

Bibliography of the works of Sir Isaac Newton : together with a list of books illustrating his life and works / with notes by George J. Gray.

Contributors

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Royal College of Physicians of London

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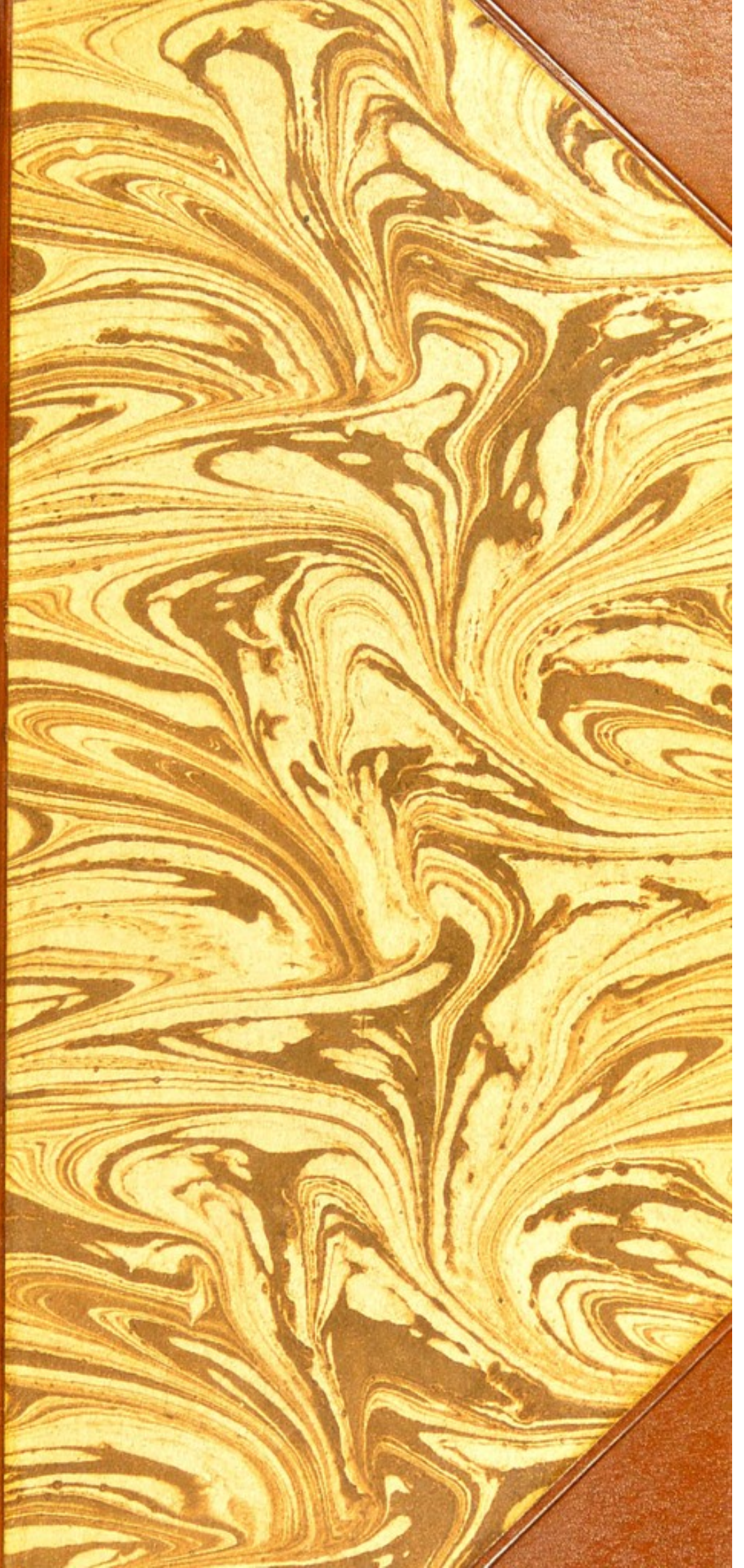
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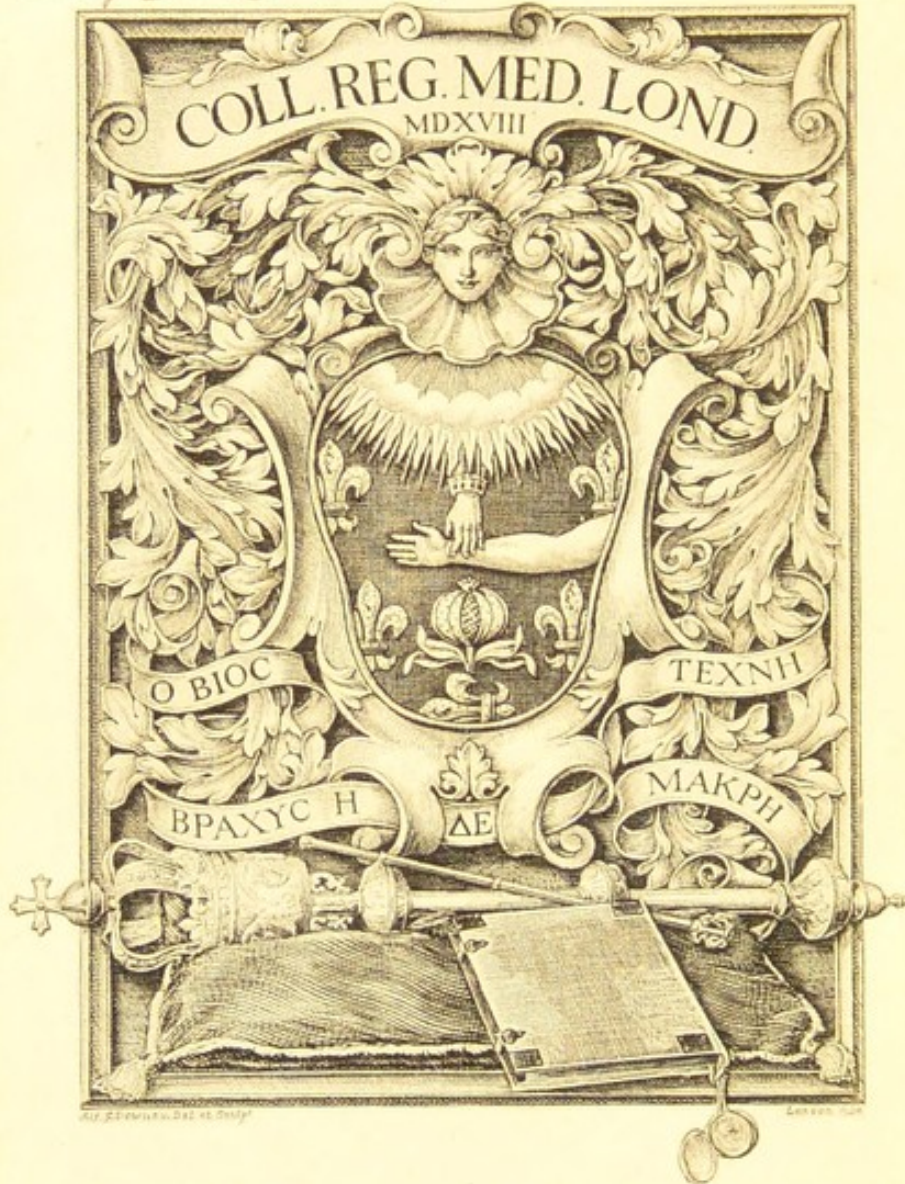
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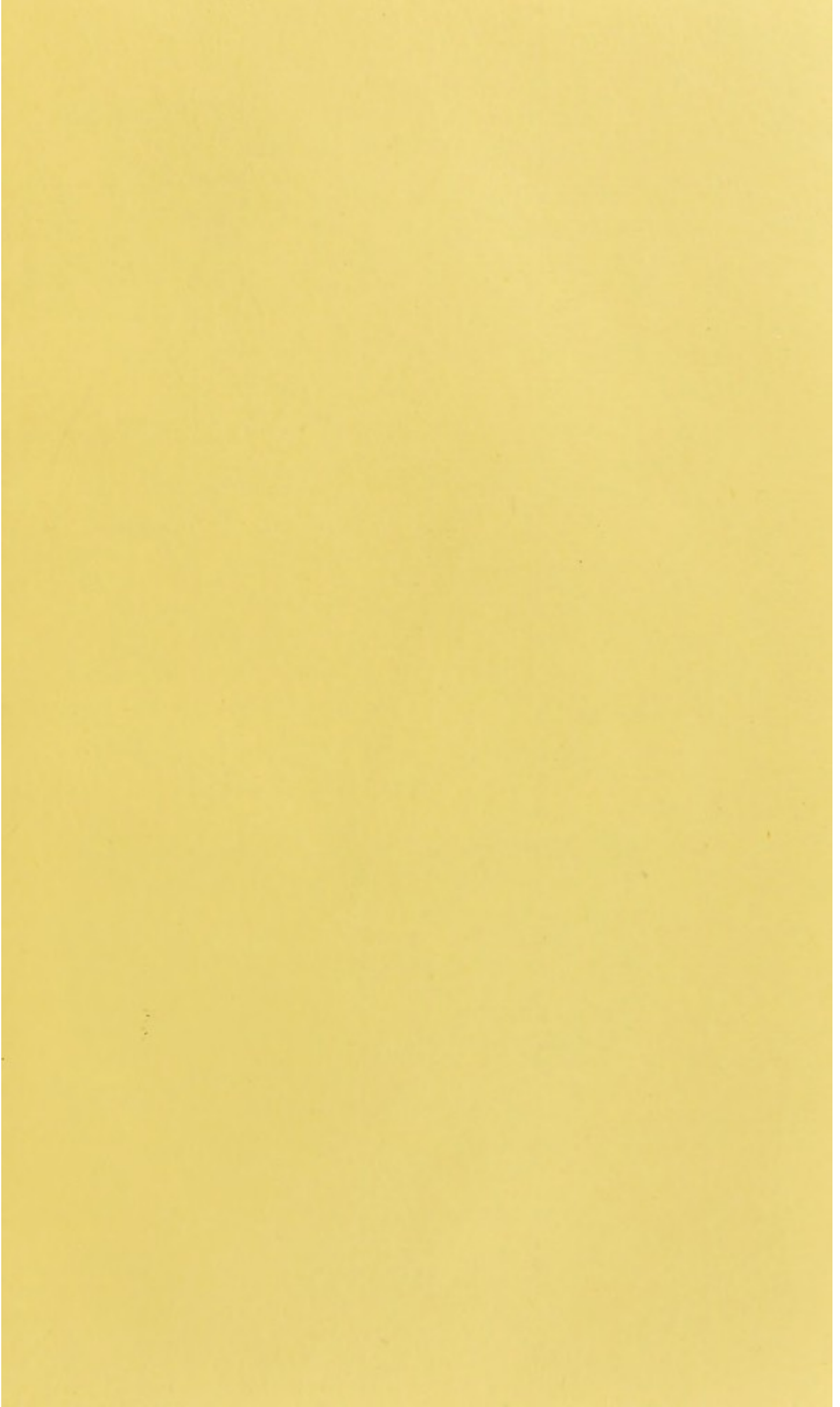




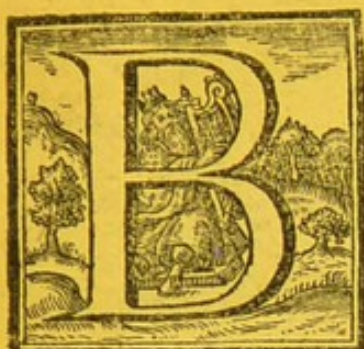


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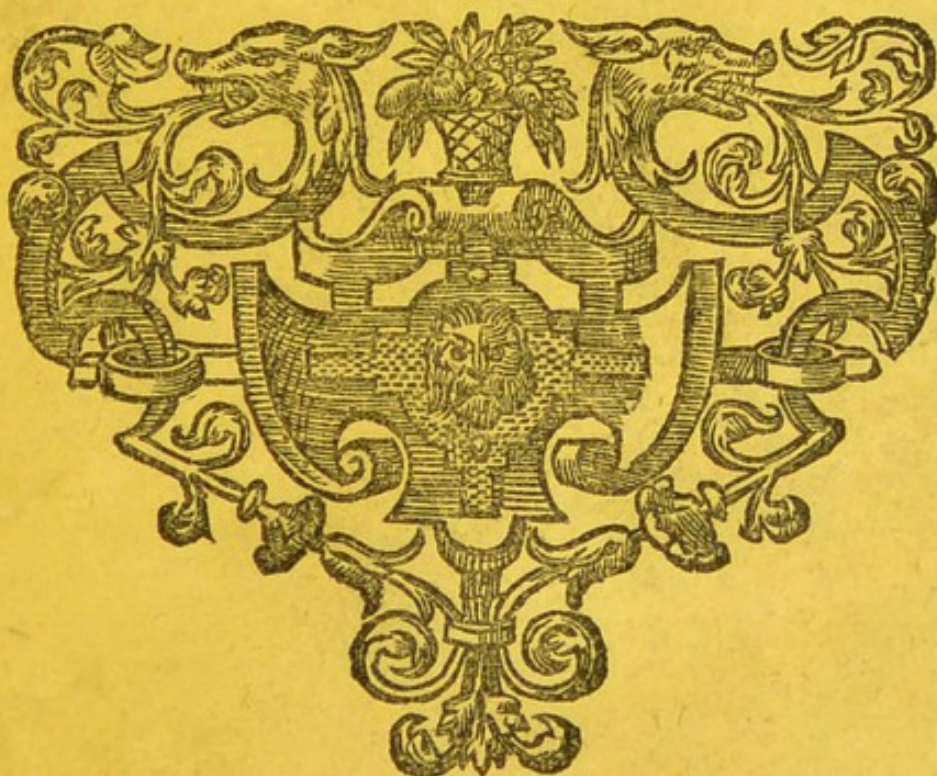


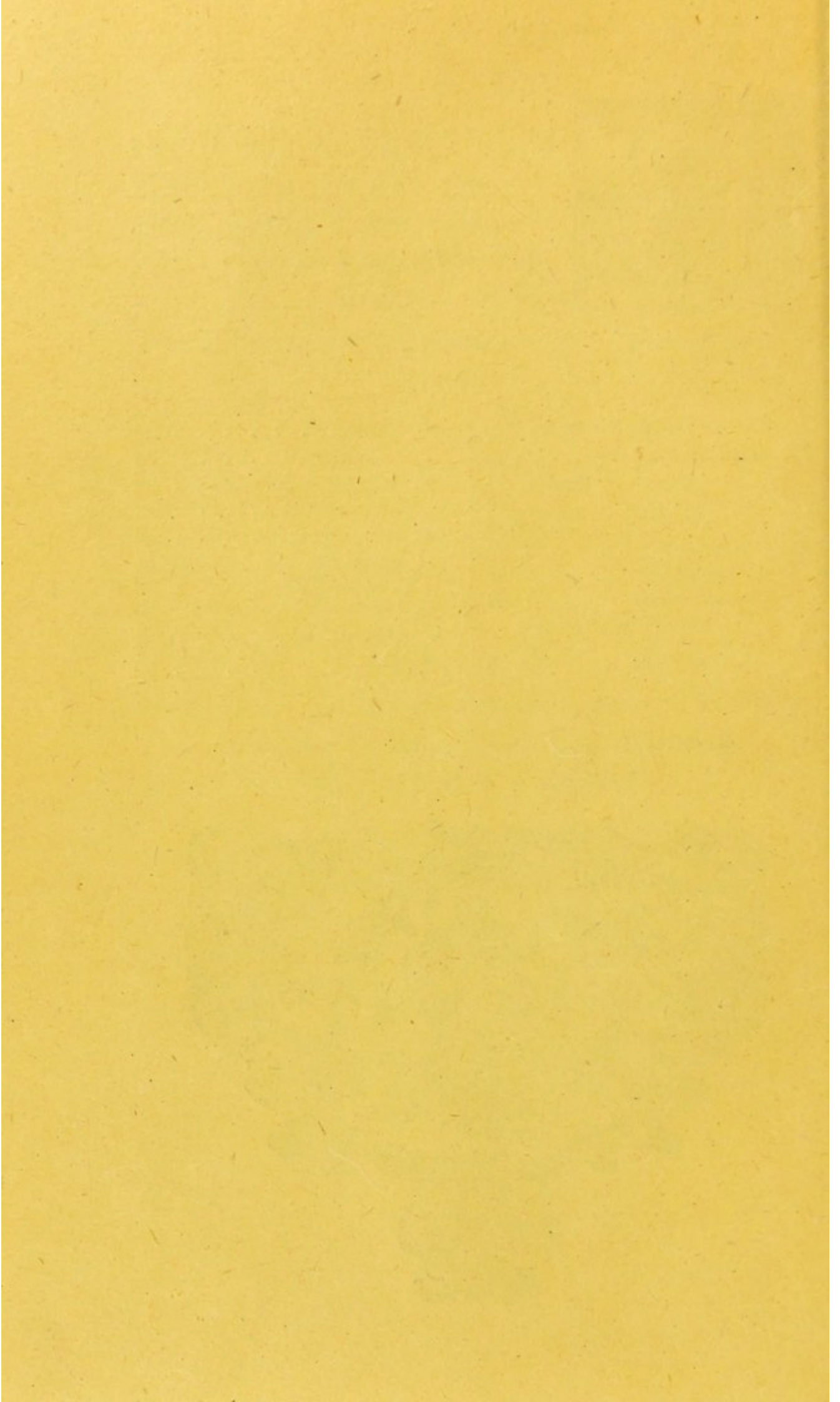
BIBLIOGRAPHY of the Works
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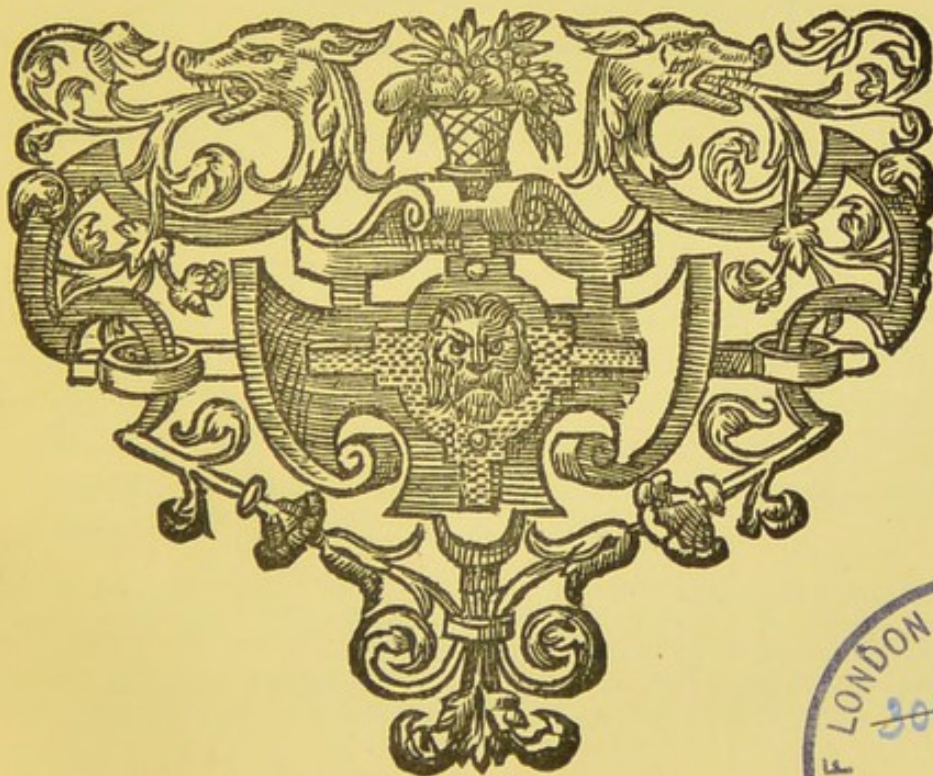
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WORKS OF SIR ISAAC NEWTON.

[Books marked * are described from copies that I have seen.]

I.

* *Isaaci Newtoni Opera quæ exstant omnia.* Commentariis illustrabat Samuel Horsley, LL.D., R.S.S., Reverendo admodum in christo patri Roberto episcopo Londinenses a sacris. 5 vols. 4to. 1779—1785. [1

Contents: Vol. I. (1) *Arithmetica Universalis.* (2) *Tractatus de Rationibus primus ultimusque.* (3) *Analysis per Æquationes numero terminorum Infinitas.* (4) *Excerpta quaedam ex Epistolis ad Series Fluxionesque pertinentia.* (5) *Tractatus de Quadratura Curvarum.* (6) *Geometria Analytica, sive, Specimina Artis Analyticæ.* (7) *Methodus Differentialis.* (8) *Enumeratio Linearum Tertii Ordinis.*

II. *Principiorum libri priores duo: De Motu Corporum.*

III. (1) *Principiorum liber tertius: De Systemate Mundi.* (2) *De Mundi Systemate.* (3) *Theoria Lunae.* (4) *Lectiones Opticae.*

IV. (1) *Optics.* (2) *Letters on various subjects in Natural Philosophy, published from the originals in the Royal Society.* (3) *Letter to Mr. Boyle on the Cause of Gravitation.* (4) *Tabulae Duæ, Calorum altera, altera Refractionum.* (5) *De Problematibus Bernouillianis.* (6) *Propositions for determining the Motions of a Body urged by true Central Forces.* (7) *Four Letters to Dr. Bentley.* (8) *Commercium Epistolicum, &c., cum recensione præmissa.* (9) *Additamenta Commercii Epistolici ex Historia Fluxionum Raphsoni.*

V. (1) *Chronology of Antient Kingdoms amended.* (2) *Short Chronicle from a MS. the property of the Rev. Dr. Ekins.* (3) *Observations upon the Prophecies of Holy Writ, particularly the Prophecies of Daniel and the Apocalypse of St. John.* (4) *An Historical Account of two Notable Corruptions of Scripture, in a Letter to a Friend.*

This is the only complete edition of Newton's works, and is now scarce. It is dedicated to the king; and contains the following papers by the Editor: (1) *Logistica Infinitorum;* (2) *Geometria Fluxionum, sive Additamentum tractatus Newtoniani de Rationibus Primus Ultimusque;* (3) *De Viribus Centralibus quæ rationem triplicatæ distantiarum centrarium inter se constanter servant.*

Isaaci Newtoni Opuscula Mathematica, philosophica, et Philologica, collegit J. Castillioneus. 8 vols. 4to. Laus. 1744. [2 Principia, 3 vols. ; Arithmetica Universalis, 1 vol. ; Opticae et Lectiones Opticae, 1 vol. ; Opuscula Mathematica, &c. 3 vols.]

II.

* Philosophiæ | Naturalis | Principia | Mathematica | Autore Is. Newton, *Trin. Coll. Cantab. Soc. Mathefeos* | Professore *Lucasiano*, & Societatis Regalis Sodali. | Imprimatur. | S. Pepys, *Reg. Soc. Praeses*. | Julii 5. 1686. | Londini. | Jussu *Societatis Regiæ* ac Typis *Josephi Streater*. Prostat apud | plures Bibliopolas. | Anno MDCLXXXVII. | [3

Collation: Title, Dedication to the Royal Society, Prefatio ad Lectorem, 3 ll. In viri praestantissimi D. Isaaci Newtoni opus hoece mathematico-physicum *Saeculi Gentisque nostrae Decus* egregium. *Edm. Halley* 1 l. + Principia pp. [1] to [510]. Signatures A—Zz, * *, Aaa—Oooo in 4's. Oooo, 4 (Errata) is sometimes bound after Halley's Verses. 1 Plate at p. 496 or just after Halley's Verses.

This is the *first edition*, and was published at 9s. or 10s. The collation here given is taken from two copies of the work. In the *Times* of July 30th, 1887, the writer of an article on the *Principia* quotes from a copy which, according to him, has a different imprint: "Printed by Joseph Streater, and sold by Samuel Smith at the sign of the Prince of Wales in St. Paul's Church-yard." The italics are mine; they shew the variation.

The publication of the *Principia* is a matter of historic interest, and it need only be said that its publication was due to Edmund Halley, who saw the work through the press, and paid all the expenses of its publication. The Royal Society was willing (and indeed passed a resolution) to publish the work, but was so largely in debt that Halley took the work upon his own hands.

* Philosophiæ | Naturalis | Principia | Mathematica. | Auctore | Isaaco Newtono, | Equite Aurato. | Editio Secunda Auctior et Emendatior. | Cantabrigiæ MDCCXIII. | [4

Title, Dedication to Royal Society, Auctoris Præfatio ad Lectorem, Maii 8, 1686. Auctoris Præfatio, Mar. 28, 1713, 4 ll. Editoris Præfatio, dated Maii 12, 1713, 8 ll. Index 1 l. + pp. 1—484 + Index Rerum Alphabeticus 4 ll. Sigs. a in 2, b & c in 4's, d in 2, B—Qqq in 4's, Rrr in 2.

Many alterations were made in this edition, the date "May 8, 1686" being added to the preface of the first edition. It was edited by Roger Cotes, who wrote the preface of 16 pages, and, at the urgent request of Dr. Bentley, added the "Index Rerum Alphabeticus." Halley's Verses were very much altered by Bentley in this and the following edition.

- * *Philosophiæ Naturalis Principia Mathematica*. Auctore Isaaco Newtono, Eq. Aur. *Editio tertia aucta & emendata*. Londini: Apud Guil. & John Innys, Regiæ Societatis typographos. MDCCLXXVI. [5

Collation: Royal Patent, hf. Title, Title, Dedication to the Royal Society, Halley's Verses, Newton's Prefaces to the first and second editions, Cotes' Preface, Newton's Preface to third edition, and Index. 17 ll + "Principia," pp. 1—530 + Index Rerum 3 ll. Sigs. 2 ll + a—c, B—Yyy in 4's. Portrait of Newton, aet 83, I. Vanderbank pinxt. 1725, Geo. Vertue, sc., 1726.

The portrait is not always in copies of this edition, so possibly was not issued with the greater number of the earliest copies. Large-paper copies are in existence, but very rarely turn up for sale.

This is the last edition revised by Newton. It is well known that, as stated by Newton in his preface, this edition was edited by Dr. Henry Pemberton, who received 200 guineas from Newton upon the completion of the work. It was Dr. Richard Bentley who provided the money for its publication, and received the profits.

- * — This edition was reprinted in facsimile for Profs. Sir William Thomson and Hugh Blackburn in 1871, but the portrait was not reproduced. Glasgow. 4to. [6

— Between the publication in England of the second and third editions an edition was published at Amsterdam in 1714. 4to. [7

- * — — *Editio Ultima, cui accedit Analysis per Quantitatum Series, Fluxiones ac Differentias cum enumeratione Linearum Tertii Ordinis*. Amstœlodami, sumptibus societatis, 1723. pp. 14 ll. + 484 + Index, 4 ll. + 6 ll. + 107. 4to. [8

- * *Philosophiæ Naturalis Principia Mathematica*. Autore Isaaco Newtono, Eq. Aurato. *Perpetuis Commentariis illustrata, communi studio* P. P. Thomæ Le Seur &

Francisci Jacquier. *Ex Gallicana Minimorum Familia, Matheseos Professorum* Genevæ. Typis Barrillot & Filii Bibliop. & Typogr. 1739-40-42. 3 vols. 4to. [9

Collation: Vol. I. hf. Title and Title; *Rerum Mathematicarum Studiosis, Philosophiæ Newtonianæ Interpretes*, dated "Romæ in Regio Conventu SS^æ Trinitatis, An. 1739." pp. v—viii; Newton's Dedication to the Royal Society, ix; Prefaces to 1st, 2nd, and 3rd editions, Roger Cotes' Preface, and Halley's Verses, xi—xxxiv; Index Caputum; Errata xxxv—xxxvi + pp. 1—548.

Vol. II. Title, Dedication to the Royal Society by Le Seur and Jacquier, 2 ll.; *Monitum*, dated from Rome, 1740, 1 l. + pp. 1—422.

Vol. III. *Pars I.* Title, Dedication to Cardinal Armando Gastoni de Rohan de Soubise, 2 ll.; *Monitum*, dated 1742, 1 l.; Le Seur et Jacquier *Declaratio*, editoris *monitum*, 1 l. + pp. 1—374. *Pars II.* Title; *Introductio ad Lunæ Theoriam Newtonianam*, iii—vii + pp. 375—677; Index, 678—703.

In addition to the *Principia*, the following works are printed in Vol. III. :

1. Daniel Bernoulli's *Traité sur le Flux et Reflux de la Mer*, p. 173.
2. C. MacLaurin's *De Causa Physica Fluxis et Refluxus Maris*, p. 247.
3. Euler's *Inquisitio Physica in causam Fluxus ac Refluxus Maris*, p. 283.

These three works gained the Prize given by the Royal Academy of Sciences in 1724 for resolving the Problem relating to the Motion of the Tides from the theory of gravity.

* — *Editio altera longè accuratior & emendatior.* Coloniae Allobrogium, Sumptibus Cl. & Ant. Philibert Bibliop. 1760. 3 vols. 4to. [10

With the exception of the following variations, this edition is printed and contains the same matter as the previous edition. Vol. III. *Pars I.* 4 ll. + pp. 1—374 + *Contenta* 375—6. *Pars II.* pp. 378—677 + Index 678—703.

* — *Editio Nova, summa cura recensita.* Glasguae: Ex prelo Academico, Typis Andreae et Joannis M. Duncan. Veneunt apud Lackington & Soc., &c., &c. 1822. 4 vols. Roy. 8vo. [11

"Lectori S. Typographi" dated "Ex æd. Acad. Glasg. Ipsionis Junii, 1822."

This edition was revised by J. M. F. Wright, who says that he has corrected errors in previous editions.

- * De Mundi Systemate liber Isaaci Newtoni opus diu integris suis partibus desideratum. Londini: Impensis J. Tonson, J. Osborn & T. Longman, T. Ward & E. Wicksteed, & F. Gyles. 1731. 4to. [12

Title; Newtoni Princip. Math. Lib. III. initio. III. IV. + pp. 1—108. Sigs. A in 2, B—O in 4's, P in 2. 2 plates.

De Morgan, in his *Budget of Paradoxes*, p. 83, says: "I greatly doubt that Newton wrote this book."

Abridgments and Portions of the "Principia."

- * Excerpta quædam e Newtoni Principiis Philosophiæ Naturalis, cum notis variorum (by Jebb). Cantabrigiæ, 1765. 4to. pp. x + 180. 12 plates. [13

- * Excerpta ex Principiis Naturalis Philosophiæ, cum annotationibus Thomæ Le Seur et Francisci Jacquier. 6 plates. Oxon. 1831. 8vo. [14

Contains Newton's Preface of May 8, 1686, and Roger Cotes' Preface.

- * Principia. Book I. Sections I.—III., with notes, &c., by W. Whewell 1846. 8vo. [15

Translations.

- * The Mathematical Principles of Natural Philosophy. By Sir Isaac Newton. Translated into English by Andrew Motte. To which are added, The Laws of the Moon's Motion, according to gravity, by John Machin, Astron. Prof. Gresh: and Secr. R. Soc. London: Printed for Benjamin Motte, at the Middle-Temple-Gate, in Fleet Street, 1729. 2 vols. 8vo. [16

Collation: Vol. I. Title + Dedication to Sir Hans Sloane by Motte, 2 ll. + Translations of Newton's Preface to first edition, and extracts from those to the second and third editions, and Cotes' Preface, 16 ll. + pp. 1—320. Sigs.: Title + A in 2, A and a, B—X in 8's.

Vol. II. Title + pp. 1—393 + Index, 7 ll. + Appendix, pp. i—viii + 1—71 + Errata. Sigs.: Title, B—Cc in 8's, Dd in 3, a in 4 + A—D in 8's, E in 4. Two folding tables opposite pp. 352 and 357.

- * The Mathematical Principles of Natural Philosophy. By Sir Isaac Newton. Translated into English by Andrew Motte. To which are added (1) Newton's System of the World; (2) A Short Comment on, and Defence of the Principia, by W. Emerson; with (3) the Laws of the Moon's Motion according to Gravity, by John Machin. *A New Edition*, (with the Life of the Author, and a Portrait, taken from the Bust in the Royal Observatory, at Greenwich) carefully revised and corrected by W. Davis, author of "Treatise on Land Surveying," "Use of the Globes"; Editor of the "Mathematical Companion," &c., &c. London: Printed for H. D. Symonds, No. 20, Paternoster Row. 1803. 3 vols. 8vo. [17

Collation: Vol. I. Portrait, J. Allen delint., E. Scriven, sculpt, Title, Dedication by Davis, Preface by Davis, Motte's Dedication, Newton's Preface to first edition and extracts from those to the second and third editions, Cotes' Preface, and a Life of Newton. pp. lx + 1—211 + Index to Vol. I. 4 pp. Sigs. a in 4, b—d in 8's, e in 2, B—O in 8's, P, Q in 2's. 25 plates.

Vol. II. Title + pp. 1—321 + Index, 10 pp. Sigs.: Title + B—X in 8's, Y in 4, Z in 2. 19 plates and 1 folding table at p. 300.

Vol. III. Title, Contents of System of the World, i—vi + 1—231. Sigs.: Title + A in 2, B—P in 8's, Q in 4. 3 plates.

- * — An edition of Motte's Translation with the "System of the World" was published with a Life by N. W. Chittenden. New York [1846]. pp. 581. [18

- * Mathematical Principles of Natural Philosophy. Translated and illustrated with a Commentary by R. Thorp. Vol. I. [Book I.] London, 1777. 4to. pp. lviii + 360. 22 plates. [19

Book I. was all that appeared.

- Second edition [new title only]. London, 1802. 4to. [20

The Dedication to the Duke of Northumberland and the list of Subscribers' names are omitted.

- * A Treatise of the System of the World. By Sir Isaac Newton. Translated into English. London, 1728. 8vo.

Printed for F. Fayram at the South Entrance under the
Royal Exchange, 1728. [21

8vo, pp. xxiv + 154 + errata. 2 plates.

Qy. Translated by Motte. Reprinted with Motte's Translation of Newton's
Principia, 1803; the preface was not reprinted.

* Principia, Book I. Sections I—III., in English with notes and
illustrations by John Carr, 1821, 8vo. Second Edit.,
1829. 8vo. [22

* — — — with notes, examples, and deductions by J. M. F.
Wright. Cambridge, 1830. Roy. 8vo. [23

* — — — & IX. & XI., with an Appendix, by J. H. Evans,
3rd edit., 1843. 4th, 1855. 5th, edited by P. T. Main,
1871. [24

— — — — — and part of VII., with a preface on a geometrical
course, and on the atomic matter, and the laws of motion,
by Cooke. Oxford, 1850. 8vo. [25

* — Bk. I. Sect. I.— III. with notes and illustrations and a
collection of Problems, by Percival Frost, 1854. 2nd
edit., 1863. 3rd, 1878. 4th, 1883. [26

Illustrations :

Addison. Defence of the Newtonian Philosophy. In Fonte-
nelle's Plurality of Worlds, trans. Wm. Gardiner, 1757.

[27

This Oration was spoken in the Theatre at Oxford July 7, 1693.

* Bentley, Richard. Correspondence [edited by Christopher
Wordsworth]. 2 vols. 1842. [28

250 copies printed. Contains letters from Bentley to Newton and Cotes about
the second and third editions of the Principia; also his correspondence with Newton
on some points in that work.

Boscovich, R. J. De Solis ac Lunae defectibus libri V.,
versibus pertractati, Astronomiae Synopsis et Theorica
Luminis Newtoniana. 8vo. Venetiis, 1761. [28a

* Brougham, Henry Lord and E. J. Routh. Analytical View
of the Principia. 8vo. 1855. [29

- * Caille, N. Louis de la. Elements of Astronomy, deduced from Observations, and demonstrated upon the Mathematical Principle of the Newtonian Philosophy. Trans. by John Robertson. 8vo. 1750. [30]
- * Castel, L. B. Le Vrai Systeme de Physique générale de Newton exposé et analysé en parallele avec celui de Descartes ; à la portée du commun des Physiciens. 4to. 1743. pp. 520. 3 plates. [31]
- Chastelet, Mme la Marquise du. Principes mathématiques de la philosophie naturelle. 2 vols. 4to. Paris, 1756. [32]
- * Clarke, John. Demonstration of some of the principal sections of Sir I. Newton's principles of Natural Philosophy. 8vo. 1730. [33]
- D***, l'Abbé. Reflections sur la Physique moderne, ou la Philosophie Newtonienne comparée avec celle de Descartes. 8vo. Paris, 1751. [34]
- D'Alembert, J. Le Rond. Recherches sur la Précession des Equinoxes et sur la Nutation de l'axe de la Terre dans le Systême Newtonien. Plates, 4to. Paris, 1749. [34a]
- Desaguliers, J. T. The Newtonian System of the World, the best model of government, an allegorical poem, &c. 4to. 1728. [35]
- * Ditton, Humphrey. General Treatise on the Laws of Nature and Motion, with their Application to Mechanics ; also the Doctrine of Centripetal Forces and Velocities of Bodies, describing any of the Conick Sections, being a Part of the great Mr. Newton's Principles. 8vo. 1705. [36]
- * Domckio, Petro. Philosophiae Mathematicae Newtonianae Illustratae. Plates. 2 vols. 8vo. 1730. [37]
- * Easy and Pleasant Introduction to Sir I. Newton's Philosophy. With an Essay on the Advancement of Learning, by J. Ryland. Plates. 2nd edit., 1772. 12mo. [38]

- * Emerson, Wm. A Short Comment on Sir I. Newton's Principia. 8vo. 1770. [39
 ** Printed in Motte's Translation of Newton's Principia 3 vols. 1803.
- Feller, F. X. de. Observationes philosophiques sur le Systeme de Newton, le Mouvement de la Terre et la Pluralité des Mondes. 1771. [40
- * Ferguson, Jas. Astronomy explained upon Newton's Principles. 4th edit., 1711. 5th edit., 1772. [41
- * — — with Notes and Supplementary Chapter by David Brewster. 2 vols. 8vo. 1811. 2nd edit., 1821. [42
- Gamaches, Etienne Simon de. Astronomie physique, ou principes généraux de la Nature appliqués au mécanisme astronomique, et comparés aux principes de la philosophie de M. Newton. 4to. Paris, 1740. [43
- * Glaisher, J. W. L. The Bi-centenary of Newton's Principia. An Address delivered in Trinity College Chapel, April 19, 1888. [*Cambridge Chronicle* April 20, 1888.] [44
 Will also appear in *Nature*.
- Gordon, George. Remarks upon the Newtonian Philosophy; wherein it is proved to be false and absurd. 12mo. 1719. [45
- * Gravesande, G. J. Philosophiæ Newtonianæ Institutiones. Plates. 12mo. Lugd. Bat., 1723. [46
- * — Physices elementa Mathematica, experimentis confirmata. Sive Introductio ad Philosophiam Newtonianam. Plates. 2 vols. 4to. Leidaë, 1742. [47
- — Translated by J. T. Desaguliers. 33 plates. 2 vols. 8vo. 1720. 2nd edit., 1 vol. 8vo. 1721. [48
- * Gregory, David. Astronomiæ Physicæ et Geometricæ Elementa. Folio. Oxon., 1702. [49

- * Gregory, J. C. Notice concerning an autograph MS. by Sir I. Newton, containing some notes upon the Third Book of the Principia. (Royal Society of Edinburgh Transactions, March, 1829.) 4to. 1831. [50]
- Hartseker, Nich. Recueil de plusieurs pieces de Physique où l'on fait principalement voir l'Invalidité du Systeme de M. Newton. 12mo. Utrecht, 1722. [51]
- Jadelot, l'Abbe. Mécanisme de la Nature ; ou Systeme du Monde, fondé sur les Forces de Feu ; précédé d'un Examen du Systeme de Newton. 8vo. 1787. [52]
- * Keill, John. Introductio ad Veram Physicam, seu lectiones physicae habitae Acad. Oxoniensis, 1700. 8vo, 1701. 2nd edit. with Additions, 1705. 3rd, 1715. [53]
- * — — Introduction to Natural Philosophy. 8vo. 1720. 3rd edit., 1733 [54]
- Ludlam, Wm. Essay on Sir Isaac Newton's second Law of Motion. 8vo. 1780. [55]
- * MacLaurin, Colin. Account of Sir Isaac Newton's Philosophical Discoveries. Published by P. Murdock. Plates, 4to, 1748. 2nd edit., 8vo, 1750. 3rd edit., 8vo. 1775. [56]
- * Martin, Benjamin. Introduction to the Newtonian Philosophy. 8vo. 1765. [57]
- * — Philosophia Britannica ; or, a complete System of the Newtonian Philosophy. 3 vols. 8vo. 1759. [58]
- Panegyrics of the Newtonian Philosophy. 1754. [59]
- Martin, George. Examination of the Newtonian Argument for the Emptiness of Space. 8vo. 1740. [60]
- * Mayer, Tobia. Theoria Lunae juxta systema Newtonianum. 4to. 1767. [61]

Mayer's widow in 1770, received the reward of £3000 pounds from the Board of Longitude for these tables.

- Monboddo, Lord. Ancient Metaphysics, containing an Examination of Sir Isaac Newton's Philosophy. 4to. 1779. [62]
- * Newton, Thos. An Illustration of Sir I. Newton's Method of Reasoning by prime and ultimate Ratios, comprehending the first section of his Principia, and as much of the second and third as is necessary to explain the Motions of the heavenly Bodies. 8vo. 1805. [63]
- Paciaudi, P. M. Intorno a Principi Newtoniani. [In Miscellanea di varie operette, 8 vols.] Venezia, 1740-4. [63a]
- Parkes, W. Newton refuted; a geographical, nautical, mechanical and mathematical view of the Universe. 8vo. 1804. [64]
- * Pemberton, Henry. A View of Sir Isaac Newton's Philosophy. 4to. 1728. [65]
- * * The Editor of the Third Edition of the *Principia*.
- * Rigaud, S. P. Historical Essay on the first publication of Sir I. Newton's Principia. 8vo. Oxon., 1838. [66]
- * Robertson, Abram. Elements of Conic Sections deduced from the Cone, an Introduction to the Newtonian Philosophy. 8vo. 1818. 2nd edit., 8vo, 1825. [67]
- Robinson, Christopher. View of Sir Isaac Newton's Method for comparing the Resistance of Solids. 8vo. 1734. [68]
- * Rohault, Jas. System of Natural Philosophy, illustrated with Dr. Samuel Clarke's Notes taken mostly from Sir I. Newton. Translated by John Clarke. 3rd edit., 2 vols. 8vo. 1735. [69]
- Sarmiento, Jacob de Castro. Theorica verdadeira das mares conforme a philosophia de Cav. I. Newton; a que se ajunta huma relacam de vida deste philosopho, e a demonstraçem de que a Lud se retem no seu orbe pela força de gravidade. 4to. Londres, 1737. [70]

- * Saunderson, Nicolas. *Method of Fluxions, containing an Explanation of the principal Proposition of Sir I. Newton's Philosophy.* 8vo. 1756. [71]
- * Stevenson, Richard. *Newton's Lunar Theory exhibited analytically.* 8vo. Cambridge, 1834. [72]
- Theology and Philosophy in Cicero's Somnium Scipionis explained; or a brief attempt to demonstrate that the Newtonian System is perfectly agreeable to the Notions of the wisest ancients, &c.* 8vo. 1751. [73]
- * Voltaire. *Elements of Sir I. Newton's Philosophy. Translated and Revised by John Hanna.* Plates. 8vo. 1738. [74]
- *Response à toutes les Objections principales fait en France contra la Philosophie de Newton.* 8vo. Amsterdam, 1739. [75]
- * Whewell, Wm., Newton and Flamsteed. *Remarks on an Article in No. 109 of the Quarterly Review.* 8vo. 1836. [76]
- * — — *To which are added two letters, occasioned by a note in No. 110 of the Review.* 8vo. 1836. [77]
- * — *On the Free Motion of Points, and on Universal Gravitation, including the principal propositions of Books I. and III. of the Principia.* 8vo. 1832. [78]
- * — *Introduction to Dynamics, containing the Laws of Motion and Sections 1—3 of the Principia.* 8vo. 1832. [79]
- Whiston, W. *Praelectiones physico-mathematicae; sive Philosophia Newtoni mathematica illustrata.* 8vo. 1710. [80]
- * — *Sir I. Newton's mathematick philosophy more easily demonstrated, with Dr. Halley's account of Comets illustrated.* 8vo. 1716. [81]
- *Sir Isaac Newton's Corollaries from his Philosophy in his own words.* 4to & 8vo. 1727. [82]

- * Wright, J. M. F. A Commentary on Newton's Principia. With a Supplementary Volume. 2 vols. roy. 8vo. 1828. [83
- W[right], R. An Humble Address to the Commissioners appointed to judge of all performances relating to the Longitude; wherein it is demonstrated from Mr. Flamsteed's Observations, that by Sir I. Newton's theory of the Moon, as it is now freed from some errors of the press, the longitude may be found by land and sea, either night or day, when the Moon is visible, and in proper weather, within very few miles of certainty. 4to. London, 1728. [84
- Young, Robert. Examination of the third and fourth definitions of the first book of Sir I. Newton's Principia, and of the three Axioms or Laws of Motion. 4to. 1787. [85

III.

- * Opticks, | or, a | Treatise | of the | Reflexions, Refractions, | Inflexions, and Colours | of | Light. | Also | Two Treatises | of the | Species and Magnitude | of | Curvilinear Figures. | London, | Printed for Sam. Smith, and Benj. Walford, | Printers to the Royal Society, at the Princes Arms in | St. Paul's Church-yard. MDCCIV. | 4to. [86

Collation: Title, Advertisement, 2 ll. + pp. [1]—[144] + [1]—[211].
Sigs. Title + A, A—S, Aa, Bb, Dd—Ddd in 4's Eee in 2. 19 plates.

This is the first edition. Newton in the *Advertisement* says, "Part of the ensuing Discourse about Light was written at the desire of some gentlemen of the Royal Society, in the year 1675, and then sent to their Secretary, and read at their meetings, and the rest was added about Twelve Years after to complete the Theory; except the Third Book and the last Proposition of the Second, which were since put together out of scattered papers. To avoid being engaged in Disputes about these matters, I have hitherto delayed the Printing, and should still have delayed it had not the importunity of Friends prevailed upon me."

The Two Treatises attached to this edition are :

1. Enumeratio Linearum Tertii Ordinis.
2. Tractatus de Quadratura Curvarum.

They were omitted from the other editions of the *Opticks*. It will be noticed that Newton did not attach his name to this edition, only the initials "I. N." at the end of the *Advertisement*.

- * *Opticks*: or a Treatise of the *Reflections, Refractions, Inflections* and *Colours* of Light. *The Second Edition with Additions*: By Sir Isaac Newton. Knt. London, Printed for W. and J. Innys, Printers to the Royal Society at the Princes Arms in St. Paul's Church-yard, 1718. 8vo. [87
Collation: Title, Advertisement, [to 1st edit. and a new one for this edition]. Corrigenda 4 ll. + pp. 1—382. Sigs. A in 4, B to Bb in 8's. 12 plates.

In this edition Newton reprints the *Advertisement* to the First Edition, and adds the date April 1, 1704. The new *Advertisement* for this edition is dated July 16, 1717.

"In this Second Edition, I have omitted the Mathematical Tracts published at the end of the former edition, as not belonging to the subject, and at the end of the Third Book I have added some questions." The plates for this edition were re-engraved to suit the new form of the work.

- * — *The Third Edition*, corrected. London: Printed for William and John Innys at the West End of St. Pauls, 1721. 8vo. [88

With this slight variation in the imprint, this edition is the same as the second.

- * — *The Fourth Edition*, corrected. London: Printed for William Innys at the West End of St. Paul's, 1730. 8vo. [89

Collation: Title, Advertisements to 1st 2nd & 4th editions 4 ll. + pp. 1—382. Sigs. A in 4, B to Bb in 8's. 12 plates.

"This new edition is carefully printed from the Third Edition, as it was corrected by the Author's own hand, and left before his death with the Bookseller. Since Sir Isaac's *Lectiones Opticae* are lately printed, it has been thought proper to make at the bottom of the page several citations from thence, where may be found the Demonstrations which the Author omitted in these *Opticks*."—*Advertisement*.

No other editions of the *Opticks* in English appeared except that printed in Newton's Works, Horsley, Vol. IV.

Translations:

- * *Optice*: sive de Reflexionibus, Refractionibus, Inflexionibus & Coloribus Lucis Libri Tres. Authore Isaaco Newton, Equite Aurato. Latine reddidit *Samuel Clarke*, A.M. Reverendo admodum Patri ac Dno. Joanni Moore Episcopo Norvicensi a Sacris Domesticis. Accedunt Tractatus duo ejusdem Authoris de Speciebus & Magnitudine Figurarum Curvilinearum, latine scripti. Londini:

Impensis Sam. Smith & Benj. Walford, Regiae Societatis
Typograph. ad Insigna Principis in Cœmeterio D. Pauli.
MDCCVI. [90

Collation: Title, Prefatio Interpretis [S.C.], Authoris Monito ad
Lectorem, Errata, Corrigenda & Addenda 7 ll. + 1—348.
Sigs. A in 4, b in 2 + 1 + A—Oo in 4's, Pp in 1, Qq—Xx in
4's, Yy in 1. 7 plates.

Sir Isaac Newton gave Clarke £500 for this Translation of his *Optics*. Abra-
ham De Moivre revised the work.

* — Editio Secunda, auctior. pp. xii. + 415. 4to. 1719. [91
As in the Second English Edition, the two Treatises are not reprinted.

* — Editio Novissima. 4to. Lausannae et Genevae, 1740. [92
Title + Dedication to John Bernoulli, by Marcus-Michael Bousquet,
April 1, 1740 pp. i—vii; Præfatio Interpretis viii—xi;
Authoris monito prior et altera ad lectorem, 1704, 1717, xii
—xv; Bibliopola Lectori s. xv—xvi; Synopsis librorum
xvii—xxxii & pp. 1—363 + 1, errata. 12 plates.

* Optice libri tres, accedunt ejusdem Lectiones Opticae, et
opuscula omnia ad lucem et colores pertinentia. Editio
altera. 4to. Patavii, 1773. [93

* — Traduite par P. Coste, sur la seconde ed. Angloise.
Seconde Ed. Plates. Paris, 4to. 1722. pp. 10 ll. + pp. 595. [94

A French Translation by Marat, published by Nich. Beauzée.
2 vols. 8vo. Paris, 1787. [95

Optical Lectures:

* Optical Lectures Read in the Publick Schools of the Univer-
sity of Cambridge, *Anno Domini*, 1669. By the late Sir
Isaac Newton, then Lucasian Professor of the Mathe-
matics. Never before Printed. Translated into *English*
out of the original *Latin*. London: Printed for Francis
Fayram, at the South Entrance of the *Royal Exchange*.
M. DCC. XXVIII. 8vo. [96

Collation: Title, Preface [by the translator], London, June 29,
1727, pp. iii—xii. Errata unpagged; Opticks pp. 1—212.
Sigs. A in 6, B—O in 8's, P in 2. 13 plates at pp. 18,

32, 54, 72, 86, 100, 114, 122, 142, 160, 178, 196, 213, each numbered.

“It was as long ago as the year 1666, when Sir Isaac Newton first found out his Theory of Light and Colours. Upon Dr. Barrow’s resigning to him the Professorship of the Mathematicks at Cambridge, he made A. 1669, the Discovery the Subject of his publick Lectures in that University. In 1671 he began to communicate it to the world. . . . About the same time he intended to publish his Optical Lectures, wherein these Matters were handled more fully; together with a Treatise of Series and Fluxions. But the Disputes, which were occasioned by what he had already suffered to come abroad, deterred him from the design. . . . His friends could not prevail upon him to print his book of Opticks until the year 1704. . . . The present treatise is a faithful translation of a very correct copy, taken from the Latin Original, as it was read in 1669 . . . and at the bottom of the pages we have added here and there some very short remarks.”—*Preface*.

* *Lectiones Opticæ in Scholis publicis habitæ*, 1669—71. 4to. Londini, 1729. pp. xii + 291 + Addenda 5 pp. [97]

“The MS. from which the latin edition was printed was that which had been given by Newton himself to David Gregory, but after the edition had been printed, the editor learned that a more perfect MS. containing several notes and emendations by Newton had been presented to the University of Cambridge. These emendations were therefore printed at the end, and Bp. Horsley has included them.”
Sir D. Brewster.

[Printed with *Optices libri tres*, 1773.]

Illustrations :

* Airy, Sir G. B. On a remarkable modification of Newton’s Rings. 4to. 1831. [98]

* — On the Phenomena of Newton’s Rings which formed between two Transparent substances of different refractive powers. Plate. 4to. 1832. [99]

* Algarotti, Count Francesco. *Il Newtonianismo per le dame, ovvero dialoghi sopra la luce, e i colori*. 4to. Napoli, 1737. [100]

* — *Theory of Light and Colours*, translated from the Italian (by Mrs. Eliz. Carter). 2 vols. 12mo, 1739, again 2 vols. 12mo, 1742. [101]

* — *Philosophy of Sir Isaac Newton explained, in six dialogues on Light and Colours* [translated by Mrs. Eliz. Carter]. 12mo. Glasgow, 1752. [102]

[Courtivron, G.] *Traité d’Optique où l’on donne la théorie de la lumière dans le système Newtonien*. 4to. Paris, 1752. [103]

- Gautier d'Agoty, Jacques. Chroa-génésie ou génération des couleurs contre le système de Newton. 12mo. Paris, 1749. [104]
- *Φωπωφυσις χροαγγεγενεσις* de optice errores Isaaci Newtoni demonstrans. 8vo. Londini, 1750. [105]
- Nouveau système de l'univers, sous le titre de Chroa-Génésie ou critique des prétendues découvertes de Newton [with a Supplement]. 3 parts in 2 vols. 12mo. Paris, 1750—1. [106]
- Gonnella, Tito. Opuscoli Mathematici (1) di alcuni perfezionamenti del telescopio Newtoniano, &c. 4to. Firenze, 1841. [107]
- * Gregory, Dr. James. Elements of Catoptrics and Dioptrics, translated by Wm. Browne. *The Second Edition*, to which is added, An Appendix by J. T. Desaguliers, containing an Account of the Reflecting Telescopes; and of the Inventors, Improvers, and Imitators of them, till they were brought to perfection by John Hadley. With original Letters which passed between Sir Isaac Newton and Dr. James Gregory relating thereto. Now first published. 8vo. 1735. [108]
- The first edition of this work did not contain the Letters between Gregory and Newton.
- * Griffith, G. On the Formation of a Pure Spectrum by Newton. British Association Report, 1885. [109]
- * Herschel, Wm. New Observations concerning the colours of thin transparent bodies, shewing these phenomena to be inflections of light, and that the Newtonian fits of easy transmission and reflection have no existence. 8vo. London, 1800. [110]
- * Herschel, Sir J. F. W. On a certain remarkable instance of deviation from Newton's Scale in the Tints developed by Crystals, with one axis of Double Refraction, on exposure to Polarised Light. 4to. 1820. [111]

- [Jordan, C. W.] Observations of Newton concerning the inflections of light accompanied by other observations differing from his, and appearing to lead to a change in his theory of Light and Colours. 8vo. London, 1799. [112]
- * [Lardner, Dionysius.] Account of Newton's Optics. L. U. K. pp. 64. 1829—1830. [113]
- Leprince, H. S. Nouvelle chroagénésie, ou réfutation du traité d'Optique de Newton. 1^{re} partie. 8vo. Paris, 1819. [114]
- Lovett, R. The Reviewers Reviewed: being a reply to the animadversions of the Monthly Review on a late pamphlet, entitled "Sir Isaac Newton's Æther realized." 8vo. 1760. [115]
- Mollweide, C. B. Demonstrationem novem propositionis, quæ theoriæ colorum Newtoni fundamenti loci est exhibit. 4to. Lipsiæ, Nov. 2, 1811. [116]
- Reade, Joseph. Critical Remarks on Sir Isaac Newton's Opinions on Colours, &c., in experimental Outlines for a new Theory of Colours, Light, and Vision. 8vo. Dublin, 1816. [118]
- Robinson, Bryan. Dissertation on the Æther of Sir I. Newton. 8vo. Dublin, 1743. With Appendix, Dec. 1, 1746. 12mo. 1747. [119]
- * R[obinson], B. Account of the Aether, with some Additions by way of Appendix. 8vo. Dublin, 1745. [120]
- Sowerby, James. A new elucidation of colours, original, prismatic, and material; shewing their concordance in three primitives, yellow, red and blue; and the means of producing, measuring, and mixing them; with observations on the accuracy of Sir I. Newton. 4to. London, 1809. [121]

Papers by Sir Isaac Newton, printed in the Transactions of the Royal Society of London. [122

Vol. VI. (1) Theory of Light and Colours. Vol. VII. (2) A Series of Queries, to be determined by experiments, positively and directly concluding his new theory of light and colours. (3) Account of a new catadioptical telescope. (4) Farther suggestions about his reflecting telescope, together with his tables of apertures and charges for the several lengths of that instrument. (5) Answer to some objections made by an ingenious French philosopher to the new reflecting telescope. (6) Some considerations upon part of a letter of M. de Bercé concerning the catadioptical telescope pretended to be improved and refined by M. Cassegrain. (7) Experiments proposed in relation to Mr. Newton's theory of light, with observations. (8) Answer to M. Pardies' letter on Newton's theory of light [printed in the same vol.]. (9) Answer to Mr. Pardies' second letter [in same vol.]. (10) Answer to some considerations on Newton's doctrine of light and colours. Vol. VIII. (11) Answer, further explaining the theory of light and colours. (12) Hopes of perfecting telescopes by reflections rather than refractions. (13) On the number of colours. Vol. IX. (14) Answer to M. Linus's letter animadverting on the theory of light and colours [printed in same vol.]. Vol. X. (15) Considerations on M. Linus's reply. (16) Another letter to the same argument. Vol. XI. (17) A particular answer to M. Linus's letter. (18) Answer to Mr. [Anthony] Lucas' letter of exceptions to the theory of light and colours. Vol. XLII. Description of an instrument for observing the moon's distance from the fixed stars at sea.

IV.

*The Method of Fluxions and Infinite Series; with its Application to the Geometry of Curve-Lines. By the Inventor Sir Isaac Newton, Kt., late President of the Royal Society. Translated from the Author's Latin Original, *not yet made publick*, To which is subjoin'd, A Perpetual Comment upon the whole Work, consisting of

Annotations, Illustrations, and Supplements, in order to make this Treatise *A Complete Institution for the Use of Learners*. By John Colson, M.A., F.R.S., Master of Sir Joseph Williamson's free Mathematical School, Rochester. London: Printed by Henry Woodfall; and sold by John Nourse, at the *Lamb*, without *Temple-Bar*. MDCCLXXXVI. [123

Dedicated to William Jones, Esq., F.R.S. pp. i—iv, iv—xxiv + 1—339 and Errata, 1 p. Sigs. A in 2, a, b in 4's, B—Uu in 4's, Xx in 2. Plate opposite title.

* Treatise of the Method of Fluxions and Infinite Series, with its application to the Geometry of Curve Lines. Translated. 8vo. London, 1738. [124

* La Méthode des Fluxions et des suites infinies par M. le Chevalier Newton. A Paris, chez De Bure l'ainé, Libraire, Quay des Augustins, à Saint Paul, 1740. [125

Title + preface, pp. iii—xxx. Errata, 1 l. Privilege du Roy, 1 l. La Methode, 1—148. Sigs: \bar{a} , \bar{e} , \bar{i} , \bar{o} in 4's + 1 l. + A—S in 4's, T in 2.

“Extrait des Registers de l'Academie Royale des Sciences, du 23 Décembre, 1738: Messieurs de Maupertuis & Clairaut qui avoient été nommés pour examiner le Traduction d'un Traité Anglois de M. Newton sur la Méthode des Fluxions, par M. de Buffon, en ayant fait leur rapport, la Compagnie a jugé que cet excellent Ouvrage méritoit en Traducteur aussi intelligent; en foi de qui j'ai signé le présent Certificat. A Paris ce 21. Mai. 1740. Fontenelle, Sec. Perp. de l'Ac. Roy. des Sc.”

From this “Extract” it will be seen that this translation is by “M. [George Louis Le Clerc, Count] de Buffon.”

Illustrations:

* *Commercium Epistolicum D. Johannis Collins, et aliorum de Analysi promota: jussu Societatis Regiæ in lucem editum*. Londini: Typis Pearsonianis, 1712. 4to. [126

Collation: Title, ad Lectorem, 2 ll. + pp. 1—122 + Errata, 1 l. Sigs. A—Gg in 2's, Hh in 4.

This edition was only printed for distribution, and not for sale.

- * *Commercium Epistolicum et jam una cum ejusdem Recensione præmissa, & Judicio primarii, ut ferebatur, Mathematici subjuncto, iterum, impressum.* Londini: Ex officina J. Tonson & J. Watts. 1722. 8vo. [127]
- Collation:* Title, ad Lectorem, 4 ll. + pp. [1]—[250] + Errata, 1 l. Sigs. A in 4, B—Q in 8's, R in 4, S in 2.
- * — Reimprimée sur l'édition originale de 1712 avec l'indication des variantes de l'édition de 1722, complétée par une collection de pièces justificatives et documents, et publiée par J. B. Biot et F. Lefort. 4to. 1856. [128]
- Cotes, Roger. *De Methodo differentiali Newtoniani Canonotechnia.* In Cotes' Opera Miscellanea. 1722. [129]
- * De Morgan, A. On a point connected with the dispute between Keill and Leibnitz about the Invention of Fluxions. 4to. 1846. [130]
- Short Account of Recent Discoveries in England and Germany relating to the controversy on the Invention of Fluxions [Companion to the Almanack]. 1852. [131]
- On the Authorship of the "Account of the *Commercium Epistolicum*" [Philos. Mag.]. June, 1852. [132]
- On the Early History of Infinitesimals in England [Philos. Mag.]. November, 1852. [133]
- * Ditton, Humphrey. *An Institution of Fluxions: containing the first principles, the operations, with some of the uses and applications of that method, according to Sir Is. Newton.* 8vo. 1706. 2nd edit., revised by J. Clarke. 8vo. 1726. [134]
- * Hodgson, James. *The Doctrine of Fluxions, founded on Sir Isaac Newton's Method.* 4to. 1758. [135]

- Keill, J. Response aux Auteurs des Remarques sur le Difference entre M. de Leibnitz et M. Newton. 8vo. 1713. [136]
- Epistola ad Joannem Bernouillum in qua Isaacum Newtonium et serpsum contra Criminationes in Actis Lipsiensibus a Crusio quodam publicatas defendit. 4to. London, 1720. [137]
- * Leibnitii, G. Guil., et Johan. Bernoullii Commercium Philosophicum et Mathematicum 1694—1716. Portrait of G. W. Leibnitz and plates. Lausannae et Genevae, 1745. 4to 2 vols. [138]
- * Maseres, F. Tracts on the Resolution of Affected Algebraic Equations by Dr. Halley's, Raphson's and Sir I. Newton's Methods of Approximation, with a Preface. 8vo. 1800. [139]
- * — The Doctrine of Permutations and Combinations. Being an essential part of the Doctrine of Chances, by Jas. Bernoulli and John Wallis, with other Mathematical Tracts. Published by F. Maseres. Roy. 8vo. 1795. [140]
- Raphson, J. Historia Fluxionum. 4to. 1715. [141]
- The Appendix contains the correspondence between Newton and Leibnitz concerning the invention of Fluxions.
- Robins, Benjamin. Discourse concerning the nature and certainty of Sir I. Newton's Methods of Fluxions and of Prime and Ultimate Ratios. 8vo. 1735. [In Robins' Mathematical Tracts, Wilson, 1761. Vol. II.] [142]
- Wallis, John. Opera Mathematica. 4 vols. folio. Oxon., 1693—9. [143]
- The Preface to Volume I., contains a brief notice of Newton's claim to the discovery of Fluxions, and printed in the work are extracts from the Quadratura Curvarum, with which Newton had furnished him.
- Walton, J. Vindication of Sir Is. Newton's principles of Fluxions against the objections contained in the "Analyst." 8vo. Dublin, 1735. [144]

V.

- * *Arithmetica Universalis ; sive de compositione et resolutione Arithmetica liber ; cui accessit Halleiana aequationum radices arithmetice inveniendi methodus ; in usum juventus.* 8vo. Cantabrigiae, 1707. [145]

Published and edited by Wm. Whiston.

- * — *Editio Secunda.* 8vo. 1722. [146]

Arithmetica Universalis. Preface by G. J. S' Gravesande. Lugd. Bat., 1732. [147]

Arithmetica Universalis. Commentarius illustrata et aucta a J. A. Lecchi. 3 vols. 8vo. Milan, 1752. [148]

- * *Arithmetica Universalis ; sive de compositione et resolutione Arithmetica.* Cum Commentario Joh. Castillionei. Plates. Amstelodami, apud Marcum Michaelum Rev., 1761. 2 vols. 4to. [149]

Collation : Vol. I. Title, Dedication 1 l. + monitum primæ editioni præmissum ad lectorem (G. W. 1707). Prefatio a G. J. s' Gravesande præmissa editioni quæ Lugduni Batavorum prodiit Anno 1732, Joh. Castillioneus. pp. v—xviii, pp. 1—310, Errata 1 p., Plates 1—8, and Tables A to Y. Vol. II. Title, pp. 1—228 + Title, pp. 1—134 + errata 1 p., Plates 9—12, Tables Z, a, and plate 6.

Vol. II. has "Additamentum vel de Solutione et constructione Aequationum &c. Scripta varia ex Transactionibus Philosophis et aliunde excerpta." [Edm. Halley, J. Colson, De Moivre, Colin MacLaurin.]

Arithmetica Universalis summi Newtoni, contracta, illustrata et locupletata ; praecunte logica analitica a Godef. Ant. Décoré. 8vo. Lugd. Bat., 1761. [150]

Translations :

- * *Universal Arithmetick : or, a Treatise of Arithmetical Composition and Resolution, to which is added, Dr. Halley's Method of Finding the Roots of Æquations arithmetically.* Translated from the latin by the late

Mr. Raphson, and revised and corrected by Mr. Cunn. London: Printed for J. Senex at the Globe in Salisbury Court, W. Taylor at the Ship, T. Warner at the Black Boy in Pater-noster Row, and J. Osborn at the Oxford Arms in Lombard Street, 1720. 8vo. [151

Collation: Title, To the Reader i—iv + pp. 1—272. Sigs. 2 ll. + B—Mm in 4's. 8 plates.

* — The Second Edition, very much corrected. London: Printed [by T. Wood] for J. Senex in Fleet Street, W. and J. Innys near S. Paul's, J. Osborne and T. Longman in Pater-noster Row, 1728. 8vo. pp. iv + 271. 8 plates. [152

“This new edition in English has been very carefully compared with the correct edition of the original, published, 1722.”

* — To which is added a Treatise upon the Measures of Ratios, by James Maguire, A.M. The whole illustrated in a series of Notes, by the Rev. Theaker Wilder, D.D., Senior Fellow of Trinity College, Dublin. London: Printed for W. Johnston in Ludgate Street, 1769. [153

Collation: Title, Dedication by Wilder to John, Duke of Bedford, &c. Preface (dated Sept. 1, 1768) v—viii + pp. 1—536 + Title + 1—63 + Errata 3 pp. 8 plates.

— — Another Edition. 8vo. 1845. [154

Arithmétique universelle de Newton, traduite avec des notes par N. Beaudeau. 2 vols. 4to. Paris, 1802. [155

VI.

* Opuscula Mathematica Philosophica et Philologica, recensuit J. Castillioneus. 3 vols. 4to. Lausannae & Genevae, 1744. [156

Tractatus de Quadratura Curvarum. Edited by P. R. de Montmort, 1700. [157

- * *Tractatus de Quadratura Curvarum. Explicationibus illustratus a Daniele Melander.* 4to. Upsaliæ, 1762. [158

Extracts from the *Quadratura Curvarum* were printed in J. Wallis, *Opera Mathematica* 1693—9, from material furnished by Newton to the author.

Translation.

- * *Two Treatises of the Quadrature of Curves and Analysis by Equations of an Infinite Number of Terms explained; containing the Treatises themselves translated into English from the Original of Sir Isaac Newton, with a large Commentary, by John Stewart.* London: Printed by James Bettenham, at the Expense of the Society for the Encouragement of Learning; and sold by John Nourse at Temple-Bar, and John Whiston in Fleet Street, Booksellers to the said Society, 1745. 4to. [160

Title, Dedication, To his Grace, Thomas Duke of Leeds, by Stewart. Preface v—x, contents xi—xxxii + pp. 1—479 + Errata 2 ll.

- * *Analysis per Quantitatum Series, Fluxiones, ac Differentias, cum Enumeratio Linearum Tertii Ordinis, [edidit Will. Jones.]* 4to. London, 1711. pp. [xiv +] 101. [161

- * — — *Amstelod.* 1723. 6 ll. + pp. 107. 4to. [162

Analysis per Equationes numero terminorum infinitas. 4to
London, 1711. [163

— *Translation: see John Stewart's Quadrature of Curves, 1745. [No. 160.]* [164

Newtoni Genesis Curvarum per Umbras, seu Perspectae universalis Elementa; exemplis Coni Sectionum et Linearum Tertii Ordinis illustrata. Leyden, 1740. [165

- * — 8vo. London, 1746. [166

Title, Dedicated to Martin Folkes, by Patricius Murdoch. *Lectoris* v—x, *Errata*, 1 l. + pp. 1—126. 12 plates.

* *Lineæ Tertii Ordinis Newtonianæ ; sive illustratio tractatus D. Newtoni de enumeratione linearum tertii ordinis*, auc. James Stirling. 8vo. Oxon. 1717. [167

— 8vo. Paris, 1797. [168

First published in Newton's *Opticks*, 1706, but not reprinted in the other editions of that work.

See also Nos. 161 and 165 for editions dated 1711 and 1740.

Translation.

* Sir Isaac Newton's Enumeration of Lines of the Third Order ; Generation of Curves by Shadows ; Organic Description of Curves, and Construction of Equations by Curves. Translated, with notes and examples by C. R. M. Talbot. Plates. 8vo. 1861. pp. vi + 140. Plates. [169

VII.

* *Chronology of Ancient Kingdoms amended. To which is prefix'd, A Short Chronicle from the First Memory of Things in Europe, to the Conquest of Persia by Alexander the Great.* London : Printed for J. Tonson in the Strand, and J. Osborn and T. Longman in Pater-noster Row. 1728. 4to. [170

Dedicated to the Queen, by John Conduitt.

— A French Translation by the Abbé Granet. 4to. Paris, 1728. [171

Illustrations.

Bedford, Arthur. *Animadversions upon Sir Isaac Newton's Chronology.* 8vo. 1728. [172

Feret. *Defense de la Chronologie.* 4to. Paris, 1758. [173

Musgrave, Samuel. *Examination of Sir Isaac Newton's Objections to the Chronology of the Olympiads.* 8vo. 1782. [174

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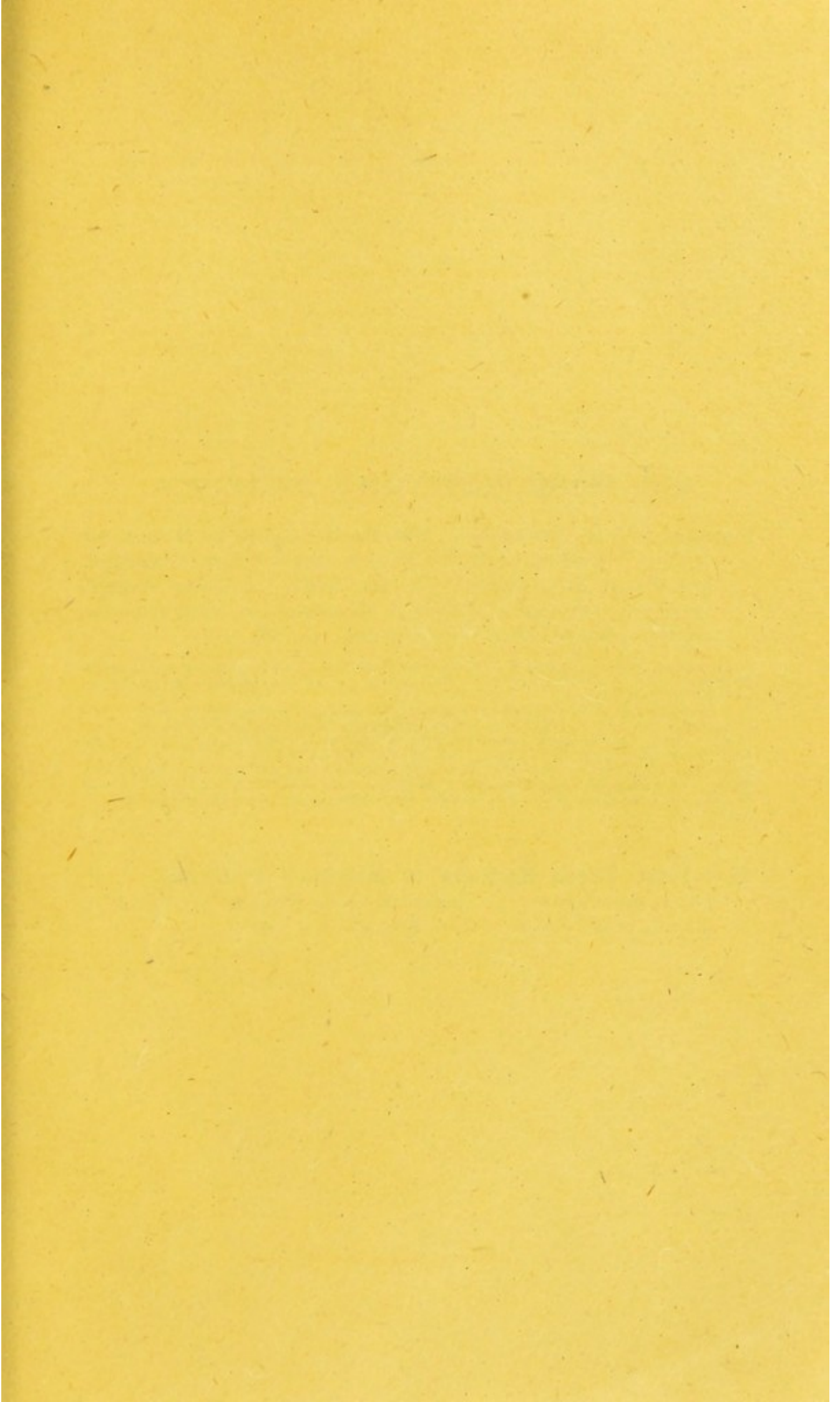
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