Olden (1882 - 1949 Montevideo, Uruguay) war ein deutscher Schriftsteller und Journalist. Olden absolvierte seine Schulzeit in Darmstadt, Regensburg und Wiesbaden und begann anschließend an der Universität Freiburg Geschichte, Literatur und Philosophie zu studieren. Parallel dazu versuchte Olden, sich durch Privatstunden auf den Beruf des Schauspielers vorzubereiten. Anlässlich eines Duells, das er einer Beleidigung seines jüdischen Glaubens wegen ausfocht, erlitt er eine Verletzung im Gesicht, welche eine dauernde Lähmung nach sich zog. Dadurch war ihm das Theater versperrt und Balder wählte nun den Beruf des Journalisten. Nach einem Volontariat bei der „Oberschlesischen Grenzzeitung“ in Beuthen und im Ullstein Verlag (Berlin) bekam Olden eine Anstellung bei einer Hamburger Zeitung, in der er für einige Zeit das Feuilleton betreute. In der Redaktion in Beuthen wurde Olden ein Kollege des später sehr erfolgreichen Schriftstellers Norbert Jacques. Später wechselte Olden nach Köln zur „Kölnischen Zeitung“, für die er als reisender Reporter einige Weltreisen unternahm. Zu Beginn des ersten Weltkriegs hielt sich Olden beruflich gerade in Deutsch-Ostafrika (Tansania) auf und meldete sich sofort als Freiwilliger zu den Kolonialtruppen. Den Krieg verbrachte er von 1916 bis 1920 in britischer Kriegsgefangenschaft. Aus der Kriegsgefangenschaft entlassen, kehrte Olden wieder nach Deutschland zurück und ließ sich in Berlin nieder. Hier soll er 1922 für einige Jahre verheiratet gewesen sein. Olden arbeitete die nächsten Jahre wieder als Journalist, seine Reisen wurde aber weniger und ab diesen Jahren machte er sich auch einen Namen als Kritiker. Sofort nach der Machtergreifung durch die Nationalsozialisten ging Olden nach Prag und von dort wurde er zwei Jahre später vertrieben. Olden ging nach Frankreich und ließ sich in Paris nieder. Dort wurde er im Sommer 1940 verhaftet und im Lager Audierne interniert. Mit Hilfe von Freunden gelang es ihm, im Winter 1940/41 zu fliehen und sich nach Marseille abzusetzen. Von dort konnte er dann im Frühjahr 1941 auf einem Schiff nach Argentinien entkommen. Nachdem er fast zwei Jahre in der Hauptstadt Buenos Aires gelebt hatte, ließ er sich 1943 in der Hauptstadt von Uruguay, Montevideo, nieder. Dort heiratete Olden 1944 Margarete Kershaw. Seine letzten Lebensjahre verbrachte Olden wieder in seinem Beruf als Journalist. In beiden Ländern setzte sich Olden sehr für die Belange deutscher Exilanten ein und war maßgeblich an deren Organisation beteiligt. [wikipedia] Wolfgang Vennemann, deutscher Fotograf, Afrika 1920er und 1930er Jahre, Westfront und Atlantikwall im Zweiten Weltkrieg

## One of the Earliest Pictures of a Diving Bell

II4

**Ufano, Diego.**

Tratado Dela [sic] Artilleria Yuso [sic] Della Platicado por el Capitan diego ufano en las Guerras de flandes. En Brusselas: en casa de Iuan Momarte impresor ... 1613. 4° [245 x 190 mm] [18], 423, [8] pp., with [54] etched plates Mamorierter Pappbd. d. 18. Jahrhunderts mit rotem R.schild, Rotschnitt, berieben u. bestoßen, R. gering restauriert. Innen vereinzelt fleckig, Tafeln tls. gebräunt, doch gutes Exemplar. ein handschriftl. Blatt beigegeben.

\$ 6600.-

Very rare first edition (with variant title-page) of Ufano's influential treatise, which was quickly translated into other languages and much copied and plagiarised (Norton's Gunner of 1628 for instance). According to Peeters-Fontainas, the engraved title has the date „1612“ which should be read as 1612 (not 1613 or 1617), but the last digit in this copy is definitely a 3 (as given in Cockle), implying that the engraved title was altered for later is-sues. Ufano was a captain of artillery and wrote from a practical standpoint, having been involved in engagements using cannons in northern France and the Low Countries. He describes the different sizes and manufacture of cannons and gives details of trajectory, although his calculations were later criticised by Blondel in his *Art de jeter les bombes* of 1683.- Cockle 684; Peeters-Fontainas 1328; Riling 78; Palau 342943. [Copies are rare on the market; a copy was sold at Christie's in 1977 and a copy was in Richard Ramer's catalogue 6-171 of 1992. The copy in the Macclesfield sale, Nr. 3824 was incomplete; estimated with 4500-6000 EUR]

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**[World Exhibition 1900]**

L'Exposition de Paris [1900], publiée avec la collaboration d'écrivains spéciaux et des meilleurs artistes. 3 Bde. Paris: Montgredien, [1900]. Folio. 2 Bll., 312 pp.; 2 Bll., 324 pp.; 2 Bll., 324 pp., [IV], 1 kl. Anz.-Bl., with more than hundred woodcut ill., 3 fold. plates, 115 teils farb. oder kolor. dpblgr. Taf. Fine copy in gilt-printed Original cloth. Illustrierte rote Orig. Lein-wdbde. mit Gold- u. Schwarzprägung, in Gold u. Farben lithogr. Vorderteile. der Orig.- Umschläge beigegeben. Nur minimal gebräunt, die dekorativen Einbände kaum berieben.

\$ 1900.-

Reich illustriertes Werk über die Pariser Weltausstellung von 1900. The Exposition Universelle of 1900 was a world's fair held in Paris, France, to celebrate the achievements of the past century and to accelerate development into the next. The style that was universally present in the Exposition was Art Nouveau. The exhibition lasted from 15 April until 12 November 1900. More than 50 million people attended the exhibition (a world record at the time), it turned a profit for the French government of 7,000,000 Francs. The fair included more than 76,000 exhibitors and covered 1.12 square kilometres of Paris. A number of Paris' most noted structures were built for the Exposition, including the Gare de Lyon, the Gare d'Orsay (now the Musée d'Orsay), the Pont Alexandre III, the Grand Palais, La Roche, and the Petit Palais. The first line of the Paris Metro also began operation to coincide with the Exposition. Although completed in just 18 months, it was nevertheless slightly late, taking its first paying passengers to the Ancien Palais du Trocadéro site on 19 July 1900. The Salle des Machines („Machines' Room“) was later turned into an indoor cycling track, the Vélodrome d'hiver, which became infamous during Vichy France. The Exposition Universelle was where talking films and escalators were first publicized, and where Campbell's Soup was awarded a gold medal (an image of which still appears on its label). At the Exposition Rudolf Diesel exhibited his diesel engine, running on peanut oil. Brief films of excerpts from opera and ballet are apparently the first films exhibited publicly with projection of both image and recorded sound. The Exposition also featured many panoramic paintings and extensions of the panorama technique, such as the Cinéorama, Mareorama, and Trans-Siberian Railway Panorama. The centrepiece of the Palais de l'Optique, was the 1.25-metre-diameter (49 in) „Great Exposition Refractor“. This telescope is the largest refracting telescope built. The optical tube assembly was 60 meters long and 1.5 meters in diameter and was fixed in place due to its mass. Light from the sky was sent into the tube by a movable 2-meter mirror. Photos of the Hampton Institute by Frances Benjamin Johnston, which were displayed in the Exposé nègre to demonstrate Afro-Americans' positive contributions to American society. The Paris Expo included a „Negro exposition“ (Exposé nègre), during which photos by Frances Benjamin Johnston, a friend of Booker T. Washington, of his black students of the Hampton Institute were presented. Partly organized by Booker Washington and Edward Du Bois, this exhibition aimed at showing Afro-Americans' positive contributions to American society. Unfortunately, at a time when lynchings were peaking, a Human Zoo diorama was also present at the exposition, entitled ‚Living in Madagascar‘. [wikipedia]