These being two admirable Universal Rules in Geometry, *the Reader will find the same* (*with many others*) *demonstrated by Dr.* Wallis *in his Treatise* De Calculo Centri Gravitatis, *which together with his other Tracts*, De Motu, Statica, Mechanica, *are now at the Press in* London. *The same Rules are likewise demonstrated in* Geometriæ parte Universali Jacobi Gregorii Scoti, *Patavii* 1668. *Of which a competent number of Copies is expected here.*

The Methods of these Learned Men are different, and good Arguments might be given, that they have not communicated nor seen the Works of each other.

Guldinus, l. 1. c. 12. *shews a Mechanick way to find the Center of Gravity of a Surface or Curv'd Line, by 2 free suspensions, from the points of which, perpendiculars being drawn, do cross each other at the Center of Gravity. This we mention, to keep the Reader from taking the Center of Gravity of a Curv'd Line as such* (*which is intended in this 2d Rule*) *to be the same with the Center of Gravity of the Figure thereby terminated in the first Rule.*

3. Considers the Affections of *Round Solids*, begot from a *Parabola*, in 10 *Propositions* from *Numb.* 20. *to* 29. both *inclusive*; whereof the 21 and 23 gives the *Hoof* required by *Angeli*, which was formerly cubed by *Greg. de S. Vincentio*. In the 27th *Prop.* he gives the Proportion of the *Parabolical Conoid* to the *Spindle* made of the same *Parabola* by rotation about its Base, to be, As the *Base* of the *Parabola* is to $\frac{16}{15}$ of the *Axis*; shewing, that *Guldinus* err'd through forgetfulness. In *Prop.* 29. he delivers, that the *Parabola* bears such a proportion to a *Circle* describ'd about the *Base* thereof as a Diameter, As the *Axis* of the *Parabola* doth to that *Circumference* of a Circle, whose *Radius* is equal to the distance of the Center of Gravity of the *Semi-Parabola* from the *Axis*.

4. Contains divers endeavors and manifold new ways towards the obtaining the *Quadrature* of the *Circle* in 12 *Propositions*.

5. Contains 10 Propositions, from 41 to 51; in the 42th whereof he finds a *Sphere* equal to an *Hyperbolical Ring-Solid*; whence divers ways are open'd towards the attaining the *Quadrature* of the *Hyperbola*: And he finds a Sphere equal to a Ring made by the Rotation of a *Segment* of an *Hyperbola*, and of the *Segment* of a *Circle* thereto annexed, described about the Base of the *Hyperbola* as a Chord Line: Then he absolutely cubes certain *Hoofs* cut out of an *Hyperbolical Cylinder*, and thence derives other ways towards the obtaining the *Quadrature* of the *Hyperbola*.

6. Delivers 3 Theorems, shewing the proportion between an *Hyperbola* and a *Circle*: which are conceived to be wholly new.

But these *Theorems* suppose the *Quadrature* of *both Figures* known, *viz. That* of a Circle, in requiring the length of the *Circumference* of a *Circle*, described by the *Center of Gravity* of an *Hyperbola*; which Center cannot be found, without giving the *Quadrature* or *Area* of the *Hyperbola*: which hath been most happily perform'd by *M. Mercator* in his *Logarithmo-Technia* and further advanc'd by Dr. *Wallis* in N. 38. of these *Transactions*; and by *M. Gregorii* also further promoted and otherwise perform'd in his *Exercitationes Geometricæ*, where he shews, the same *Methods* and *Approaches* to be likewise applicable to the *Circle*.

What we have said, being an Account of one of the most considerable Volumes of Mathematicks extant, we hope we may be the better excused for prolixity. This Author formerly publish'd the *Elements* of *Plain* and *Solid* Geometry in 8°, and an *Arithmetick* in 8°, wherein he promised a Treatise of *Algebra*.

Errat. P. 865. l. 24. *r. m* P C; p. 866. l 3. *del. sinistrorsum*; *ibid.* l. 18. *r. Gravitationem*; *ib.* l. 24 .*r. progressivo*; *ib.* l. 29. *r. sit*; p. 867. l. 23. *r. improprie.*

☞ P. 863. Insert immediately before these words [*Lege syllabas, Regula.* Re, Se, faciunt oR, oS: Ro, So faciunt eS, eR.

In the *SAVOY*,
Printed by *T. N.* for *John Martyn*, Printer to the *Royal Society*, and are to be sold at the *Bell* a little without *Temple-Bar*, 1668.