

VI. An Account of BOOKS.

- I. *The Mathematical Works of Dr. John Wallis, Savilian Professor of Geometry in the University of Oxford, and Fellow of the Royal Society, in Two large Volumes in Folio. à Theatro Oxon.*

IN the former of them are contained, 1. His *Inaugural Oration*, when he entred upon that Employment, *Octob. 31. 1649.* 2. His *Mathesis Universalis*, or *Opus Arithmeticum*; containing not only *Numeral Arithmetick*, but the *Specious* and *Algebrick*, or the *Calculus Geometricus* (Philologically and Mathematically handled;) with many Discourses or smaller Tracts intermixed, thereunto relating. 3. A Treatise concerning Proportions; distinguishing the *Proportio Dupla, Tripla, &c.* from the *Duplicata, Triplicata, &c.* (occasioned by a Treatise of *Meibomius*, entituled, *De Proportionibus Dialogus*;) With a Preface concerning *Cubical Equations.* 4. A Treatise of *Conick Sections*, in a New and Easie Method; considered as plain Figures, exempted out of the Cone. Whereby the Doctrine of Conicks is made much more Intelligible than formerly, when it was esteemed so perplex and intricate, as to deter many from meddling with it. 5. His *Arithmetick of Infinites*, being a New Method of Investigation or Enquiry into the Quadrature of the Circle and other Curve-lined Figures; and many other Mysteries in Mathematticks, which were before held as deplorate. 6. An Observation of a *Solar Eclipse* at *Oxford, Aug. 2. 1654. Stil. Vet.* 7. A Treatise of the *Cycloide*, with the Bodies and Surfaces thence derived; occasioned by a Publick

lick Challenge *Ad omnes Europæ Mathematicos*. 8. A Treatise of the *Cissoide*; and the Rectification and Complanation of *Curve Lines* and Surfaces, in a Method derived from the Arithmetick of Infinites. 9. His *Mechanica*, or a large Treatise of *Motion*. Wherein are handled; not only the Machines or Engines, commonly called the *Mathematical* or *Mechanical Powers*, but the whole Doctrine of *Motion*; derived and demonstrated from its Genuine and first Principles; with great variety (especially in the Second Part, which is *De Centro Gravitatis ejusque Calculo*;) of intricate and perplexed Enquiries into the most abstruse Mysteries in Mathematicks, many of them not formerly handled by any; the Doctrine of Percussions, Repercussions, Springs, and Reflexions; the Doctrine of Hydrostaticks, from the Counterpoise of the Air; and many other things newly discovered.

In the latter Volume is contained, 1. A large Treatise of *Algebra*, Historical and Practical: Shewing the Original and Progress of that Art, from time to time, and the steps whereby it hath attained to that height whereat now it is, amongst the *Greeks*, the *Arabs*, and the later *Europeans*: With the several and successive Methods of Operations thereunto appertaining; and the great Improvements thereof in the present Age: Together with many occasional Discourses intermixed. 2. A Treatise of *Combinations*, *Alternations*, and *Aliquote Parts*; and divers Problems relating thereunto. 3. A Treatise of *Angular Sections*, with other things thereunto appertaining; as the Canon of *Sines*, *Tangents*, and *Secants*, &c. 4. A Treatise of the *Angle of Contact*, (as it is commonly called;) shewing it to be of *No-Magnitude*, and not any part of a Right-lined Angle. 5. A *Defence* of that Treatise, against the Objections of *Leotand* and others: Together with several Discourses concerning Composition of Magnitudes, Inceptives of Magnitudes,
and

and Compositions of Motion ; which give Light to the clearing of many Difficulties formerly apprehended, as relating thereunto. 6. A Discourse concerning *Euclid's Fifth Postulate*, and his *Fifth Definition* of his Sixth Book ; in Vindication of *Euclid* from the unjust Exceptions of divers, occasioned by their mis-apprehensions of *Euclid's* Design therein. 7. A Treatise of the *Cono-Cuneus*, or a Body representing partly a Cone, and partly a Wedge, with the Sections thereof made by a Plane ; considered in like manner as what are called the *Conick Sections*. 8. A Geometrical Disquisition of *Gravity* and *Gravitation* ; wherein the Doctrine of the *Counter-poise of the Air* is defended against that of the Ancients *Fuga Vacui*. 9. A New *Hypothesis* concerning *Tides*, or the Seas *Ebbing and Flowing* ; derived from the *Common-Center of Gravity* of the Earth and Moon, considered as *Conjunct Bodies*. 10. *Commercium Epistolicum* ; being a Collection of Letters which passed between Messieurs *Fermat* and *Frenicle* on the one Part, and the Lord Viscount *Brouncker* and Dr. *Wallis* on the other Part, by the Intervention of Sir *Kenelm Digby* ; concerning divers Questions Mathematical. 11. A Treatise of *Trigonometry*, Plain and Spherical, of Mr. *John Caswell*.

2. *Traſtatus de Salis Cathartici amari in aquis Ebelhamenſibus & hujusmodi aliis contenti Naturâ & uſu.* Aut. Nehemia Grew, M.D. Utriuſque Reg. Soc. Soc. Lond. Impenſis S. Smith & B. Walford. In 12°.

THE Learned Author of this Treatiſe, having found by his own Experience, and that of many other Eminent Phyſicians in *London*, the manifold Uſe of the *Purging Waters* near *Epfom*, and others of the ſame kind; as alſo of the Bitter Purging Salt contained in theſe Waters; concluded the giving a Publick Account hereof, would be a Work not unacceptable to Phyſicians remote from *London*, whether in *England* or elſewhere; to moſt of whom this Medicine hath hitherto been a Stranger.

The Book it ſelf is divided into Two Parts. The former, of the Nature of the Purging Waters, and of the Purging Salt therein contained. The latter, of their Uſe.

The former hath Six Chapters. The Firſt ſhews how theſe Waters came to be commonly known and uſed. The Second ſhews the Nature of the Waters. The Third, the Nature of the Purging Salt of theſe Waters. Where, among many other Experiments, it is obſerved, That the Crystals hereof, when permitted to ſhoot at a due diſtance, are moſt of them Rectangular Priſmes with four Parallelogram Planes. By which, and divers other Properties, it is diſtinguiſhed from all other Salts. The Fourth ſhews the difference between this Salt and Allom; and that the Waters are falſely ſuppoſed by many to be Aluminous. As alſo between this and Common Salt; although ſome quantity of
Common

Common Salt be contained in all the Purging Waters. The Fifth demonstrates the difference of this Salt, both from Nitre, and from the Salt of Lime; notwithstanding it hath been taken for a Calcarious Nitre. The Sixth containeth some further Observations of this Bitter Purging Salt, grounded chiefly upon the foregoing Experiments.

The Latter Part hath Seven Chapters. The First sheweth the Use of the Waters, and of their Purging Salt in general. Wherein, those Objections, as may seem to lye against the Salubrity hereof, are fully answered. The Second sheweth the ways of using the Salt; whereof one of the best is to take it dissolved in its own Purging Water, raw, or first a little boyled: Whereby the said Water will work, both in a far less quantity, and more kindly and effectually. The Third sheweth in what Diseases this Medicine is to be used; particularly of the Stomach, as in want of Appetite, Vomiting, Pains like those of the Colick, Hypochondriacal Melancholy with Heat, and that Disease called the Heart-burning. The Fourth, in what Diseases of the Guts, and adjacent Parts; as the Colick, Worms, Nephritick Pains, commonly called, the Stone-Colick, Hot Urine, Suppression of Urine, Diabetes, and the Jaundies. The Fifth, in what Diseases of the Head; as Madnes, Head-ach, and the Megrim. The Sixth, in what other Diseases more Universal; as Mother-Fits, the Wandring Gout, commonly called a Rheumatism, and the Scorbutick Itch. The last mentioneth the Diseases wherein it is improper and hurtful.

To all which, the Doctor premises this necessary Caution, That this Medicine, in any more than ordinary Case, be never used alone, but in conjunction with other convenient Remedies; some whereof he hath thought fit to mention. Yet so, as no where to set

down an entire Method of Cure ; in regard the Treatise is intended for the Use, not of Young Beginners, but Experienced Physicians.

The chief Experiments of the Nature of this Salt (whereupon its Vertue depends) were shewed at a Meeting of the *Royal Society* (some Learned Physicians being present) to their great Satisfaction.

L O N D O N :

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