

gard of the Earth, because the motion was retrograde, *this* was to be made Concave towards the Earth; suitable to what hath been said in the same Theory, because that the motion of this Comet is direct.

According to this *Hypothesis*, those last daies, that the Clouds hindered us from seeing this Comet, he must have continued his course towards the root of the Southern horn of *Taurus*, and having pass'd the Ecliptique between the 9<sup>th</sup> and 10<sup>th</sup> of *April*, he must pass on the top of *Orion's* head the 20<sup>th</sup>; over his Arm the 24<sup>th</sup>; and at the end of this month he will be in the *Milky Way*. But it will be difficult hence forward to find him, because of his smallness, and the light of the Moon.

'Tis a thing worth observing, that this Comet keeps his course almost like that of the 2<sup>d</sup> Comet of 1665, and of another of 1577 observ'd by *Tycho*. For they have pass'd through almost the same Constellations; though this be more inclined Nord-ward, and cut the Ecliptique five or six degrees more forward than that of 1665. So that it seems, that in this place of the Heavens there is, as 'twere, a *Zodiaque* for Comets.

*An Account of some Books.*

I. De RESISTENTIA SOLIDORUM *Alexan. Marchetti, in Præsana Academia Phil. Prof. Excusum Florentiæ 1665 in thin 4<sup>o</sup>.*

**T**His book came not long since to my hands: It had been promised some years before under the Title of *Galileus ampliatius*. But the Author now follows not the Steps of *Galileus*, but demonstrates all his Propositions another way; building all upon this ground: *Momenta Graviorum proportionem habent compositam ex proportionibus ponderum & longitudinum*: which is his first Proportion. This Book being but small, and the subject admitting of enlargement, the Author promiseth a larger Treatise of the same.

II. *Tabula numerorum QUADRATORUM decies millium, mē cum ipsorum LATERIBUS ab Unitate incipientibus, & ordine naturali usque ad 10000. progredientibus.* Londini, 1672.

**A** Table of ten thousand *Square numbers*, namely of all the Square Numbers between 0 and 100 millions; and of their *Sides* or *Roots*: Which are all the whole Numbers between 0 and ten thousand: 8 sheets in fol.

The Concinnity of 10, 8 or 7. Centuries in each opening, may to please some Reader's eye as to invite him to continue the Table

Table to 100 thousand Squares, placed in the same order. But Arithmeticians will see divers advantages, which would have been lost, if there had been more or fewer lines in a page; or if the Centuries had not stood entire in every aperture.

The two last pages are sufficiently contained in p. 30, which preceeds them, if men were acquainted with the compendious way of writing in *Cribris*. That fair edition of *Aratus*, printed this year in *Oxford*, adjoins some fragments of *Eratoſthenes* (who dyed almost 1900 yeares ago.) Among the *reſt*, there is the *beginning* of his Arithmetical *νόσμων* of odd numbers, to ſhew, which of them are incompoſit &c. The loſs of that *cribrum* was abundantly ſupplied by the *Table* of incompoſit numbers, printed at *London* for Mr. *Pitt*. 1668; as this *Table* is.

Thoſe 3 laſt pages have a Curioſity, perhaps not ſeen before; viz. an accurate enumeration of all the *Endings* of numbers truly Square. Thoſe *Endings* in *one* figure are ſix; in *two* figures, are 22; in *three* figures, are 159; in 4. figures, are 144: which, being here ſet down in their natural order, ſtand there ready to diſcover many long given numbers not to be Square; which otherwiſe could not have been perceived to be ſuch till after extraction.

But they alſo give an occaſion to tranſcribe here the *three laſt* lines of the laſt page, which are theſe.

“*Having the two three or four laſt figures of any Square number,*  
 “*to exhibit as many of the laſt figures of its ſide, is a new Queſtion,*  
 “*to which the juſt answers are manifold and not obvious. A*  
 “*particular Account of them is ready for the preſs, when it ſhall be*  
*deſired.*”

In the mean time, the *Pu bli ſher*, having ſeen the ſaid Account in the hands of the *Author* (*Doctor Pell*,) is able, for the clearing of thoſe words [*the juſt answers are manifold*] to add thus much:

When the *Queſtion* is concerning the 22 *Combinations*, 20 of them have 4 *Answers* a peice; 50 of them have, each of them, 10 *Answers*.

When the *Queſtion* is concerning the 159 *Ternions*; 100 of them have 4 *Answers* a peice: 50 of them have, each, 8 *Answers*; Two of them have, each, ten *Answers*; Five of them, have each, 20 *Answers*; Two have, each of them, 40 *Answers*.

When.

When the Question is concerning the 1044 Quaternions ; 1000 of them have 8 Answers a peice ; 40 of them have, each, 40 Answers ; four of them have, each, 100 Answers :

As it is hoped, will shortly appear in print ; that so the Excellent Author may proceed to publish his higher and more plausible superstructures.

III. Regneri de Graaf. *de MULIERUM ORGANIS GENERATIONI INSERVIENTIBUS Tractatus novus*. Lugduni Batavorum, 1672 in 8°.

WHAT this Inquisitive and Industrious Anatomist had formerly promised touching this Subject (intimated N°. 34. p. 663. and N°. 79. p. 3056. 3057.) he now amply performeth in this Treatise, which appears to be written upon long search and much examination, and is illustrated with many very curious and accurate Schemes.

The main Design of the Book is, to make it out what the Author as well, as *VanHorn, Steno, Swammerdam*, and others have given out concerning the Manner of Generation in Animals call'd *Viviparous* ; viz. that they, no less than the *Oviparous*, have *Ovaria* containing many Eggs ; and that those Eggs are after the same manner rendred prolifick, and come to the *Uterus*, as they do in Fowl : which he saith will be found more than probable to those, that shall have well examin'd the Genitals of *Oviparous* creatures ; in regard that, as the extremity of the *Oviductus* or Egg-channel ends in a membranous expansion in Birds ; so the *Tubæ Fallopianæ* do end likewise in *Quadrupeds*. And as the same *Oviductus* in Birds receiveth the Eggs falling from their buds ; so the said dilated *Tubæ* in *Quadrupeds* do receive the Eggs expell'd out of the Baggs. Which that it may be the better clear'd up, he observeth.

1. *Ova hæc in testibus generari ac perfecti, eodem modo quo vitelli in Avium ovarii solent ; quatenus scil. per arterias præparantes sanguis ad testes affluens, in membranosa illorum substantia materiam iis generandis ac nutriendis relinquit.*

2. *Ova è testibus expelli, quoties masculino semine irradiata, brevi post coitum fecundum, inter eorum tunicas, glandulosa quedam substantia excrescit, quæ Ovum tamdiu comprimit, donec per papillam, in extrema folliculi superficie conspicuam, erumpat ; idque vel citius vel tardius, prout animalia longiori aut breviori tempore uterum gerunt.*

3. *Ova*

3. Ova hac ratione e testibus propulsa necessario in Abdominis cavum esse delapsura, nisi Tubæ Fallopiæ inexplicabili, ac visibili tamen, modo ova illa exciperent, & ad uterum deberent: Visibilem dicit, cum sæpius id conspexisse se, & indies se demonstrare posse affirmet.

Whereunto he adds the changes, which those Eggs daily undergo in utero: All which things coming to pass in Cows, Ewes, and other Animals, frequently dissected by him, he concludeth, that Generation in Women also is made after the same manner, quippe qua ova in testibus, & tubas utero annexas, uti bruta animantia, obtineant.

Mean time, he would not have any one phancy, that the Eggs in Quadrupeds and Women are invested with a hard shell: that being not essential to an Egg, and there being more sorts of Eggs that have no such hard shell, than that have it, as of Fishes, Froggs, Serpents, &c.

Nec putare nos velit, in Mulieribus & ceteris Viviparis, isto quo in Gallinis modo, per unum alterumve diem Mari commissis, omnia omnino Ova facienda reddi; cum ne quidem in omni Avium genere id fieri certum sit, in quorum aliis duo, in aliis tria, in aliis quatuor, in nonnullis decem & plura Ova simul fecundentur & ab iis excludantur. Mulieres verò, quanquam & ipse plura in Ovaris ova contineant, plarumque tamen in nostris regionibus unum tantum Ovum, masculino semine irradiatum, e testibus in uterum expellant; quanquam & plura interdum eodem simul coitu irrorari citra miraculum possint: cujus rei multa apud Casp. Bauhinum l. 1. de Hermaphr. c. 8. exempla legantur; ubi nunc tres, nunc quinque, nunc decem & plures fetus uno partu editos reperies; quod canibus, fœtibus, cuniculis &c. perquam familiare est. Ubi tamen notatu dignum, in istis animalibus tot passim folliculos in testibus existere, quot fœtus aut Ova in utero, & nunquam in utero plures fetus adesse, quàm folliculos in testibus; ita ut ex testibus solis, fœtum in utero existentium numerus dignosci possit.

But, besides the clearing of this matter and the difficulties and objections raised against it, the Author is very full and accurate, in describing the *Genitalia Mulierum* themselves.

Moreover he giveth us two curious and instructive Schemes de partibus Genitalibus Galli & Gallina, together with their Explication. And he omits not to deliver a minute description of the *Tube Fallopiana mulierum*; and shews, whence it is, that by some they are esteem'd altogether and alwaies close, whereas they are at certain times really open, though the hole of their extremity be very narrow; p. 246. He rejects the (commonly so called) *Vasa deferentia* from being fit vessels for transmitting Eggs, p. 250. as he also contradicts the assertion of those, that pretend to have found humane *fœtus's* of no more than 3, 4. or 8, daies old after conception, p. 246. \* See Numb. 81. p. 422.

Further he informs us, How an Egg is by degrees changed in utero; how it is nourished and augmented there from time to time; and in what order each part is perfected &c. Concerning which, the Reader will probably receive in a short time some discoveries, made, and lately;

lately imparted to the *Royal Society*, by Signor *Malpighi*, an Italian, and Dr. *Croon* an English phisitian, both Fellows of that Society. He concludeth all with an excellent Chapter, treating of the Generation of *Rabbets*, and thereby confirming all the main parts of his former doctrine.

IV. *Discours de la CONNOISSANCE des BESTES*, par le P. Ignace Gaston Pardies, S. J. A Paris 1672. in 12°

**T**He learn'd Author of this Book examines therein the Opinion of those, that esteem Beasts to be meer Engins without any perception and Knowledge. In the doing of which, he represents at large and to advantage what hath been and may be alledged in favour of that doctrine; that so, when he shall be found by the Teachers of it not to be of their sentiment, they may not Judge him to be a Dissenter at least for want of having considered their reasons.

After he hath spent the greatest part of his discourse in urging the arguments for the sole Mechanical Contrivance of the Structure and Operations of Beasts; and interspersed the discussion of the Opinion of the other extreme, which adscribes Reason to them: He declares at last his sense of this whole matter, and endeavours to prove, That Beasts, though they have not any *Intellectual*, yet they have a *Sensible* knowledg; or, though they have not such a perception that essentially carrieth with it a reflection upon it self; yet they have a simple apprehension of Objects without that reflexion. So that he esteems, that from this distinction all the difficulties, that have been propos'd, will vanish; and that the reasons, alledged to the contrary, proove indeed, that Beasts have no Spiritual knowledge, but not at all, that they have no Sensible one. For the particulars, whereby this is endeavoured to be made out, we refer the Reader to the Book itself.

Advertisement.

*A short Essay Printed in half a sheet of Paper, wherein Rules are laid down, directing, how to divide a Period into sentences; with what Points the Sentences shall be distinguished, and how to read those Sentences Grammatically; more distinct than what has been formerly done: Very useful for the clearness of any discourse and for exact and distinct reading. By M. Lewis: Sold by Thomas Parkhurst at the Bible and Crown in Cheapside, and M. Milion, at the Bible in Fleetstreet.*

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ERRATA in N°. 81, P. 4011. l. 17. (=DO) l. 26. 2 fv<sup>3</sup>. ibid. pro 5<sup>2</sup> leg. s<sup>2</sup>. l. 29. pro, alia VC leg. aliãve. p. 4012. l. 10. ceterisque l. 12. n v h x. l. 13.  $\frac{v h = 52}{n 12 - v h x} n x$ . l. 14.  $\frac{1^2 x}{r^2 - 12}$  p. 4014. l. 14. post Va, add, & equaliter accelerato secundum AV vel Ya. l. 19. & completo. l. 25. natarum. l. 27. rectis Yu. l. 31. VF. p. 4015. l. 12. AC. æE =  $\frac{3}{4} r$ . p. 4016. l. 1 CM. CS :: l. 12. conveniat. l. 14. accommodandus.

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L O N D O N,

Printed for John Martyn, Printer to the Royal Society. 1672.