

the genius of their Age, fight about the *Manna*. Near them are *Men*, gathering *Manna* in the mean time, and eating thereof. A little farther off, appears a *Girl*, who unwilling to take the pains of stooping, holds out her coat to receive the *Manna* falling down, and looks on it, as if the Heavens dropp'd it for none but her: Which well expresseth (says the Observer) the Softness and disdainful Temper of that Sexe, which loves not to take pains, and imagines that all must come to pass, as they wish. In the other piece, which exhibits the Recovery of the *Two Blind* men, to whom our Saviour restored their Sight, there is an *old* man, who comes very near, peeping, and looking as if he doubted of the truth of the Miracle: in which the Artist hath well observ'd the genius of Aged persons, who commonly are more incredulous and diffident than others.

Besides this, there are examin'd here and there in these Conferences divers Questions important in Painting; which would be too long to particularise in this place.

An Account of some Books.

INSTITUTIONUM CHRONOLOGICARUM
 Libri duo; una cum totidem ARITHMETICES CHRO-
 NOLOGICÆ Libellis: per Gulielm. Beveregium M. A.
 è Colleg. S. Joh. Cant. Londini 1669, in 4^o.

THIS Author first taketh notice, that though most Nations have been diligently endeavoring to render a good account of *Time* (having its Original and Progress from the Motions of the Heavens) yet casting his Eyes upon some of the most famous Chronologers, as *Scaliger*, *Petavius*, &c. he found *Chronology* obscur'd with many intricate Questions, fill'd with many knotty Controversies, stuffed with a multitude of uncertain Comments, and deliver'd in such an odd and dark method, that the knowledge thereof was not to be obtain'd without much difficulty, and loss of Time. Whereupon he declareth his Design to be, To deliver the same from Controversy, and only to treat of what concerns meerly the Distinction of Time, omitting matters of less concernment, and yet nothing of what may be requisite to *Chronology* it self; in which he (*truly*) asserts, That many

many things, most worthy to be known, may be found, for which you may look in vain elsewhere.

And what he performes herein, he doth in a Method different from others, *viz.* meerly by *Arithmetick*, without the aid of *Chronological Tables*; which, even of the best Authors, will hardly be found without manifold faults.

In the *first Book* he treats of *Time* in general; of a Moment, (*de Scrupulo*;) an Hour, a Day, Week, Month: And then of the severall sorts of Years, the *Celestial*, *Iulian*, *Gregorian*, *Egyptian*, *Ethiopick*, *Persian*, *Syriack* and *Grecian*; item, the *Astronomical*, *Civil*, and *Solar Year* of the Jews, and the *Arabick* year.

In the *second*, the Author (shewing good skill in Astronomy) treats of *Conjunctions*, and *Eclipses*, of the *Æquinoxes* and *Solstices*, the *Circle of the Sun*, and the *Dominical Letter*; the *Circle of the Moon* or the *Golden number*, the *Roman Indiction*, and *Epacts*; of severall eminent Periods or Revolutions of Time, as the *Metonick*, *Calippick*, the *Dionysian* and *Iulian* Period; of severall *Æras* or fixed Characters of Time, as the *Christian* and *Dioclesian*; of the Age of the World according to the Accompt of the *Gracians*: Moreover of the *Jewish Æra*; The *Æra* or *Ethnick* Accompt from the taking of *Troy*; and the *Antiochenian Epocha*: the *Olympiads*, and *Agones Capitolini*: Of the *Iulian* year, the *Spanish Æra*; the *Æra* of the Victory at *Actium*; the *Epocha* of *Nabonassar*; as also of the *Philippean*, *Alexandrian*, and the *Yezdegirdican Epocha*; and of the *Mahometan Æra*, the *Hegira*, or Flight of Mahomet.

In the *Arithmetical Part*, the Author shews not only his great skill in *Arithmetick*, even in the *Speculative parts* thereof, accompanied with good knowledge in the Grounds of *Geometry* but likewise his understanding of *Exotick* and *Ancient Languages*; and, as a Specimen thereof, explains the *Common Characters* of *Arithmetick*, as he doth also the *Indian*, *Roman*, *Hebrew*, *Samaritan*, *Grecian*, *Syriac*, *Arabick* and *Ethiopick* Characters. And to the End of the *second Book* he hath annexed an *Appendix*, wherein, in *Roman Letters*, he hath explained the *Hebrew*, *Syriack*, *Persian*, *Ethiopick* and *Arabick* Words for the respective Months of the Year, for the ayde

of those, that are not so much exercis'd in the *Oriental* Languages.

And the Author, finishing this Book in the Year 1667, sheweth (as a general Example of all his Calculations) in what Year of all the severall *Periods, Ara's, Epocha's* and *Accompts* before mention'd, the *Year* of our *Lord Christ* did then happen.

But this is not all, that is to be expected from this Author; since himself intimates pag. 179. *Sed manum de Tabula; de his enim aliisque, quæ ad Annos præsertim Mensesque Orientales pertinent, alibi, Deo volente, fusius agemus*: Which doubtless to the Learned (considering what is already publish'd by him) will be very acceptable:

II. ELEMENTS of SPEECH: An Essay of Inquiry into the Natural Production of Letters; together with an Appendix to instruct Persons Deaf and Dumb: By William Holder D.D. and Fellow of the R. Society. London, by John Martyn, 1669; in Octavo.

TO give the Reader the summe of what is said in this well considered and useful Tract, it is as follows;

Language is a Connexion of Audible Signs, the most apt and excellent in whole Nature, for Communication of our Thoughts and Notions, by Speaking. *Written Language* is a Description of the said Audible Signs, by Signs Visible. The *Elements* of Language are *Letters*, viz. Simple Discriminations of Breath or Voice, Articulated by the Organs of Speech.

The *Alphabet* consists of so many Letters, as there are to be found such Simple Discriminations. And the *Written Alphabet* ought to be just so many single proper Characters, design'd to signifie the Sound or Power of each Letter. And these are the Storehouse of Nature, the Elements and Materials, out of which all Languages are made. These Letters have their *Material* and their *Formal* Causes, and *Organs* proper to each. Their *Matter* is various, viz. Breath or Voice, i. e. Breath vocalized by the Operation of the *Larynx*. Their *Form* is constituted by the Motions and Figures of the Organs of Speech, affecting the Breath or Voice with a peculiar Sound, by which each Letter is discriminated.

Now to find out their just Number, *First*, Find out the different Kinds of Matter, of which Letters are made; and these are in general, *Breath*, when only Spirit or Breath is articulated; and *Voice*, when Articulation

is of Breath vocalized: And these again, more particularly, are either (after they have passed the *Larynx*) only in the *Mouth*; or else have passage at the same time through the *Nose*. So there are four Kinds of *Matter*, Breath Oral, Voice Oral, Breath Ore-Nasal, and Voice Ore-Nasal.

Next, 'Tis to be examin'd, How many different *Articulations* can be made by several Motions and Postures of the Organs in the Parts of the Mouth; which applied severally to the Kinds of Matter, may make several Discriminations of Sound to the Ear, *i. e.* several Letters. And of these (as to *Consonants*, *viz.* Letters made by Appulse) our Author finds, and hath described 9. And if possibly any more may be found out, he judg'd it to be most likely, that they will not recompence the Discoverers pains, by being of ready and graceful use, but will be fitter to be cast out among several others; to which in his Scheme of *Consonants* he hath prefix'd an *Obelisk*.

Now by these 9 Articulations with Appulse, there will be fram'd *Consonants Spiritual* 9; *Vocal* 9; *Naso-spiritual* 9; *Naso-vocal* 9; in all 36. Then rejecting those, that prove not graceful; nor easie to be pronounced; *viz.* 2 *Spirituals*, 2 *Naso-spirituals*, and 6 *Naso-vocals*, in all 17; there will remain 19 *Consonants* proper for use, according to the design of Letters. And if those, to whom these 19 *Consonants* (or about that number) appear'd and stood in such confus'd Order, some in Ternaries, some in Pairs, and some Single, were themselves put into so much Confusion, and so puzzled to give a Methodical and Natural Account of them, it is no matter of wonder. But now, looking upon them, as they lie in their Original *Differences* and *Combinations*, and as they are selected out of a Natural Stock of 9 *Quaternions*, or 4 *Novenaries*, 'tis judg'd, that their Nature and Differences lie most plain and obvious to be understood.

That which renders this Piece the more commendable, is its *Usefulness*, to which the Author hath excellently applied his Considerations of this Subject; *viz.* *The instructing of Persons Deaf and Dumb*. In the performance of which, he hath first removed the great Objections and Difficulties that lie in the way, and seem to discourage that Design, and to portend it infesible. Which done, he delivers those particulars, that give encouragement to that Undertaking; which he doth from his own practice therein; it being certain, that such a Work as this, is not to be perfected by Study alone, but must and will receive many hints and helps (not to be thought on otherwise) whilst the Endeavour is excited, being under Experiment and Practice.

III. GUAGING PROMOTED, *Being an Appendix to Stereomatical Propositions, formerly published by Rob. Anderson. Printed for Joh. Coniers 1669. in Octavo.*

IN this small Tract the Author reduceth his former Doctrine of *Gauging* to farther Practice, and illustrateth the same by Examples.

And first he supposeth the *Axis* of a *Pyramid, Cone, Sphere, Parabolical, and Hyperbolical Conoid*, and of a Figure of different *Bases*, which he calls a *Frustrum* of a *Prisme*, which if round, may resemble a Drinking Cup like an Horn, having its top squeezed into an *Elliptick* form, and the bottom remaining either a Circle, or be likewise compress'd; the said *Axis* to be divided into equal Segments, and Plains passing through those Segments erect to the *Axis*; to divide the above-mention'd Solids into divers Portions or Rings: and upon these Foundations, *viz.* That in the *Parabolical Conoid* the second differences of the Solid Contents of the whole Figures so divided are equal; but in the rest of these Solids their third Differences are equal: he hath suted his Examples to the *Axis* cut by the said Plains at 3 Inches distance from each other, shewing first the nature of the differences in hand, and then some easie ways to attain a first, second, and third difference; and how out of them to compute the several Capacities sought by Additions of Differences plac'd in several Columns. Lastly, He gives directions for the more easie Calculation of the second Segments of the *Sphere* and *Spheroid*.

But we must not omit to take notice, that this Author, speaking pag. 23. of such *Elliptick Solids*, whose *Bases* are unlike, asserts, That every such *Elliptick Solid* is equal to the *Frustrum* or *Truncus* of an *Hyperbolick Conoid*, the *Circular Bases* whereof are equal to the *Elliptick Bases* of the Solid propos'd; and the Height of the one *Frustrum* equal to the Height of the other: the Invention and Demonstration whereof argues good Knowledge in Geometry.

ERRAT. in N°. 46.

P. 928. l. 1. r. punctum D in B, ib. l. 28. r. fortissime omnium aget.

L O N D O N,

Printed by T. N. for John Martyn Printer to the Royal Society, and
re to be sold at the Bell a little without Temple-Bar, 1669.