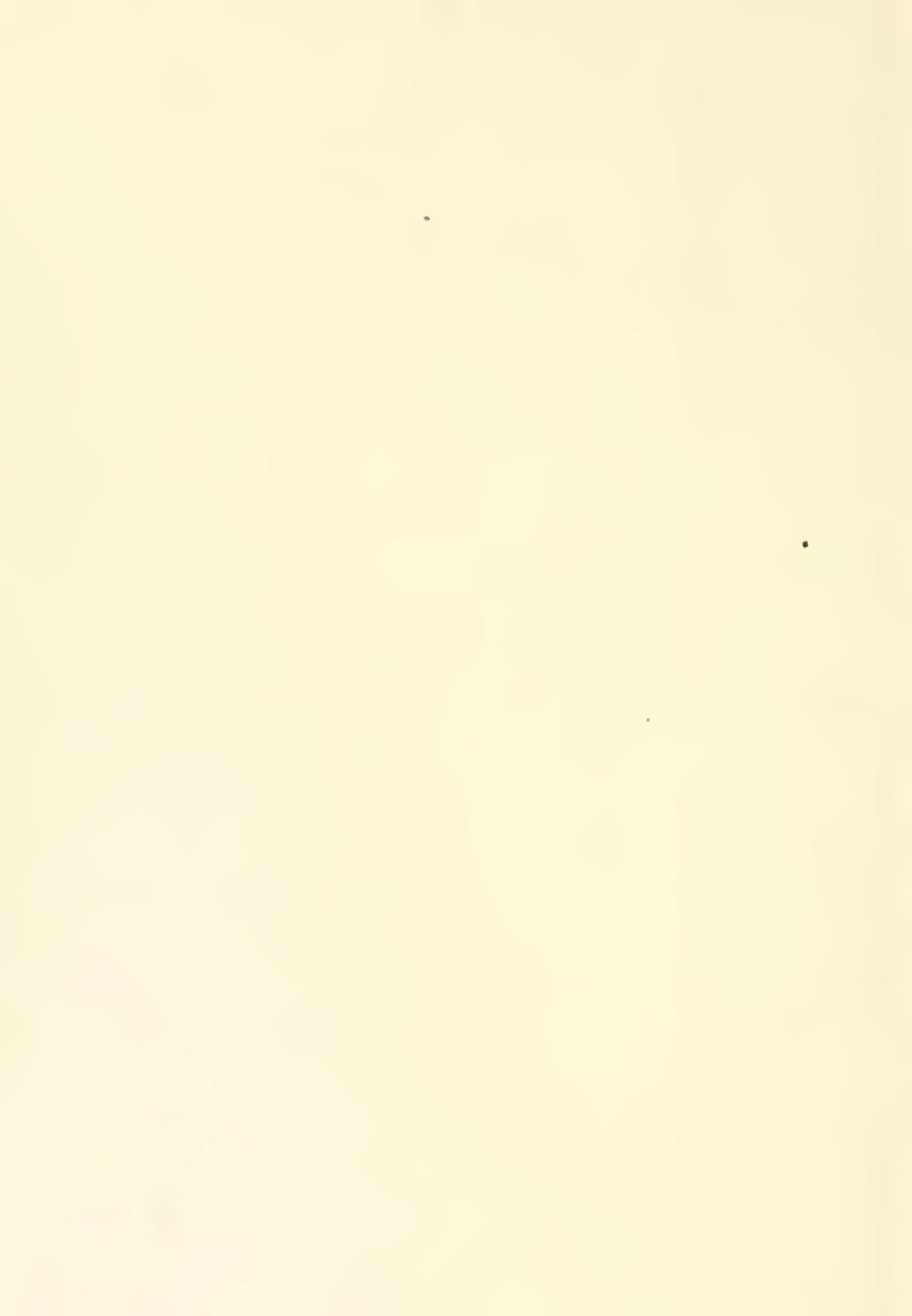


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THE WORKS OF
GEORGE DALGARNO.

X

THE WORKS OF
GEORGE DALGARNO
OF ABERDEEN.



REPRINTED AT EDINBURGH:
M.DCCC.XXXIV.



PRESENTED TO

THE MAITLAND CLUB

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HE first idea of reprinting the Works of GEORGE DALGARNO, as a private contribution to the Maitland Club, was suggested by the following passages in the writings of Mr. Stewart, which, coming from so high an authority, have not hitherto met with the attention they merit.

“ Of the Scottish authors,” says this eloquent Philosopher, in a note to his *Preliminary Dissertation* to the *Encyclopedie Britannica*, “ who turned their attention to metaphysical studies, prior to the union of the two Kingdoms, I know of none so eminent as George Dalgarno of Aberdeen, author of two works, both of them strongly marked with sound philosophy, as well as with original genius. The one published in London, 1661, is entitled, *Ars signorum, vulgo character universalis et lingua philosophica, qua poterunt homines diversissimorum idiomatum, spatio duarum septemanarum, omnia animi sui sensa (in rebus familiaribus) non minus intelligibiliter, sive scribendo, sive loquendo, mutuo communi-*

care, quam linguis propriis vernaculis. Præterea, hinc etiam poterunt juvenes, philosophiæ principia, et veram logicæ praxin, citius et facilius multo imbibere, quam ex vulgaribus philosophorum scriptis. The other work of Dalgarno is entitled, *Didascalocophus, or The Deaf and Dumb Man's Tutor.* Printed at Oxford, 1680. I have given some account of the former in the notes at the end of the first volume of the *Philosophy of the Human Mind*; and of the latter, in a *Memoir*, published in Vol. VII. of the *Transactions of the Royal Society of Edinburgh*. As they are now become extremely rare, and would together form a very small octavo volume, I cannot help thinking that a bookseller, who should reprint them, would be fully indemnified by the sale. The fate of Dalgarno will be hard indeed, if, in addition to the unjust neglect he experienced from his contemporaries, the proofs he has left of his philosophical talents shall be suffered to sink into total oblivion.”¹

In the notes to the *Philosophy of the Human Mind*, here referred to, Mr. Stewart, after quoting a letter from Leibnitz to Mr. Burnet of Kemney, dated in the year 1697, on the subject of a Real Character, and a Philosophical Language, remarks, that “the person mentioned by Leibnitz under the name of *M. Dalgarus*, was evidently George Dalgarno, a native of Aberdeen, and author of a small and very rare book, entitled *Ars Signorum, &c.* It is very remarkable that this work of Dalgarno is never (at least as far as I recollect) mentioned by Wilkins; although it appears from a letter of Charles II., prefixed to Dalgarno’s book, that Wilkins was one of the persons who had recommended him to the royal favour.”²

The following notice of Dalgarno by Mr. Stewart in his *Ac-*

¹ *Preliminary Dissertations to the Encyclopedia Britannica*, p. 284–5.

² *Philosophy of the Human Mind.* 4to. Vol. I. p. 552–3.

count of a Boy born Deaf and Blind, is more elaborate and interesting.³ “ After having thus paid the tribute of my sincere respect to the enlightened and benevolent exertions of a celebrated foreigner (Sicard), I feel myself called on to lay hold of the only opportunity that may occur to me, of rescuing from oblivion the name of a Scottish writer, whose merits have been strangely overlooked both by his contemporaries and by his successors. The person I allude to is George Dalgarno, who, more than a hundred and thirty years ago, was led by his own sagacity to adopt, *a priori*, the same general conclusion concerning the education of the dumb, of which the experimental discovery, and the happy application, have, in our times, reflected such merited lustre on the name of Sicard. I mentioned Dalgarno formerly, in a note annexed to the First Volume of the *Philosophy of the Human Mind*, as the author of a very ingenious tract entitled *Ars Signorum*, from which it appears indisputably that he was the precursor of Bishop Wilkins in his speculations concerning a Real Character, and a Philosophical Language; and it now appears to me equally clear, upon a farther acquaintance with the short fragments which he has left behind him, that, if he did not lead the way to the attempt made by Dr. Wallis to teach the dumb to speak, he had conceived views with respect to the means of instructing them, far more profound and comprehensive than any we meet with in the works of that learned writer, prior to the date of Dalgarno’s publications. On his claims in these two instances I forbear to enlarge at present; but I cannot deny myself the satisfaction of transcribing a few paragraphs in justification of what I have already stated, with respect to the remarkable coincidence between some of his theoretical deductions, and the practical results of the French Academician.

³ *Philosophy of the Human Mind.* 4to. Vol. III. App. p. 453-9.

“ I conceive there might be successful addresses made to a “ dumb child even in its cradle, when he begins *risu cognoscere matrem*; if the mother or nurse had but as nimble a hand, as “ commonly they have a tongue. For instance, I doubt not but “ the words *hand, foot, dog, cat, hat*, &c. written fair, and as often “ presented to the deaf child’s eye, pointing from the words to the “ things, and *vice versa*, as the blind child hears them spoken, “ would be known and remembered as soon by the one as the “ other. And as I think the eye to be as docile as the ear; so “ neither see I any reason, but the hand might be made as tract- “ able an organ as the tongue; and as soon brought to form, if not “ fair, at least legible characters, as the tongue to imitate and echo “ back articulate sounds.”—“ The difficulties of learning to read, “ on the common plan, are so great, that one may justly wonder “ how young ones come to get over them. Now, the deaf child, “ under his mother’s tuition, passes securely by all these rocks and “ quicksands.—The distinction of letters, their names, their powers, “ their order, the dividing words into syllables, and of them again “ making words, to which may be added Tone and Accent; none “ of these puzzling niceties hinder his progress.—It is true, after “ he has past the discipline of the nursery, and comes to learn “ grammatically, then he must begin to learn to know letters “ written, by their figure, number, and order,” &c. &c.

The same author elsewhere observes, that “ *the soul can exert her powers by the ministry of any of the senses: And, therefore, when she is deprived of her principal Secretaries, the Eye and the Ear, then she must be contented with the service of her lackeys and scullions, the other senses; which are no less true and faithful to their mistress, than the eye and the ear; but not so quick for dispatch.*”

I shall only add one other sentence, from which my readers

will be enabled, without any comment of mine, to perceive with what sagacity and success, this very original thinker had anticipated some of the most refined experimental conclusions of a more enlightened age.

“ My design is not to give a methodical system of grammatical rules ; but only such general directions, whereby an industrious Tutor may bring his deaf Pupil to the vulgar use and *ütz*, of a language ; that so he may be the more capable of receiving instruction in the *ütz* from the rules of grammar, when his judgment is ripe for that study : Or, more plainly ; I intend to bring the way of teaching a deaf man to read and write, as near as possible, to that of teaching young ones to speak and understand their mother-tongue.”

In prosecution of this general idea, he has treated, in one very short chapter, of *a Deaf Man’s Dictionary* ; and in another, of *a Grammar for Deaf Persons* ; both of them containing (under the disadvantages of a style uncommonly pedantic and quaint) a variety of precious hints, from which, if I do not deceive myself, useful practical lights might be derived, not only by such as may undertake the instruction of such pupils as Mitchell or Massieu, but by all who have any concern in the tuition of children during the first stage of their education.

The work from which these quotations are taken, is a very small volume, entitled “ *Didascalocophus*, or, The Deaf and ‘ Dumb Man’s Tutor, printed at the Theater at Oxford, 1680.” As I had never happened to see the slightest reference made to it by any subsequent writer, I was altogether ignorant of its existence, when a copy of it, purchased upon a London stall, was a few years ago, sent to me by a friend,⁴ who, amidst a

⁴ Francis Horner.—*Ed.*

multiplicity of more pressing engagements and pursuits, has never lost sight of the philosophical studies of his early years. I have been able to learn nothing of the author, but what is contained in the following slight notice, which I transcribe from Anthony Wood. “The reader may be pleased to know, that one “George Dalgarno, a Scot, wrote a book, entitled, *Ars Signorum*, “&c. London, 1661. This book, before it went to press, the “author communicated to Dr. Wilkins, *who, from thence taking a* “*hint of greater matter*, carried it on, and brought it up to that “which you see extant. This Dalgarno was born at Old Aber-“deen, and bred in the University at New Aberdeen; taught a “private grammar school with good success for about thirty years “together, in the parishes of S. Michael and S. Mary Mag. in “Oxford; wrote also, *Didascalocophus*, or The Deaf and Dumb “Man’s Tutor; and dying of a fever, on the 28th of August “1687, aged sixty or more, was buried in the north body of the “church of S. Mary Magdalen.” (Ath. Oxon. Vol. II. p. 506-7.)

The obscurity in which Dalgarno lived, and the complete oblivion into which his name has fallen, are not a little wonderful, when we consider that he mentions among the number of his friends Dr. Seth Ward, Bishop of Sarum; Dr. John Wilkins, Bishop of Chester; and Dr. John Wallis, Professor of Astronomy at Oxford. It is still more wonderful, that no notice of him is taken in the works either of Wilkins or of Wallis, both of whom must have derived some very important aids from his speculations.

This unfairness on the part of Wilkins, has not escaped the animadversion of one of his own biographers. “In the prefatory “epistle (he observes) to the *Essay towards a Real Character*, “Dr. Wilkins mentions several persons who assisted him in this “work, particularly Willoughby, Ray, and Dr. William Lloyd, and

“ others ; but it is remarkable, that he does not mention Dalgarno, “ and the more, because Dr. Wilkins’s own name is printed in the “ margin of King Charles II.’s letter prefixed to Dalgarno’s book, “ as one of those who informed his Majesty of Dalgarno’s design, “ and approved it, as a thing that might be of singular use to “ facilitate an intercourse between people of different languages; “ which prevailed with his Majesty to grant his said letters of “ recommendation to so many of his subjects, especially of the “ Clergy, as were sensible of the defectuousness of art in this “ particular.”—*Biog. Britan.* Art. Wilkins.⁵

That Dalgarno’s suggestions with respect to the Education of the Dumb, were not altogether useless to Dr. Wallis, will, I think, be readily admitted by those who take the trouble to compare his letter to Mr. Beverley (published eighteen years after Dalgarno’s treatise) with his *Tractatus de Loquela*, published in 1653. In this letter some valuable remarks are to be found, on the method of leading the dumb to the signification of words ; and yet, the name of Dalgarno is not once mentioned to his correspondent.

If some of the details and digressions in this note should be censured, as foreign to the principal design of the foregoing Memoir, I can only plead in excuse, my anxiety to do justice,

⁵ In Grainger’s Biographical History of England, mention is made of a still earlier publication than the *Ars Signorum*, entitled “The Universal Character, by which “ all Nations in the World may understand one another’s conceptions, reading out of “ one common Writing their own Tongue. By Cave Beck, Rector of St. Helen’s, in “ Ipswich, 1657.” This book I have never seen.

The name of Dalgarno (or Dalgarus, as it has been sometimes written) is not altogether unknown on the Continent. His *Ars Signorum* is alluded to by Leibnitz on various occasions, and also by Fontenelle in the *Eloge* of Leibnitz. His ideas with respect to the education of the Dumb, do not seem to have attracted any notice whatever. In fact, they were much too refined and enlightened to be duly appreciated at the period when he wrote.

even at the distance of a century, to the memory of an ingenious man, neglected by his contemporaries, and already in danger of being totally forgotten by posterity. To those whose curiosity may lead them to study his books, the originality of his conceptions, and the obvious application of which some of his principles admit to the peculiarities of the case now before us, will of themselves suggest a sufficient apology."

The preceding extracts exhaust all that is known of George Dalgarno, and of his writings. They are eminently calculated to excite curiosity regarding his speculations on the interesting subjects of a Real Character, and a Philosophical Language ; and, to those who take delight in tracing the history of Philosophy, even in her more obscure departments, no apology can be necessary for the present attempt to fulfil Mr. Stewart's generous wish, that the name of DALGARNO should be rescued from oblivion.

EDINBURGH, M.DCCC.XXIV.

Ars Signorum,

VULGO

CHARACTER UNIVERSALIS

ET

LINGUA PHILOSOPHICA.

Qua poterunt, homines diversissimorum Idiomatum, spatio duorum septimanarum, omnia Animis sua sensa (in Rebus Familiaribus) non minus intelligibiliter, sive scribendo, sive loquendo, mutuo communicare, quam Linguis propriis Vernaculis. Præterea, hinc etiam poterant Jurenos, Philosophie Principia, et veram Logicæ Praxin, citius et faciliter multo imbibere, quam ex vulgaribus Philosophorum Scriptis.

Authore Geo. Dalgarno, ——— hoc ultra.

Londoni,

Excudebat *J. Hayes*, Sumptibus Authoris,
Anno reparatae salutis, 1661.

Sh o d C A R O L O I

K A N E L *Safa*, *t_nn Sefap*,
s_ff Britannoi s_mma, Hibernoi,
Francoi; *t_nn Krumel s_ff*
T_vpu Siba Christoisa

Kanel S_vfu

KANELLI suna f_zf Nom, f_{mpomef} avvi f_{ma}, lul, Sava Kanel f_{nf} Kanelli famefa bred Nam fas L_zl; T_n lol-fas, lelilli punefi, L_zl famefu avvi f_{ma} ben Nom fas lelil; trim avvi f_ff kufu fhom krufu. Avvi f_{fa} f_ff krufu, tim, f_{p_zmu} t_n f_n-famu f_zf Temmu, lul, famefi Stenu tipo, f_zfo, t_n pomo. T_n f_un, tim f_zfu f_ff Stenu, lul-dan, Temmu t_n Tennu tim popo, f_un, tim f_zfu f_ff Kanel, lul-dan tim Kanel f_zf Kranelli tibo. Temmu famefi Stenu sefa, f_un, fhunu f_ff uvvi t_n f_zbbu, f_un; fas, avvi lola tim fof-sefa fh_zg Temu. Kanel S_vfa, lal Kanel L_zla fh_zfa f_{p_zfe} f_zlod L_zl Temu f_{fa}, lul, f_{p_zno} dan f_zpdammu fhuma f_{ba}: L_zl f_b-dan tifesa f_{p_zfu} L_zla, f_ume t_n pemre trunu L_zla safes_f t_ttu lola: T_n L_zl tube_fa, flam Trinnu L_zla, kranelli l_zla tibo, ponef_f Sagu L_zla Kana. St_vpu fhuma fisrefu Temu lola f_{ma}; t_n lolir famefu Tonu t_n St_vfu L_zla, t_n Tonu f_ff Stennu, t_n (lul tim f_n) Tonu f_ff Sava, pemo bred daddu brepa f_ff Nom. Lol-fas Kanel S_m-sefa, tupef_f Kafelli, Tibelli, t_n Temelli L_zla, t_zbes_f pipai fibu t_n sigu f_ff Temu lola; t_n lul-dan L_zl pemesa taggu f_ff lelilli fhop lela, sim-fodeso f_zlod Safel t_n Spznel, fos fatu f_ff f_{p_zppu} f_ff lelil. Lal trim tunefi St_vffu t_n St_vbbu; fhom, f_zf-f_vpu lela, lul, sefrefu lal flemef_f t_n fisref_f Temu lola

femo, sham skradu sif Sava, Szfu sif Lz! Kanel lala, sim-tipu sif Stenu lala, figu sif uvvi funa, tzn sibu sif Eiv lala. Lolirri tim shammu sama, sham lul, lal pebefi szpef; tzn lul-dan Sava fabefä lal sham lefirri, trim prebef; shzpef. Tzn slem lel-dan, lal tim,

Kanel Szf-szfa

Kanel Lzla krba

Georgoi Dalgarnoi.

CHARLES R.

WHereas We have been informed by the Testimonies of divers Learned Men* from both the Universities of Our Kingdom of *England*, concerning the great pains taken by *George Dalgarno*, in a Scholaftick and Literary Design, of an *Universal Character* and *Philosophical Language*; All of them approving and commanding his Discovery, judging it to be of singular use, for facilitating the matter of Communication and Intercourse between people of different Languages, and consequently a proper and effectual Means for advancing all the parts of Real and Useful Knowledge, Civilizing barbarous Nations, Propagating the Gospel, and encreasng Traffique and Commerce. We understanding moreover, by Certificates from severall credible Persons, that through the various Vicissitudes of Providence, he hath suffered the los of a considerble Estate, by reasom whereof, he is wholly disnabled from affording that Charge and Expence for the Effectual prosecuting of this Work, as the Nature of it requires.

We therefore, out of a tender consideration of the Premises, and for manifesting Our Good Will and Affection towards the promoting of Art, and the encouraging all such ingenious persons of Our Subjects, who shall attempt and Effect any thing tending to Publike Good; As We do Declare, that, We will Our Selves exprefs fome Token of Our Royal Favour, for the helping forward this so Laudable and Hopeful Enterprize; So also, Reflecting upon its Common and Universal usefulness, We do by these

* R. Love, D.D., J. Wilkins, D.D., J. Wallis, D.D., S. Ward, D.D., W. Dillingham, D.D.

Our Letters of Recommendation incite as many of Our Subjects (especially the Reverend and Learned Clergy) as are truly apprehensive and sensible of the defectiveness of Art, chiefly in this particular of Language; what great losſ Mankind is at there-through, how acceptable it will be before God, and praife worthy among Men, to Encourage and Advance thoſe waies of Learning, wherein the General Good of Mankind is intended; That ſuch would, as their Affections ſhall encline them, and their places enable them, put their helping hands to the bringing forth this (as yet) Infant Design, now ſticking in the Birth.

This will give juſt caufe to Our Posterity through ſucceeding Generations, while they are reaping the Fruit of Our Ingenuity and industry, to look back upon Us with Reverence; And from Our Example they will be provoked not to reſt upon what they ſhall have received from Us; but ſtill to be Endeavouring to proceed in a further repairing the Decayes of Nature, untill Art have done its laſt, or, which is moft probable, Nature ceafe to be, or be Renewed.

Given at Our Court at *IV Whitehal* this 26th of November, in the 12th Year of our Reign.

Will. Morice.

Lectori Philosopho.

JUDICIO TUO (LECTOR PHILOSOPHE) INVENTA HÆC MEA DE CONFUSIONIS LINGUARUM REMEDIO (QUANTUM FEIL. MALUM HOC ARTE REPARABILE EST) VISM
EST PRIUS SUBJICERE, QUAM INERTIS VULGI MANIBUS TERANTUR. LEGE, PERLEGE.
ET RELEGE. CAVE AUTEM NE INTER JUDICANDUM, NON SEPARANDA SEPARES, ID EST,
PARTEM LOGICAM ET GRAMMATICAM; FED UT SENTENTIAM AQUIUS FERAS, FINEM
ULTIMUM (COMMUNICATIONIS FACILITATEM) PRIMO RESPICE. EXPERIRE QUID VERI
CONTINEAT FENTENTIA EUJUSDAM VIRI DOCTI DE HÆC ARTE. TRIA MOMENTA EI
ASSIGNABAT. 1. DIXIT ARTEM HANC VIDERI PLANE IMPOSSIBILEM. 2. POSSIBI-
LEM QUIDEM FED VALDE DIFFICILEM. 3. VERO, MIRE ET SUPRA FIDEM FACILEM.
FORTE ERUDITE LEITOR, ANTEQUAM LIBELLUM HUNE IN MANUS SUMPFERAS, TIBI
VIDEBATUR HÆC ARS OMNINO FABULOSA ET IMPOSSIBILIS; SED EX IIS QUÆ HIC
DICTA FUNT, JAM VIDES POSSIBILEM, FED ADHUC VALDE DIFFICILEM: QUARE PROGRE-
DERE ADHUC ULTRA AD PRAXIN, EIQUE PAULOLUM DILIGENTER INTENDE, ET NIHIL
DUBITO QUIN VERITATEM TERTII MAXIMA EUM VOLUNTATE ET EMOLUMENTO PERCEPIES.
HOMINIBUS SCIOLIS QUI HOC UNICUM POSSUNT ALIORUM SCRIPTA CARPERE,
ARTIUMQUE PRIMA PRINCIPIA QUANTUM IN IPSIS EST FUNDITUS EVERTERE (DUM
TAMEN IPSI NIHIL PONUNT) MECUM SUBRIDE. AUT ARTIUM OMNIUM QUÆDAM
PRINCIPIA FUNT STABILIENDA, AUT OMNIS ARS RUITURA EST; MAXIME VERO IN ARTE
SIGNORUM, PRÆ ALIIS OMNIBUS, ARBITRIUM EST NECESSARIO ADMITTENDUM. PRAG-
MATICIS VERO, QUI FALCEM IN ALIENAM MESSLEM INJICERE FUNT PARATI, UT FESTI-
NENT LENTE, ET CAVEANT NE SIMUL EUM LABORIBUS, HONOREM ETIAM QUEM AM-
BIUNT PERELITENTUR, MECUM CONFULE. ABSIT AUTEM HÆC A ME JA&TANTER DICTA
FINT, QUASI EXISTEMAREM ME SOLUM HUIE SUSCEPTO PARREM: TANTUM ENIM

abest, meis viribus confidam, ut, per hæc ad omnes Doctos provocem qui Tra&ctatulum hunc in manus fument; quorum Ingenia, studia, otiumque et fecessus Cenfores idoneos fecerint; ut, si quæ laus, si quis honor, si quis Generis Humani amor, si quod studium Artes et Rem Literariam promovendi, si quæ denique Posterorum eura: Per omnia hæc Menti Generofæ chariflma, obteftor, rogo, flagito, obfcreo; Doctrinam hanc novam, jam quinque fere Annorum studio ad hanc maturitatem per du&tam, fevere (simul tamen candidate et sincere) examinent, probent; mihiq[ue] sua fenfa de ea quam citissime renuncient. Si enim in aliquo ad melius consulant, et Errorum meum non solum detexerint, fed sine majore Errore emenda- verint, promitto me Animo facile et grato eorum monitis obtemperaturum. Cumque expe&tandum non sit, unicum quemvis hominem, omnibus Notionibus Naturæ et Artis Nomina apta, Philosophice et secundum Rerum Naturas instituere posse; nisi prius earum accuratas Definitiones a variarum Artium peritis habeat: Vos igitur Viros Virtuosos et singularium Artium vere Magistros compello. Quisque de suo penu ad hanc Babelem restaurandam materiam minifret. En ja&ctum Fundamentum fatis am- plum et firmum: Non enim vel minimum dubito, quin omnes Notiones Natnrae et Artis ex Radicalibus hic positis fatis perspicue definiri possint: Hoe tamen unum intendite, ut Rerum Descriptiones, Differentias maxime Communes et notas exhibeant, et ab aliis rebus maxime distinguentes; idque quam paucissimis vocibus, ne voces hujus Linguæ ex iis componendæ in nimiam longitudinem excrescant. Homines Superflitiose nimis, suscep- tum hoc, Facinus Audax a Deo vetitum opinantes, ne audite. An Dens O. Hominibus libertatem indulxit, Carduos et Sentes ex agris era- dicandi? Errores autem ex Cœlesti Animorum Solo extirpare prohibuit? Absit! Ne credite. Deus ipse ejusque Principaliores Ministre (hic in Terris) Natura scilicet Ars, eadem Methodo in operando utuntur, id est, progrediendo ab imperfectoribus ad Perfectiora. Quid hinc de hac Arte concludam facile est colligere. Quantus autem sit futurus ejus fructus (præcipue si in Scholas introducatur ejus usus) in Posteris Seculis, vos Viros Doctos variis vestris conjecturis relinquo. Valete.

Geo. Dalgarno.

Alphabetum hujus Linguae Philosophiae. Singulae Literae in principio dictationis sunt Characteristicæ Notionum Genericarum in Tabulis, ut infra indicatur.

A	Ens, res
H	Substantia
E	Accidens
I	Ens Concretum ex Subst. et Accid.
O	Corpus
r	Spiritus
U	Concretum ex Corpore et Spiritu. 1. Homo
M	Concretum Mathematicum
N	Concretum Physicum
F	Concretum Artefactum
B	Accidens Mathematicum
D	Accid. Physicum Generale
G	Qualitas Sensibilis
P	Accidens Sensitivum
T	Accidens Rationale
K	Accidens Politicum
S	Accidens Commune, alias, servilis
R	Servilis, significat oppositionem
L	Servilis, significat medium inter extrema
V	Characterist. vocis numericæ.

Notæ Numericæ.

A	1	M	1	Vado 154
H	2	N	2	Ventum 32861
E	3	F	3	Vapulo 17604
O	4	B	4	Vel 30
r	5	D	5	Vendo 3254
U	6	G	6	Vetuit 33608
AI	7	P	7	Valili 10000
EI	8	T	8	Void 95
OI	9	K	9	Vestis 330
I	0	L	0	Verrere 333

Placuit Gratitudinis ergo, et ut alii incitentur ad Artem hanc Novam ulterius propagandum, eorum Nomina adscribere, Quorum munificentia (eum meis laboribus) Ars haec a primo Inventionis femine ad hanc maturitatem crevit, jamque Lucem Publicum videt. Horum nemo infra summam unius Librae Anglicanæ, nemo supra decem, largitus est.

<i>R. Boile</i> Com. a Corke. Fat. German.	<i>Whittle</i> Armig.
<i>G. Morice</i> Baronet Secret. Regius.	<i>Baccow</i> Armig.
<i>C. Culpeper</i> Baronet.	<i>Gold</i> Armig.
<i>J. Keate</i> Baronet.	<i>J. Sparrow</i> Armig.
<i>G. Crook</i> Baronet.	<i>L. Fogge</i> T. B.
<i>T. Dillingham</i> T. D.	<i>S. Byfield</i> A. M.
<i>G. Dillingham</i> T. D.	<i>J. Tillotson</i> A. M.
<i>J. Wilkins</i> T. D.	<i>Cooper</i> A. M.
<i>S. Ward</i> T. D.	<i>Staughton</i> A. M.
<i>H. Wilkinson</i> T. D.	<i>Floyd</i> A. M.
<i>F. Walsel</i> T. D.	<i>R. Cumberland</i> A. M.
<i>R. Whichcoat</i> T. D.	<i>T. Branker</i> A. M.
<i>J. Bathurst</i> M. D.	<i>F. Lodwick</i> Civ. Lond.
<i>G. Pettie</i> M. D.	<i>E. Bale</i> Civ. Lond.
<i>A. Morgan</i> M. D.	<i>T. Slater</i> Civ. Lond.
<i>J. Stock</i> Armig.	<i>D. Henchman.</i>

LEXICON GRAMMATICO-PHILOSOPHICUM,

SEU

Tabulæ Rerum, et Notionum omnium Simpliciorum, et Generaliorum, tam Artefactarum quam Naturalium, Rationes, et Respectus communiores. Methodo Prædicamentali ordinatas, complectentes: Quibus significandis. Nomina, non Casu, sed Arte, et Confilio, servata inter Res et Signa convenientia Analogica, instituuntur. Ex quibus, Rerum et Notionum aliarum omnium magis Complexarum et specialorum Nomina, vel Derivatione, vel Compositione, in una vel pluribus vocibus, per Regulas quaefam Generales et certas, secundum Analogiam Logico-Grammaticam, formantur; Ita ut Nomina sic formata, Rerum Descriptiones ipsarum Naturæ consentaneas, contineant.

Av Ens, Res	
Hv Substantia	
Ev Accidens	
Iv Ens completum, vel concretum	
Ov Corpus	
Yv Spiritus	
Vv Compositum; id est, Homo.	
Meis Concretum Mathematicum.	

MeiM Species simplices.

mam <i>punctum</i>
m̄m <i>linea</i>
m̄m <i>superficies</i>
m̄m <i>solidum.</i>

MeiB Figura.

mab <i>circulus</i>
mzb <i>sphæra</i>

meb <i>spira</i>
mib <i>cubus</i>
mob <i>conus</i>
mzb <i>cilindrus</i>
mmb <i>piramis.</i>

Partes Figurarum.

ab <i>basis r. cacumen</i>
zb <i>latus r. angulus</i>
eb <i>perimetrum r. area</i>
ib <i>axis r. polus</i>
ob <i>gumphus r. impages.</i>

Neis Concretum Physiscum.
NeiMNeiF Inanimatum.
NeiM Simpler.

nam <i>cælum</i>
nzm <i>ignis</i>
nem <i>acer</i>
nim <i>aqua</i>
nom <i>terra.</i>

Partes Coeli.

as *stella*
ar *luna*
al *sol.*

Partes ignis.

zs *fumus* r. *flamma*
zr *cinus* r. *fuligo.*

Partes aeris.

es *nubes*
er *ventus.*

Partes aquae.

is *mare* r. *fluvius*
ir *fons* l. *palus* r. *rivus.*

Partes terrae.

os *continens* r. *insula*
or *mons* l. *planities* r. *vallis*
ol *carea* r. *rupes.*

NeiN Meteo^{zon}.

nan *ignitum*
nnn *aerium*
nen *aqueum*
nim *terrenum.*

NeiF Minerale.

naf *medium*
nrf *lapis*
snf *lapis pretiosus*
nef *metallum.*

NeiDBeiG Planta.

Sneib *imperfecta.*

NeiBeiD Herba.**NeiB Vesca.**

nab *besticæ vesca*
nzb *homini in folio*

neb *in radice*
nib *in fructu*
nob *legumen*
nob *frumentum*
nub *condimentum.*

SneiBeiD Miscellanea.

snab *marina*
snzb *lacustris*
sneb *junci et arundines*
snib *convolvula*
snob *spinosa*
snub *filices*
snub *scabiosa*
snad *tomentosa*
snzd *umbellifera*
sued *corimbifera*
snid *laetaria*
snod *nervosa*
snud *linosa*
snud *semper viva.*

neid Flore Insignis.

nad *bulbosa*
nzd *non bulbosa.*

neig Lignosa.

nag *suffrutex*
nrg *frutex spinosus*
neg *semper viridis*
nig *non spinos. seminif.*
nog *baceifernus.*

s neig Arbo^z.

snag *sterilis*
snrg *glandifera*
sneg *conifera*
suig *nucifera*
snog *prunifera*

snug pomifera
snng acinifera.

Partes Plantae pereunes.

ad succus
zd radix l. truneus r. ramus
ed cortex l. caro r. medulla
id geniculum r. internodium
od spina r. lanugo
vd gummi r. resina.
nd surlculus.

Partes Annuae.

ag folium l. flos r. fructus
rg pappus
eg calix
ig palea r. siliqua
og spica
vg arista
ug putamen r. nucleus.

NeiPTeiK Brutum

neipeit imperfectum
SNeiPTeiK Exangue

s nei p Aerium Volatile.

snap detectipennis
snrp bipennis
snep vaginipennis.

s nei t Aqueum.

snat molle apodum
snzt molle pedatum
snet crustaceum caudatum
smit crustaceum rotundum
snot testaceum turbinatum in anfrac-
tum
snvt testac. turb. in orbem
snut conchæ.

s nei k Terrestre.

snak apodum
snk paucipedatum
snek multipedatum

NeiPTeiK Sanguineum.

NeiP Aerium id est, Avis.

nap carnivora
nnp nocturna
nep canora
nip domestica
nop pulveratricea
nvp aquatica
nvp palmipes.

Partes Avis.

spe penna r. pluma
spi ala
spo crista.

n eit Aqueum id est Piscis.

nat squamosus
nzt læris
net cartilagineus
nit planus
not fluviaialis
not cæte.

Partes Piscis.

ot branchia
vt squama r. pinna.

neik Terrestre.

nak oeiparum
njk solidipes
nek bisulcum
nik multifidum majus
nok multifidum minus
nuk sub terra degens

nuk *serpens*
neiteik *amphibion*
Partes Bruti in Genere.

eiM Excrementitiae.

am *crinis* r. *unguis*
zn *cholera* r. *melancholia*
em *sterens* r. *urina*
im *mucus*
om *canda* r. *juba*
vn *cornu* r. *ungula*.

eiN Partes Fluidae utiles.

an *humor* r. *pituita*
zn *sanguis* r. *spiritus*
en *lac* r. *semen*
in *modulla* r. *cerebrum*
on *chylus*.

eiF Spermaticae.

af *os* r. *cartilago*
zf *cutis* r. *membrana*
ef *caro* r. *adeps*
if *vena* r. *arteria*
of *nervus* r. *fibra*
zf *ligamentum*.

meis Caput r. Collum.

ma *cranium* r. *facies*
m_n *oculus* r. *aurus*
me *frons* r. *occiput*
mi *cilium*
mo *tempora*
mv *nasus*.

neis Os.

na *dens* r. *lingua*
nn *gingiva*
ne *palatum*

ni *labium* r. *mentum*
no *bucca*
nv *gula*
nu *gurgulio*.

feis Truncus.

fa *pectus*
fn *mamma* r. *umbilicus*
fe *scapula* r. *cora*
fi *costa* r. *spina*
fo *venter* r. *lumbus*
fu *nates*.

s meis Artus.

sma *manus* r. *pes*
sm_n *brachium* r. *femur*
sme *cubitus* r. *tibia*
smi *cubitus* r. *genu*
smo *carpus* r. *calle*
smv *manus* r. *pes parvus*
smu *digitus* r. *digitus pedis*.

s neis Partes Organicae ventris infam.

sna *oesophagus* l. *ventriculus* r. *intestina*
sn_n *peritoncum* l. *omentum* r. *mesenterium*
sne *epar* r. *testes*
sni *lien* r. *fel*
sno *vesica* r. *ren*
smv *uterus* r. *virga*
smu *fætus* r. *ovum*.

FLeis Partes mediae habitatis.

fla *diaphragma*
fl_n *pulmo*
fle *cor.*

Feis Coneretum Artefactum.
 FeiMNeiF Neceſſarium.
 FeiM viſus et Amiſus.
 FLeiM **Vivus.**

flam *panis*
 fl̄m *potus*
 flem *jus Condimentum*
 flim *butyrum*
 flom *casens*
 flum *fartum*
 flum *artocreas.*

FReiM Amictus.

fram *filum*
 fr̄m *vitta*
 fren *pannus*
 frim *puleinar*
 from *saceus*
 from *ornamentum.*

FeiN Aedificium.

fan *domus*
 f̄n *navis*
 fen *pons.*

Partes Aedificii Generaliores.

ap *tignum r. asseres.*
 zp *later r. cæmentum*
 ep *columna r. arcus*
 ip *cancelli*
 op *scala*
 zp *vallum r. agger*
 up *obex.*

eiK Partes Specialiores.

ak *ostium r. fenestra*
 nk *caminus r. fornax*
 ek *grundia*

ik *vestibulum r. postica*
 ok *contignatio*
 uk *transtra l. teguli r. capreoli*
 uk *tectum l. paries r. pavimentum.*

Partes Navis.

at *malus r. transenna*
 zt *clavus r. anchora*
 et *remus r. velum.*

Suppeller Varia.

fam *canalis*
 f̄m *funis*
 fem *theca*
 sim *acicula*
 fom *acus*
 fom *forfex*
 fum *peenvia.*

Frein Suppeller Domestica.

fran *mensa*
 fr̄n *candela*
 fren *vas*
 frin *cathedra*
 fron *sporta*
 fr̄n *area*
 frun *lectus.*

flein Suppeller Rustica.

flan *aratum*
 fl̄m *ocea*
 flen *ligo*
 flin *currus.*

fei F ad Communicandum.

faf *atramentum*
 fzf *charta*
 fef *liber*

FeiBDeig Voluptuarium.

fei b **Musicum.**

fab *organum pneumaticum*

fz**b** *lyra*

feb *cymbalum*

fib *pandura*

fob *tympana*

fob *tuba*

fab *campana.*

fei d **Oculum Delectantia.**

fad *todus*

fz**d** *pictura*

fed *spectaculum.*

FeiPTeiK Perniciofa.

fei p **Arma.**

fap *gladius*

fip *bombarda*

fep *arcus*

fip *sagitta telum*

fop *hasta*

fop *elypeus.*

AIV Concretum Spirituale

EIV Anima

OIV Angelus

Vv Homo seu Concretum

 Compositum.

DEUS Sava, id est, Causa

 prima.

TABULA ACCIDENTIUM.

Seis Accidens Commune.

SAs **Causa.**

sam *efficiens* l. *medium* h. *finis*

san *materia* h. *forma*

saf *auxilium* l. *permisso* h. *impeditum*

sab *instrumentum*

sad *preparans* h. *conservans*

sag *exemplum*

sap *occasio*

sat *meritum*

sak *fortuna* h. *consilium*

SHs **Modi Existendi.**

szm *independens* h. *dependens*

szn *simplex* h. *compositum*

srf *perfinere*

szb *salus* h. *periculum*

szd *permanens* h. *mutabile*

sg habere h. *carere*

sp vivere h. *mori*

st vices

sk *ordinarium* h. *extraordinarium.*

SEs **Modi Agendi.**

sem *incipere* l. *continuare* h. *finire*

sen *repetere*

sef *potentia*

seb *debere*

sed *oportere*

seg *expedire*

sep *facile* h. *difficile*

set *sotere habitus*

sek *spontaneitas* h. *violentia.*

SI s **Perfectio.**

sim *bonum* l. *indifferens* h. *malum*

sin *pulchrum* h. *deforme*

sif *purum* h. *impurum*

sig *utile* h. *noxium*

sip *jucundum* h. *molestum*

sit *aptum* h. *ineptum.*

SOs Consentanea r. Dissentan.

som *idem* l. *diversum* h. *oppositum*
 son *respectivum* h. *absolutum*
 sof *privativum* h. *positivum*
 sob *consistens* h. *inconsistens* seu *contradictorium*
 sod *actio* h. *passio*
 sog *subjectum* h. *adjunctum*
 sop *actus* l. *medium* h. *objectum*
 sor *substantia* h. *circumstantia*.

Srs Gradus Comparationis.

som *valde* l. *mediocriter* h. *parum*
 son *magis* l. *æque* h. *minus*
 sof *maxime* h. *minime*
 sob *prius* l. *simil* h. *posterior*
 sod *excessus* l. *satis* h. *defectus*.

SVs Relatio Numeri.

Sum *unitas* h. *multitudo*
 sun *totum* h. *pars*
 suf *reliquum*
 sub *proprio*
 sud *ordo*
 sug *commune* h. *proprium*.

Beis Accidens Mathematicum.

BAs Affectiones primæ.

bam *longum* r. *breve*
 ban *latum* r. *augustum*
 baf *profundum* r. *breve, depresso*
 bab *rectum* r. *curvum*
 bad *continuum* r. *discretum*
 bag *concavum* r. *convexum*
 bap *planum* r. *gibbosum*.

BHS Positio.

bzm *perpendiculum* l. *inclinans* r. *ja-
cens*
 bzn *parallelum* l. *secans* r. *trans-
versum*
 bzf *rectus* r. *obliquus*
 bzb *acutus* r. *obtusus*
 bzd *incideus* r. *refractus*
 bng *directus* r. *reflexus*
 bnp *supinus* r. *pronus*.

BEs Situs.

bem *distantia* r. *contiguitas*
 ben *supra* r. *infra*
 bef *ante* r. *post*
 beb *dextra* r. *sinistra*
 bed *extra* r. *intra*
 beg *circundans*
 bep *extremum* r. *medium*.

Deis Physicum Generale.**DAs Materne Communia.**

dam *motus* r. *quies*
 dan *tempus* r. *æternitas*
 das *praeteritum* l. *præsens* r. *futurum*
 dab *novum* *inrenis* r. *antiquum*
 dad *locus*
 dag *plenum* r. *racuum*
 dap *præsentia* r. *absentia*.

DHS Modi Motus.

dzm *gravitas* r. *levitas*
 dzu *ceteritas* r. *tarditas*
 dzf *conatus*
 dzb *vis*
 dzd *sustinere* r. *inniti*
 dng *cedere* r. *resistere*

DEs Motus Simpler.

- dem *flectere*
den *iacere*
def *verttere*
deb *trahere*
ded *eadere r. surgere*
deg *tollere r. deponere*
dep *portare*
dek *contrahere r. dilatare.*

DIs Motus cum Contactu.

- dim *concursum*
din *frieatio*
dif *terere*
dib *premere*
did *pulsio r. rulsio*
dig *percutere*
dip *sigillare, imprimere*
dit *tegere*
dik *pnugere.*

DOs Motus Separans.

- dom *scindere*
don *frangere*
dof *lacerare*
dob *forare*
dod *solvare r. ligare*
dog *aperire r. claudere*
dop *plieare r. explicare*
dot *spargere r. colligere.*

Drs Motus Retentio.

- dvm *haerere*
dvn *tenere*
dxf *prehendere.*

Geis qualitas sensibilis.

GAs Tactus.

- gam *calor r. frigus*

- gan *humiditas r. siccitas*
gaf *densitas r. rarius*
gab *durities r. mollities*
gad *erastitas r. subtilitas*
gag *arriditas r. lubricitas*
gap *lentor r. friabilitas*
gat *asperitas r. laevitas*
gak *fluiditas r. consistentia.*

GHS Sabor.

- gzm *dulee r. amarum*
gzn *pingue r. austерum*
gxf *insipidum r. salsum*
gzb *aere r. acidum.*

GEs Odor.

- gem *fragrans r. factidus*
gen *graveolentia.*

GIs Sonus.

- gin *articulatus r. confusus*
gin *echo*
gif *acutus r. gravis*
gib *fortis r. debilis*
gid *clarus r. obseurus*
gig *asper r. æquabilis.*

GOs Color.

- gom *lux r. tenebræ*
gon *diaphanum r. opacum*
gof *album r. nigrum*
gob *flavum r. cœruleum*
god *rubrum r. viride*
gog *pallidum r. purpureum*
gop *cæsium r. fuscum.*

**Grs Communes Affectiones
mistorum.**

- gom *mixtio*

g_{vn} *fermentatio*
 g_{vf} *temperamentum*
 g_{vb} *coneretio*
 g_{vd} *coocoetio*
 g_{vg} *alteratio*
 g_{vp} *generatio r. corruptio.*

G_Vs **Affectiones Vegetabiles.**
 gum *nutritio r. fames*
 gun *fertilitas r. sterilitas*
 guf *pallulare*
 gub *crescere r. decrescere*
 gud *florere r. marcescere*
 gug *sanitas r. morbus*
 gup *maturitas r. immaturitas.*

P_Es **Accidentia Sensitiva.**

P_As **Generaliora.**

pam *spirare*
 pan *vocem edere*
 paf *edere r. bibere*
 pab *vigilare r. dormire*
 pad *sexus*
 pag *mas gignere r. fæmina*
 pap *libido*
 pat *concipere r. parere*
 pak *educare.*

P_Hs **Motus Animalis.**

pzm *volare*
 pzn *natare*
 pzf *serpere*
 pzb *gradiri*
 pzd *ire r. venire*
 pzc *saltare*
 pzp *frugere r. sequi*
 pzt *ducere*
 pzk *discumbere r. surgere.*

P_Es **Sensus Interni.**

pem *cognoscere*
 pen *memoria*
 pef *phantasia*
 peb *appetitus*
 ped *roluptus*
 peg *providentia r. experientia.*

P_Is **Excellatio Naturalis.**

pim *simplicitas r. sagacitas*
 pin *ferus r. mitis*
 pif *gravis l. levis*
 pib *constans r. mutabilis*
 pid *affabilis r. morosus*
 pig *sobrietas r. affectatio*
 pip *diligentia r. ignavia*
 pit *crudelitas r. misericordia*
 pik *gratitudo.*

P_Os **Passiones Principales.**

pon *admiratio*
 pon *amor r. odium*
 pof *spes r. metus*
 pob *gaudium r. lætitia*
 pod *ira r. patientia*
 pog *pudor r. gloriatio*
 pop *œstimoatio r. contemptus*
 pot *animositas*
 pok *liberalitas r. parsimonia.*

P_rs **Passiones minus Principales.**

pom *pænitentia*
 pon *imitatio*
 pof *zelus*
 pob *invidia r. commiseratio*
 pod *vindicta*
 pug *consternatio*

p_{op}*p adulatio*
 p_{ot}*aemulatio*
 p_{uk}*concupiscentia.*

PVs Passionum Affines.

pum *curare*
 pun *expectare*
 puf *observeare*
 pub *cavere*
 pud *attendere*
 pug *simulare*
 pup *suspicio*
 pnt *audere.*

SPAs Effectus Passionum.

Spam *ridere r. flore*
 span *canere r. plorare*
 spaf *ludere*
 spab *quærere*
 spad *provocare*
 spag *placere r. offendere*
 spap *lis r. concordia*
 spat. *insidiari*
 spak *fallere.*

SPBs Alii Effectus.

spzm *quærere*
 spzu *invenire r. perdere*
 spzf *offerre r. acceptare*
 spzb *tradere r. recipere*
 spzd *sumere r. dimettere*
 sprg *luctari*
 spzp *laborari r. otiali*
 spzt *lassitudo.*

Teis Accidens Rationale.

TAs Actus Intellectus primi.
 tam *ingenium*
 tan *conscientia*

taf *curiositas*
 tab *apprehensio perceptio*
 tad *astensus r. distensus*
 tag *judicium*
 tap *discursus*
 tat *meditatio*
 tak *machinatio.*

THs Ex Primitis Ortis.

t_m *supponere r. inferre*
 t_n *addere r. subducere*
 t_f *multiplicare r. dividere*
 t_b *probare*
 t_d *comparare*
 t_g *mensurare*
 t_p *conjicere*
 t_t *includere r. excludere.*

TEs Habitus Intellectuales.

tem *ars*
 ten *scientia*
 tef *sapientia*
 теб *opinio*
 ted *intelligentia*
 teg *discretio.*

TIs Intellectus Expressio.

tin *affirmare r. negare*
 tin *loqui r. scribere*
 tif *interpretari*
 til *doere r. discere*
 tid *interrogare r. respondere*
 tig *narrare*
 tip *fama*
 tit *definire r. distinguere*
 tik *restringere r. ampliare.*

TOs Signum.

tom *litera l. syllaba r. dictio*

ton *nomen* r. *casus nominis*
 tof *figura*
 tob *genus* l. *species* r. *individuum*
 tod *propositio* r. *oratio*
 tog *prosa* r. *carmen*
 top *periodus* r. *accentus*
 tot *sectio caput*
 tok *regula* r. *exceptio*.

TRs Voluntas.

tum *libertas* r. *coactio*
 tñm *deliberatio* r. *determinatio*
 tñf *consensus* r. *dissensus*
 tñb *virtus* r. *vitium*
 tñd *electio* r. *rejectio*
 tñg *optare*
 tñp *credere* r. *diffidere*
 tñt *suscipere*.

TVs Voluntatis Expressio.

tum *suadere* r. *dissuadere*
 tun *petere* r. *deprecari*
 tuf *benedicere* r. *maledicere*
 tub *hortari* r. *reprehendere*
 tud *laudare* r. *vituperare*
 tug *minari* r. *consolari*
 tup *imperare* r. *obedire*
 tut *consulere*.

STeis Economicum.

STAs Relatio Florum.

stam *ceremonia*
 stan *civilitas* r. *rusticitas*
 staf *salutare* r. *valedicere*
 stab *jocare* r. *irridere*
 stad *comitari*
 stag *visitare*
 stap *tractare*
 stat *congratulari*.

STHS Variae Denominationes

Personarum et Rerum.

stnm *superior* l. *æqualis* r. *inferior*
 stn *publicus* r. *privatus*
 stnf *nobilitas* *honor* r. *plebeitas*
 stnb *divitiae* r. *paupertas*
 strd *valor* *preium*
 strg *lucrum* r. *damnum*
 strp *sumptus*
 stnt *merces*
 stnk *merx*.

STEs Relatio Societatis.

stem *familia*
 sten *natio*
 stef *maritus*
 steb *cognatus* r. *affinis*
 sted *proximus* r. *peregrinus*
 steg *hospes*
 step *familiaris*
 stet *amicus* r. *hostis*
 stek *creditor* r. *debitor*.

STIs Modi Acquirendi r. Teneendi Dominium.

stim *haereditatio*
 stin *legatio*
 stif *donatio*
 stib *possessio*
 stid *habitatio*
 stig *præscriptio*.

STOs Contractus.

stom *tractare*
 ston *permutare*
 stof *emere* r. *vendere*
 stob *locare* r. *conducere*
 stod *deponere*

stog sponzionem facere
stop accommodare.

**STrs Modi Obligandi r. Dis-
solbendi.**

stom promittere r. præstare
stun stipulare
stuf pignorare
stvb fidejubere
stvd solvere
stog acceptillare
stop condonare
stut compensare.

Keis Politicum.

KAs Relatio Officii.

kam dominus r. servus
kan rex r. subditus
kaf clericus r. laicus
kab tutor r. pupillus
kad legatus
kag dux r. miles
kap consiliarius.

**Khs Relatio Officii in
Judicis.**

kzm judex r. litigans
kzn patronus r. cliens
kzf actor r. rens
kzb testis
krd officialis.

KEs Judiciorum Materia.

kem res r. persona
ken actio causa
kef jus r. factum
keb lex
ked titulus.

KIs Partes Litigantium.

kim citare r. apparere
kin allegare r. probare
kif causam agere
kib accusare r. excusare
kid appellare r. submittere
kig confessio.

KOs Partes Judicis.

kom decernere
kon absolvare r. dammare
kof punire r. parcere
kob proscribere
kod arrestare
kog incarcerare
kop confiscare.

Krs Delicta.

kum injuria
kvn furtum
kuf fornicatio
kvb rebellio
kvd factio
kvg hæresis
kvp crimen falsi
kvt proditio
kvk incantatio

KUs Bellum.

kum invadere r. defendere
kuu exenbare
kuf obsidere
kub præliari
kud induciæ
kug captivare
kup spoliare
kut vincere r. dedere.

SKAs Religio r. Supersticio.
 skam gratia r. natura
 skan felicitas r. miseria
 skaf colere r. profanare
 skab jurare
 skad orare r. laudare
 skag sacrificium
 skap sacramentum
 skat mysterium
 skak miraculum.

Particulae Pronominatales.

lal ego
 lrl tu
 lel ille
 lol hic
 lrl ipse
 lul qui.

Flexiones Grammaticae : Singula Exempla pro Regulis habentur nullam exceptionem patientibus.

Sim bonus Radix, in Oratione Particula.

slim indifferens medium
 sim malus oppositum
 simu bonitas
 simmu bonitates.

Adjectiva Varia.

pone amans activum
 pono amatu passivum
 Simo bonus neutrum
 ponemp amorosus et ax
 ponomp amabilis

ponomb amandus
 ponemb amaturus

Gradus Comparationis.
 simam valde bonus
 siman mediocriter bonus
 simaf parum bonus
 simab melior
 simad æque bonus
 simag minus bonus
 simap optimus
 simat mediocriter bonus
 simak minime bonus.

Flexiones Temporis et Modi.
 ponre facio amare
 ponesa amavi
 ponesz amaveram
 ponese amabam
 ponesi amo
 poneso amato
 poneso amator (imperative)
 poneso amare
 poneso amari
 ponesai amanter
 ponompai amabiliter.

Alia Derivativa Compendii Causa.

ponel persona amans
 sunilli omnes personæ
 ponor amatum vel res amata sumirri
 omnia vel res omnes
 nzfim magnus lapis
 nzfif lapillus
 nzfind cumulus lapidum — oi Evticum;
 Angloi Gallois.

Etymologia Præcipuarum
Particularum.

Ab sod <i>sam, bem</i>	interdum <i>shundan</i>
ac <i>t<small>f</small></i>	interim <i>luldan, leldan, draf</i>
ad <i>shod, brem</i>	intra <i>bred</i>
adhuc <i>slem, subdan</i>	invicem <i>s<small>n</small>t, sum, sum</i>
aliquis <i>sum shun</i>	ita <i>tim</i>
an <i>tid</i>	iterum <i>seu, v<small>n</small></i>
ante <i>bef</i>	item <i>t<small>f</small></i>
apud <i>bem, shumbem</i>	juxta <i>brem, shumbem, slvn, sos</i>
at <i>slom, trf trimshaf</i>	Magis <i>svn.</i>
aut <i>tr<small>b</small>, stom.</i>	Nam <i>sas, t<small>f</small>.</i>
Circum <i>beg</i>	ne <i>trim</i>
citra <i>lolnb, shr</i>	nimir <i>svd</i>
contra <i>shom</i>	nimir-parum <i>svd</i>
coram <i>bef m<small>ss</small>i</i>	non <i>trim</i>
cum <i>slb, dap, slam, sab</i>	nunc <i>loldan.</i>
cur <i>lulsas.</i>	Ob <i>sham, sas, shom</i>
De <i>sr<small>f</small>, shop</i>	omnis <i>sun.</i>
deinde <i>shubdan, shubsud</i>	Per <i>sod, sam, sab, sag, slam, bren, bln</i>
denique <i>shubapdan</i>	post <i>shab, bref</i>
deorsum <i>b<small>ns</small>bren.</i>	prae <i>svn, bef</i>
E ex <i>san, bed</i>	praeter <i>svn, brn</i>
ergo, <i>lelsas, trm</i>	praeterea <i>t<small>f</small>, svn, shab</i>
et <i>t<small>f</small></i>	pro <i>snt sos, bef svb</i>
etiam <i>t<small>f</small></i>	prope <i>shumbem, sufshun, shomsnf</i>
etsi <i>t<small>m</small></i>	propter <i>sham, sas, shumbem.</i>
extra <i>bed.</i>	Quam <i>svs t<small>f</small>g</i>
Fere <i>svfshun, svmshv</i>	quasi <i>slvn, ses</i>
forte <i>sak.</i>	qui <i>vel quis lul</i>
Hie <i>loldad.</i>	quoque <i>t<small>f</small>, slvn.</i>
Jam <i>loldan</i>	Satis <i>slvd</i>
ideo <i>lelsas</i>	sed <i>shom, trf</i>
illuc <i>leldad</i>	secundum <i>sos shumbem</i>
in <i>bred, dan</i>	sine <i>shr, drap, sof</i>
inter <i>bem, brey, g<small>um</small></i>	simul <i>slb</i>
	sub <i>dzd, shab, bren</i>
	super <i>drnd, bren</i>
	sursum <i>brsben</i>

supra ben.
 Tam *sl̩n*, *loll̩s*, *lelbes*
 tamen *trimshaf*, *tr̩m*
 tandem *sh̩b*, *dan bam*
 tenus *b̩s brem*
 trans *br̩m shomieb*.
 Versus *b̩s*
 vel *tr̩b*
 vix *shep*.
 illus *av*
 ut *sham*, *sl̩n*.

Oratio Dominica.

Pagel lalla lul tim bred Namni, 1.
Tofu lzla skamroso. 2. *Kanu lzla pr̩deso*. 3. *Tv̩su lzla samoso ben Nommi*, *sl̩n ben Nammi*. 4. *Stifeso shod lalli loldanve, flamu lalla danvesa*. 5. *St̩peso shod lalli strekku lalla, sl̩n, lalli st̩pesi shod strekkel lalla*. 6. *Trim p̩teso lalli tr̩dos̩ shom, sobrezo lalli sod shimu; sas, Kanu Sefu, tr̩nu tim lzla, loldan tr̩f sundan*. T̩poso.

C A P. I.

DE PRIMIS SIGNORUM ELEMENTIS, SPECIATIM VERO DE
SONIS SIMPLICIBUS.

ARTEM primam maximeque necessariam, *Artem* scil. *Signorum*, hucusque neglectam, alias vero (quantum fine hac poterant) ingeniose et laboriose exultas, inertiae genus humanum accusabo? Anne potius Numinis speciali Decreto, Artem hanc tantas in rebus humanis mutationes portentem, in ultima Mundi tempora reservante, excusabo? Artem igitur hanc ab aliis non inventam, mihi vero vere repertam patefacturus, a primis ejus Elementis *Literis* sc. exordium ducam; earumque Philosophiam paucis et perspicueradam.

Optime meruit de genere humano, qui primus docuit voces humanas in quosdam simplicissimos primos et irresolubiles sonos resolvere; quam Inventionem certissimum est praecepsisse Inventionem Literarum Alphabetearum, quam nos vulgo miramur; haec enim nihil sunt aliud quam Signa Signorum, id est sonorum, adeoque illis necessario posteriora. Non quidem dico hanc Inventionem omnem Literarum usum praecepsisse; nam non minus certum videtur usum Characterum, quatenus Rerum ipsarum et mentis Conceptuum immediate significativi sunt, ante hanc prius longe cognitum fuisse: Imo judiceo usum Literarum hoc sensu fuisse ab initio, licet homines in materia folida et ad figuratas conservandas apta nondum scriberabant: qui enim caput nutat, oculo connivet, digitum movet in aere, &c. (ad mentis cogitata exprimendum) is non minus vere scribit, quam qui Literas pingit in Charta, Marmore, vel aere. Ratio cur judicem Charakteres extitisse ab

initio, est quod non minus naturale fit homini communieare in *Figuris* quam *Sonis*: quorum utrumque dico homini *naturale*; licet scribere has vel illas figuras, vel loqui has vel illas voces, fit omnino ad *placitum*. Præterea Chara^racteres *Reales* fuisse in usu ante Chara^racteres *Vocales*, Syncenses et Ægyptios, populos antiquissimos testes compello.

Sonorum simplicium numerus et differentiae, a diverso modo aperiendi et claudendi Organa pronunciationis petenda sunt; quare primo dividi possunt Literæ, in *apertas* et *clausas*.

Apertæ principaliores (non enim est animus differentias minutiores persequi) sunt septem; quarum valor, ordo, et foni differentia videantur supra. Hæ iterum sunt *Gutturales* vel *Labiales*. Gutturales sunt quatuor, quarum pronunciatio gradatim procedit, a fono maxime aperto *a*; per sonum paulo contractiorem; et tertio *e* adhuc contractiorem, et gutture strictiore prolatum; ad quartum *i* sonum contractissimum, et strictissimo gutture formatum, ideoque acutissimum. Labiales sunt tres; quas sic voco quod fine labiorum ope et motu formari nequeunt. Harum *o* est maxime aperta, hoc est contractionem labiorum minime poscit; *u* contractioniora labia in ipsius formatione requirit; *u* maximam labiorum contractionem et conatum postulat.

Quot modis hi foni simplices coalesceere possunt in diphongos, non morabor curiose inquirere: Hoe tantum teneatur, sex esse diphongos sonatu et distinctu faciles, ni. *ai* *ei* *oi* *au* *eu* *ou*, qui efferri possunt continuato spiritu, ad modum unius simplicis foni: et ratio hujus est, quia componuntur ex sonis maxime apertis precedentibus, et maxime contractis sequentibus; ideoque facilis est cadentia organorum eodem spiritu in his formandis.

Literæ clausis organis formatæ principaliores et omni populo pronunciationi faciles, et quibus folis idecirco hic usurus sum, sunt duodecim: Hæ dividuntur in *semiclausas* et *perfecte clausas*.

Literæ *semiclauses* que et *semirocales* appellari possunt, sunt tres: *s r l* in quibus formandis organaoris non clauduntur perfecte, sed continuatur spiritus transpiratio per os; et ex varia percussione palati per linguæ extremitatem (quæ organum pronunciationis præcipuum est) formantur.

S formatur per contactum palati et laterum linguæ, media parte linguæ a contactu abstinentem; per quam tauquam per fistulam, spiritus fons sibilis emittitur. De fono hujus Literæ audivi virum doctum hoc pecu-

liare obſervantem, quod nequeat efferri fono *claro*, fed ad modum *susurri*: quod quidem verum eft, fed non de hac litera ſola; nulla enim eft litera aspirata ex tribus mutis, qua efo claro proferri poteſt. Ut hoc diſtingui perciptatur, conſulo ut inter pronunciandum diu haereatur in harum literarum formatione: et fie obſervabit ingeniosus quilibet, licet altifima voce exclamet, proferendo vocem ex his literis et vocalibus conflatam, dum fonat vocales fonus erit clarus; fed cum ad has literas fonandas pervenitur, ſtatim fonus clarus vaneficit in fufurrum, *e. g. as with life.*

Sonus *r* eft fortis vibratio extremitatis linguae contra palatum: hinc eft quod qui nervos linguae habent debiles, non facile formant hunc fonum.

L, formatur modo contrario quo *S*, extremitate feil. linguae palatum tangente, lateribus vero a contaſtu abſtinentibus, ut transmittatur ſpiritus. Hie notetur: nihil me unquam magis vexavit, quam invenire veram diſſerentiam inter literas *u* et *l*; auribus enim percipiebam fones diſtinguimos, at vero in organorum contaſtu, unde omnem fonorū diſſerentiam exoriri fatis ſiebam, vix quidem ac ne vix, per multos dies diſſerentiam ullam obſervare potui; faltem quam deſcribere poteſt. Verum ex jam dictis et ſtatim dicendis fatis clare deſcribi poteſt harum literarum diſſerentia; in formatione enim *l* ſpiritus per os transmittitur, in *u* per naſum.

Soni perfeſte clauſi ſunt novem, qui duplicitate ſubdividi poſſunt; vel primo, ratione diſeritatis organorum quibus formantur; et fie in tres ter-narios numeros diuiduntur, *labiales m b p*, *linguaes n d t*, et *gutturales f g k*. Vel ſecundo, diſtingui poſſunt ſecundum diſeritatem foni editi in iis formandis; ſecundum quam diſſerentiam ego eas hic diſpoſui, utpote inſtituto meo acoſmodatiorem; et fie ſunt vel *Nasales* seu *Transpirantes m n f*, vel *Suffocatæ b d g*, vel *Mute p t k*: Nam ratione organorum pronuncia-tionis præcife, tres tantum ſunt literæ perfeſte clauſe; fed haec tres clauſuræ multiplicatae per trinam diſſerentiam foni faciunt novem.

Nasales ideo fie voce, quod dum organa oris clauduntur, continuatur fonus per emiſſionem ſpiritus per nares; clauſis enim naribus, haec literæ formari nequeunt. De his tria hic monenda ſunt. Primo ex hac naturali et genuina fonorū analyſi detegi (vel faltem confirmari) literam ſeu fonus vere ſimplicem dari, quae vulgo per duas literas diverforum organ-

orum, ideoque in eadem syllaba minime unibilium, absurde scribitur: Hic enim sonus ex natura rei ipsius, non minus facilis est vel in principio vel fine vocis fine alia consonante, quam aliæ duæ literæ nasales *m* et *n*; licet respectu nostri non ita sit; nam nos nihil facile facimus nisi quod saepe facimus. Secundo, cum in vulgaribus nostris linguis nullum habeamus Charakterem simplicem ad exprimendum hujus foni valorem, ideo multatus sum Charakterem, *f* ad hunc sonum significandum. Tertio, propter hanc causam Charakterem, *f* pro dicto fono substitui, quia hic mihi propositum est omnibus modis facilitati consulere, (quæ etiam causa fuit, quod omnes alios sonos simplices rejecerim; quia pauci vel nulli eorum sunt, qui facile pronunciantur ab omnibus populis, sed apud varios populos admodum varius est eorum usus) ideoque hunc sonum, licet perfectissimum et distinctissimum ab aliis; cum tamen a nullo populo cuius literæ ad nos per venerunt sit usitatus, nisi ante suffocatum vel mutum fui organi (et tunc quidem Charaktere proprio non scribitur; Graeci enim per γ αγγελος; aliæ gentes per *n* ut *languor, anger*) ideo inquam, hunc sonum ex hac lingua ejeci, cuius loco substitui literam, *f*, facilis et distincti foni. Si tamen aliter visum fuerit viris doctis, poterit retineri sonus proprius literæ gutturalis *Transpirantis*. feni *Nasalis* sub Charaktere soni, *f*.

Suffocatae b d g formantur eadem clausura organorum qua *Nasales*; sed spiritu magno nisi retento et suppresso in gutture. Hic notetur literam *g*, ut vulgo in *Georgius* sonatur, non esse literam simplicem, sed compositam ex *d* et *sh*, quasi *dshordshius*.

Literæ *Mutæ* formantur eadem clausura organorum qua supra dictæ: sed omni interno spiritus motu et fono cessante post organorum clausuram factam.

Præter has duodecim consonantes principales jam enumeratas, omnibus hominibus organa illæsa habentibus pronunciari faciles, quibusque solis (ut dixi) ideo hic usurus sum, alii sunt soni simplices ex his orti, ni. ex aspiratione dictarum *suffocatarum* et *mutarum* oriuntur fex; *r* ex *b p*; *th* ut sonatur in *the* et *tithe*, ex *d*; *th* ut sonatur in *thrice*, ex *t*; *gh* (qui sonus est germanicus) ex *g*; et *x* ex *k*. De his notandum primo, quasdam harum aspiratarum, licet duabus characteribus descriptas, esse tamen revera

timplices fonos non minus quam *f* et *v* quæ unio charactere feribuntur. Secundo, Nationes exteræ male accusant nos Britannos *blæstatis* dum literas *d* et *t* aspirate pronunciamus; qui foni illis durissimi sunt. Sie populo Anglicano vicissim peculiare est, abhorrente a gutturalibus aspiratis. Corruptit etiam, ut plurimum, fonos *a* et *i*, quasi *e* et *ai*: non tamen omnino respuunt Angli fonos *a* et *i*, familiares enim satis illis sunt hi foni, licet diversis characteribus notati; *a* enim per *aw* feribunt, et *i* per *ee*, ut *law, saw, peel, feel*.

Contigit aliquando verba habere cum curioso quodam rerum naturalium [caufas] ferutatore, qui caufam varietatis hujus fonorum apud diversos populos, eceli folique temperiem assignabat. Non quidem diffiteor caufas naturales esse operativas in fonorum diversitate; verum caufæ proximiiores reddi possunt, quam regionum temperies, ni. corporis temperamentum, quod fæpissime plus diversitatis producit in hominibus in eodem loco natis, quam videmus inter alios in diversis mundi climatibus. Quare hoc certum est, caufas naturales variare fono quoad eorum modulationem; hoc est, quod sint graviores, clariores, asperiores, &c. at vero adferibere caufam differentiæ sonorum, qui ex distin&ti organorum clausuris et contactibus oriuntur, vel regionis, vel corporis ipsius temperamento, est revera ignorantiam veræ caufæ differentiarum fonorum prodere: mihi enim experientia comprobatum est, posse Anglos gutturales aspiratas satis distincte pronunciare, ut etiam alios Populos gutturales linguaes. Nulla igitur ratio reddi potest, cur Angli averfantur fonus *x*, exteræ nationes vero *th*, quam cur Angli vocant *urbem town*, aliae Nationes alis vocibus.

Z est *S* suffocatum; hoc est, differt ab *s* ut *d* a *t* vel *b* a *p*, &c.

Est et alias fons simplex, qui paululum differt ab *s*, qui vulgo feribitur *sh*: Hebrai proprio Charactere notant *שׁ* qui etiam duplieiter sonatur, ni. *muto* et *suffocato* fono; unde oritur duplex litera, cuius fonus *suffocatus* nobis Britannis non est usitatus, sed ni fallor Polonis familiaris.

Tota essentia literæ *h* consistit in forti spiritus impulsu in vocalium prolatione, sive id fiat spirando, sive respirando; et haec de fonorum simplicium numero et principalioribus differentiis.

Quemadmodum foni simplices aperti coalesceunt in unum fonus continuatum, qui dieitur diphongus, sic clausi fæpissime in unum continuatum

fonum in eadem syllaba coalefunt; quare explicatis fonis simplicibus clausis, quasdam regulas de earum compositione tradam; ni. de principalioribus fonis Compositis, ut monui de diphongis.

Primo, Hæc est Regula certa et universalis: Nulla litera unius organi naturaliter præeedere potest literam alterius organi, in principio syllabæ. Hinc excipiatur s que ante quamvis aliam in principio syllabæ, vel post quamvis aliam in fine syllabæ fatis euphonice sonat, licet in nulla (quod sciam) lingua, suffocatis b d g præponatur, quod propterea nec ego hie feci. Raro etiam invenitur ante r; Analogia tamen hujus Lingue coagit me in quibusdam vocibus componere sr: videbam enim somni in se fatis esse euphonium et facilem. Lingua etiam Anglica admittit r post sh, fonus s maxime affinem, et quidem multo duriorem, ut *shrewd, shrine*. Videbitur fortassis *sf* (ubi per *f* jam intelligo gutturalem *nasalem*) fonus nou naturalis: verum ut supra demonstravi *f* solitarie sonari posse in principio syllabæ, non minus quam m n; sic etiam compositio *sf* non minus est naturalis, quam sm sn.

Secundo, In fine syllabæ *Nasales* euphonice valde sonant ante *suffocatas* vel *mutas* ejusdem organi; ut *lamb, lamp, and, ant, long, ink*. Ubi notandum in *long* et *ink* non n sonatur, nee quidem sonari potest, sed gutturalis *Nasalis*. Durus tamen est Germanorum fonus componentium *Nasalem suffocatam* et *mutam* in eadem syllaba; ut *handt, lundt*.

Tertio, *Semiclaues* r l bene componuntur in principio syllabæ cum *suffocatis* et *mutis*, quæ compositio mili in frequentibus magni est usus: durus tamen paululum sonat l post d et t, quia eadem fere (ut dictum) clausura organorum formantur. Et licet analogia hujus linguae postulat fonus l componi cum d et t, tamen evenit in ista parte Lexiei quæ sub d et t est, paucas notiones habere proprie dictum *medium* ejus l est characteristicum.

Quarto, r et l in fine syllabæ ante quamvis aliam consonantem bene sonantur, sed post nullam. Jamque doctrinam de fonis simplicibus cum his observationibus absolvam.

Primo, Omnium Linguarum Grammaticæ in Literarum numero vel defectivæ sunt, vel redundantes; quoïdam enim fones complexos unico charactere, alios vero fones vere simplices duobus characteribus notant.

Secundo, Nulla ante-hac ratio *ordinis* literarum redditā est; sed non minus fortuitus est *ordo* literarum quam institutio vocum.

Tertio, Ex convenientia quam videmus respectu methodi in omnibus Alphabetis, manifestum est literarum Inventionem unicum Autorem habuisse; Literæ enim *A B* primum locum obtinent in Alphabetis omnium Linguarum. Quod ordo sequentium Literarum variet, ratio est, partim quod quedam literæ postea additæ sunt post primam inventionem; quedam etiam a quibusdam Gentibus eliminatae sunt cum quilibet populus literas recipiens Linguae suæ adaptavit: aliae sunt variationes in numero et serie literarum apud varias nationes ex aliis accidentibus, quarum causas reddere est difficile.

Quarto, Ex sonorum Analyfi hic tradita fatis intellecta, statim sequitur eorum recordatio.

Quinto, Priusquam caput hoc de sonis absolvero, docebo ex supra dicta analyfi Artem (quod quibusdam forte non ingratum erit) transmutandi voces cuiusvis Linguae in alias diversissimas, et tamen sermo sic transmutatus eandem gratiam et euphoniam retinebit; adeo ut facillime disterni possit, qua lingua quis utatur, licet sensus verborum maneat omnino occultus, etiam ab istarum linguarum peritis. Ars breviter haec est. Fiat commutatio labialium *m b p* cum dentalibus *n d t*; quod etiam fiat in earum aspiratis; et commutatio *g* cum *k*, et *r* cum *l*; exemplum,

Pipile pu tapuræ legndams sud peknine thaki.

Syrthesplen pemue Nusam nebipalis athema, i. e.

Tityre tu patulæ, &c.

Nemo linguae Latine gnarus, dum audit has voces recte prolatas, qui non fatis percipiet eas esse Latinas, licet ita inversas ut nihil intelligat ex iis.

C A P. II.

DE CHARACTERIBUS.

QUEMADMODUM scientia transfertur a homine ad hominem per organum auris, mediantibus sonis, sic etiam per oculi organum mediantibus figuris. Potest fieri communicatio per reliquos sensus; sed tardius, ideoque ad nostrum institutum nihil pertinet, qui medium communicationis brevissimum et rationi maxime consentaneum querimus. Si comparatio institutatur inter signa *vocalia* et *scripta*, communicatio in *sonis* multo est expeditior inter praesentes; sed hanc vincit communicatio per *figuras*, quod, cum ror perit litera *scripta manet*. Per figuram enim communicari potest inter absentes, et ad quamvis distantiam; et quod praecepsum est, rerum memoriae praeservant.

Hic diligenter est advertendum quod eadem fit Ars signorum *audibilium* et *visibilium*: quot modis enim componi possunt (secundum regulas Artis) figuræ simplices, et rebus significandis imponi, tot modis et eadem prorsus Arte, componi possunt et variari foni simplices. Veritatem hanc ulterius sic demonstro. Ubi Ars ibi Methodus, ubi methodus ibi numerus, ubi numerus ibi aptitudo, ut res numeratae secundum ordinem numericum vel figuris vel vocibus significantur: quod fatis est evidens ex signis numericis, a me in hoc opere traditis. Hoc noto propter imperitiam eorum (pro quo errore etiam homines docti sunt incepandi) qui Artem Signorum in *mutis figuris*, hoc est *Characterem Universalem* (ut vulgo appellari solet) mirantur, sed de lingua nova audire non ferunt: cum tamen nemo Artes communicandi per *figuras* tradere potest, quin eadem *Characteris* praecepta sint eadem ratione sonis applicabilia. Hoc quidem meipsum diu latuit, postquam detexerim hanc Artes in figuris: et sicut incredibile videbatur suscepimus meum primum de Charactere muto, non solum vulgo sed plurimis viris doctis; hoc vero secundum adhuc magis fidem superabat, etiam mulorum quibus abunde satisfactum erat de Arte figurarum.

Quamobrem hoc non me adeo movet, quod pauci apprehendant Artem Sonorum et *Figurarum* esse omnino candem; est enim hoc Artis Mysterium fatis arduum. Sed admodum moleste fero, quod videam omnes fere homines una voce *Characterem Realem* et *Mutum* expetentes, dum vero de *Lingua* audiunt, ab hac ut a vano et superfluo Commento abhorrent; quasi Linguarum confusio nullo alio pacto esset reparabilis, nisi exscindendo omnium hominum *Linguis*, ut solis *mutis Characteribus* fieret communicatio. An non qui legit hunc librum, habet me ipsi communicantem aniuui mei sensa in Charactere *Muto*; non enim audit meas *voces*? Sed dicit, hic Charakter est *effabilis*. Verum quidem est. Au propterea pejor et minus desiderabilis? An voces aures offendunt? Si in signis inartificialibus (qualia sunt voces omnium Linguarum) detur resolutio sonorum in *figuras*, et *figurarum rursum in sonos*, que Ars est egregia et utilissima, quanto magis debet haec perfectio reperiri in Signis Artificialibus? Rogarem eui fini vel bono expetitur Charakter Realis *Mutus*? Si dicatur ad communicandum cum hominibus diversae *Lingue*, consentio. Et ego hanc Artem hic doceo, longe compendiosius et facilius quam unquam cogitatum erat ab iis qui eam inter Literaturaे desiderata numerarunt, et quam est possibile ut fiat in tali *Charactere* qui in *sonos* non sit resolubilis. At diees, hic Lingua doceo. Resp. Si aliqui non placeuerit communicare per hanc artem in *vocibus*, compescat Lingua, et obturet Aures, et sic communicare poterit in solis *mutis figuris*: ego enim nullam aliam differentiam agnoscere inter quemvis *Characterem* (Arte) exegitabilem ad communicandum, et Lingua.

Ratio autem quod homines adeo præjudiciis laborant contra Lingua novam, et *Characterem mutum* mirantur, est primo partim propter famam *Characteris Universali* seu *Realis*, quo nomine indigitata fuit haec Ars ab iis qui de Literatura desideratis tractarunt. Secunda hujus rei ratio (quae etiam reddi potest ratio cur viri docti nihil vel parum dixerunt de Lingua Philosophica, desiderata Artis enumerantes) est propter ignorationem hujus egregiae veritatis; quod quicquid praestari potest in *figuris*, idem eadem Arte praestari potest in *sonis*, ut supra ostensum est. Tertio, vulgus plus *noritatem* et *Raritatem* Artium admirari solet, quam *veritatem*: communi-

care autem per signa mere *mūta*, est quid novum et rarum ; per *figuras* in *sonos* resolubiles est ordinarium.

Suadebant mihi Rei Literariae amici et etiam mei, Artem hanc primo in *Mutis Characteribus* exhibere, *Linguam* reticendo ; quo hominum curiositati, ex rei omnimoda novitate magis placerem, atque sic ipfos ad ejus studium facilius allicerem. Verum hic non videbatur mihi bonus dolus, propter hanc rationem. Certum quidem est tantum esse hominis *curiositatem*, ut ad res *noras* et *raras*, quodam quasi curiositatis ardore et flamma omnes advolent : verum non minus certum est, *fastidium* quoddam occupare mentes humanas post visas res *noras* et *extraordinarias*, nisi usus aliquis in illis percipiatur. At vero in iis rebus, quarum *usus* ipsas plus commendat quam *noritas*, licet homines tanto impetu in illas non ferantur, attamen eum *usus* sit bonum *permanens* et *perpetuum*, *noritas* vero cito *transiens*, si non tam avide eas amplectantur, amplexas tamen majori cum voluptate retinent. In duobus autem demonstro usum *Lingue*, id est facilitatem communicationis, majorem esse quam si in solo *muto Charactere* hanc Artem patfecisset. Primo, Nulla subfidia mnemonica haberi poterant ad Characteres Radicales memoriae imprimendos, quae hic valde memoriam adjuvant. Secundo, In *Charactere* solo patefaciendo oportebat novas *figuras* formare, quae licet paucæ admodum fuerant, et eadem Arte unibiles ad unicun perfœctum Charakterem constitendum, qua hic literæ ad unam vocem faciendam, tamen aliquid oneris memoriae necessario fecum attulissent : hic vero, retinentur *Characteres* prius noti omnibus Europæ populis.

Cum igitur (ut dictum) Ars *Characteris* et *Sonorum* eadem fit, omnino par erat et rationi consentaneum, ut quod facilius erat primo proponeretur : qui enim *Lingue* usum prius calluerit, possim illum *Characteris* Artem spatio unius hora docere. Quare eum ex hac Arte *usum* vere intendam, hac **Methodo Docendi** usus sum, utpote fini meo maxime accommodato ; ideoque impresentiarum de *Characteris* Arte nihil plus addam, nisi quod, sicut delectum feci *sonorum simplicissimorum* et maxime euphonieorum, sic etiam *Characteres* erunt *simplicissimi* et *figurae pulchrae* et *uniformes* : nullæ erunt caudæ dependentes, nulli apices eminentes.

C A P. III.

DE RERUM SERIE PRÆDICAMENTALI.

ABSOLUTA Doctrina de primis Signorum Elementis, quantum præsentis Instituti ratio postulabat, et brevitas finebat, priusquam accedam ad *signa integra*, ex his componendum, *rebusque ipsiis imponendum*, necessarium erit *Rerum ipsarum naturas paululum introspicere*: hoc enim est malum, cui remedium quærimus in aliis Linguis, quod prima nonina Rerum omnino fortuito, et sine ullo confilio vel respectu habito ad res ipsas pro quibus supponuntur, sint imposita. Cum enim *Signa* a nobis pro *Rebus* ipsiis supponantur, omnino rationi consentaneum est, ut Ars *Signorum* Artem *Rerum* sequatur. Et siue judicio *Metaphysicam* et *Logicam* unicam tantum constitueret Artem, sic *Grammatica* non aliter vel plus differt ab his, quam *Signum a Signo*; cumque haec correlata sint, omnino eoram eadem debet esse scientia. Quare, qui cum Ratione *Nomina Rebus* imponere velit, primo oportet in Chaos istud Mundi Idealis in animo existentis, per quasi creationem Logicam, formam, pulchritudinem, et ordinem introducere; quo factō facile erit ejus partes Nonnibus aptis appellare. Sicut enim manus pictoris in seculis Imaginibus, per internam Mentis Ideam ex objecto extrinsecus viso genitam, regitur, sic Grammaticus, secundum Ideas et Regulas Logicas a Rerum ipsarum natura extrinsecus existentium petitas, Nomina illis imponere debet. Haec autem ordinata Series Rerum vulgo dici solet *Prædicamentum*: De quo in genere pauca hic dicenda sunt.

Opinio est quorundam hujus Sæculi Scriptorum, qui in quibusdam Philosophia partibus Inventores, in omnibus vero Reformatores se jaētant, nullum esse usum *Doctrinæ prædicentalis*; hoc est revera, strictam Methodum in Artibus docendis non esse necessariam: quo nihil absurdius et Philosopho indignius doceri potest. Quo enim tendunt omnium Philosophorum conatus in variis Philosophiae partibus, nisi eo, ut Rerum naturas aperiant, differentias et convenientias ferutando, sive, Methodo et ordine

inter se collocando et disponendo? Quod postquam præstitum fuerit in particularibus Scientiis et Artibus, tunc officium est Logici, has sparsas Philosophiae partes in inferioribus facultatibus ab aliis tractatas colligere, easque legitima subordinatione in unum Systema componere; quod recte appellari potest *Prædicamentum*, seu *Rerum omnium series ordinata*. Non mirum est igitur hos Autores in tam fados errores nūsse lapso, dum fieri prædicamentalem revera inutilem, nobis obtrudere velint. Quis Philosopherus a risu continebit, cum audiverit duo esse Summa genera Rerum, *Corpus* scilicet et *Non Corpus*. Dicerem hos homines *Manichæos*, nisi se *Saducæos* aperte profiterentur. Solent hi Terminis Artis, et vocibus ad res significandas a sensu et corporeo contactu remotas impositis, ut absurdis et insignificantibus irridere; cum tamen nulla detur vox magis absurdula et insignificans, quam *non-corpus* quæ illis summum Genus constituit. Rogarem hos, quid illis significat haec vox *Deus*? Certe, nisi sibi aperte contradicant, est vox *absurda* et *insignificans*; nullo enim corporeo contactu, ipsis fatentibus, ad naturam Divinam perveniri potest.

Quandoquidem probabile admodum sit, Libellum hunc ad multorum hominum doctorum manus perventurum, ideo placuit hic paucis inferere Rationes, propter quas sensu fide ex Dei Revelatione, his duabus Maximis (et quidem mihi aliarum omnium primis) veritatibus ipse assentiam. 1. *Esse Deum*. 2. *Animam Humanam esse Immortalem*. Hocque eo libenter facio, quod videam maximam audaciam Mortalitatis assertorum hoc fermento plurimos corripisse; et quosdam Autores Magni Nominis, hoc Argumentum leviter admodum tractasse.

Primo, præter naturæ vocem in omnibus hominibus Numen suspicientem et invocantem, ulterius sic colligo esse Deum. *Esse Causam primam* est prima veritas; ergo est prima veritas esse Deum: *Causa enim prima et Deus* mihi idem significant. Verum

Secundo, *Animam Humanam esse Immortalem*, quod magis dubitatur et apertius contradicitur a multis (licet revera qui hoc negant per necessariam consequentiam *Dei* existentiam etiam negant) sic licet colligere. Nulla potentia *Materialis* et *Mortalis* elevari potest ad *Deum Immateriale* et *Immortale* apprehendendum et contemplandum; sed anima humana elevatur ad *Deum* apprehendendum et contemplandum, ideoque etiam appre-

tendum et ut suo summo bono fruendum; ergo non est *Materialis* et *Mortalis*, sed germen et propago Divinae Naturæ: cui optime consentiunt S. Script. phrases, *Animam* appellando *Dei Imaginem*, *Candalam Domini*, et *Deum Patrem Spirituum*. Minor hujus Argumenti patet, nec ab adversariis negatur; Ratio Majoris est, quod inter omnem Aëtum et Objætum intercedere debet naturæ proportio: quod etiam principiis *immortalitatis* adversariorum est consentaneum, dum docent Mentem corpoream res in corporeas apprehendere non posse.

Renatus Des Cartes, vir in multis ingeniosissimus, videtur mihi hoc Argumentum traçtans, fundamentum jecisse in arenis; magno enim apparatu verborum, et singularem Methodum affectans, ad hanc veritatem demonstrandum procedit; cujus tamen Argumenta mihi potius dulees phantasie vel Meditationes (ut ipse loquitur) quam rigidæ Demonstrationes videntur. Primum et maximum ejus Argumentum ad hanc veritatem evincendam, tale est. Possum ego supponere, nihil existere extra me, vel Deum, vel Cœlum, vel Terram; vel me habere manus, pedes, oculos, &c. et tamen omnibus his remotis, manet verum *ego Cogito*, ergo etiam hoc, *ego Sum*.

Miror neminem hujus suppositionis fallaciam detexisse: est enim non minus implicatoria quam haec. Suppono nihil corporeum existere extra me, tamen verum manet, ego video, ego audio: omnis enim *Aetus* tam *Spiritualis* quam *corporeus* necessario supponit *objectum*. Et qui per suppositionem tollit *objectum*, necessario tollit et ipsum *aetum*; qui enim cogitat, de aliquo cogitet necesse est, non minus quam qui videt, audit. Necesse est *objectum* aliquod his facultatibus proportionatum habeat.

Si quis ad hanc suppositionem fulciendam diceret, posse *Animam* habere pro cogitationis *objeto seipsum*: Ad hoc Resp. 1. verissimum est, *animam* posse super fuos Aëtus directos reflectere, hoc est seire se ferire: et hoc secundum est meum principale Argumentum pro *Animæ Immortalitate*, sic enim arguo.

Sicut primo, illa *Natura*, quæ ad Deum contemplandum, appetendum et fruendum elevatur, necesse est *Inmaterialis* et *Immortalis* fit; Sic secundo, illa *Natura* quæ super fuos Aëtus reflectere potest, et se contemplare, necesse est hanc Naturæ Divinæ participem esse: sed *Anima*, &c. Ratio Majoris est, quod fit perfectio fisi Naturæ Divinæ competens, se

contemplare, appetere et frui: Illa enim Natura quæ potest super se reflectere, se appetere et frui, nulla alia re existente, est *Deus*. Quare cum *Anima* possit super se reflectere, (licet non in supra dicta suppositione, sic enim esset revera *Deus*) certum est hanc potentiam esse partem *Imaginis Divinæ*.

Sed secundo, quid hoc ad dictam suppositionem fulciendam, quod *Anima* possit de se cogitare? Omnis enim *Actus Reflexus* (in Creatura) supponit *actum directum* super quem reflectit: omnis *actus directus* dicit essentiale respectum ad *objectum extrinsecus* existens. Qui igitur per suppositionem tollit omnia *objecta extrinseca*, is etiam *actum directum* omnem tollit; qui *actum directum* tollit, is etiam *actum reflexum*, cum *actus directus* sit *actus reflexi objectum*. *Actus antem Reflexus purus*, sine omni suppositione prioris *Actus directi*, est folius Dei. Quare supponere *Animam*, nulla alia re existente, de se cogitare posse, est supponere impossibile: vel *Animam esse Deum*, quod est adhuc magis impossibile.

Tertio, Neque verba ipsa Autoris patiuntur hunc sensum; explicans enim se quid intelligat per vocem *cogitare*, dicit esse, hoc velle, illud nolle, de alio dubitare, &c. qui actus aperte referuntur ad *objecta externa*, quæ modo per suppositionem sustulerat.

Si dicat quis, quomodo dici possunt illa principia prima notissima et verissima, de existentia Dei et *Animaæ Immortalitate*, eum ea homines docti habeant pro falsissimis? Resp. Hos homines loqui vel ex pravo affectu vel esse Mente captos. Sed quis ita mente captus, ut notissima et prima principia neget? Imo, vidi aliquando homines morbo corporeo laborantes, dum alios loquentes audiebant, et intuebantur, tamen negasse se vel videre, vel audire, et quanto clarius proponebatur iis objectum, tanto magis negabant se sentire. Sic contigit infantem Atheum, dum conceptus clarissimos de Deo format, tunc strenuissime hoc idem negare. Sed hi homines multum sapientiae in aliis rebus manifestant. Sic contigit aliquando quosdam homines absurde et ridicule de una aliqua re sentire, in aliis tamen satis sapere.

Sed ne diutius a proposito digrediar, summam dictorum in hanc brevem circularem ratiocinunculam colligo, quæ mihi principia prima et notissima continet (cum scilicet non sensum, sed recte rationis dictum sequor) quæque

ad omnia Atheorum Sophismata diluenda sufficiunt; *Aut ego sum Immortalis, aut Deus non est,—Aut Deus est, aut ego nihil sum:* jamque ad *prædicamentum* redeo.

Et interrogo illos qui *prædicamenti* nullum usum vident, quid significant hæc voces *genus, species, differentia, definitio, &c.*? Certe, sine *prædicamenti* suppositione sunt omnino absurdæ et nihil significantes: omnis enim *demonstratio* supponit *definitionem, definitio genus et speciem, genus et species ordinatam seriem Prædicamentalem.* Et quidem si proprie loqui velimus, nulla est *definitio* vel *demonstratio* (licet Autorum scripta his vocibus abundant) quia nulla est constituta *series prædicamentalis:* hinc est, quod quæ habetur *definitio* ab uno, non merebitur *descriptionis* nomen (ut vulgo distinguunt) ab alio; sic quod huic est *demonstratio*, illi est *Sophisma*.

Jecit Aristoteles quædam rudia fundamenta *prædicamenti*, et nos nihil vel parum superstruximus. Posuit ille pro suo arbitrio deem Summa Genera Rerum, quædam notiones quæ sub his comprehendi nequivant, *Transcendentes* et *Extravagantes* appellando; ex quibus duo alia *prædicamenta* eadem ratione et Autoritate constituere potuisset. Ratio quod hæc rerum ordinatio displiceat, est primo, quod non satis accurate distinguat *Rerum notiones*; cum eadem *notio* scipissime diversis respectibus, ad diversa *prædicamenta* referri potest, *Qualitatis, Actionis, Relationis. &c.* Secundo, quod in recta ordinata serie *Rerum*, nulle sunt notiones *Transcendentes* admittendæ, nisi *genera respectu specierum et individuorum, Transcendentia* quis dicere velit. Qui enim notiones *Transcendentes* ullo alio sensu admittunt, contradicunt *prædicamenti definitioni* ab ipsis traditæ, ni. quod sit *Series Rerum sub uno summo genere contentarum.* Est igitur secundum hanc definitionem, sola notio *Entis Transcendens*.

Quid igitur fiet de his *unum, rerum, bonum?* Omnino *Enti* subjugandæ sunt, sunt enim revera *Accidentia.* *Unitas* est Denominatio extrinseca, Rebus adveniens per Intellectus operationem, non minus quam *dualitas, trinitas, &c.* nihil enim est quod constituat Petrum *unum* hominem ante operationem intellectus, quod non eadem ratione, constitutat Petrum et Paulum *duos* homines. Formalis etiam ratio *Veritatis* consistit in *relatione* inter *actum Mensis et objectum.* Sic denominatio *Bonitatis* dicit essentialē respectum ad *appetitum*, seu *voluntatem* aliquam. Imo Deus ipse

O. M. ideo denominatur *optimus*, quod sit summe *appetibilis*: licet enim omnis *voluntas* creata cessaret esse, vel *appetere* Deum, nihilominus maneret semper summe *appetibilis*, et actu *appetitus* ab *appetu perfectissimo*, hoc est suo; ideoque summe *bonus*. Vōes autem *Res* et *aliquid* sunt omnino Synonymae cum voce *Entis*.

Verum ad has notiones uberiorius explicandas, et in summa, ad terminos Metaphyficos, Logieos, et Grammaticos, (quae ut dixi eandem constituant Artem) multa verborum caligine obscuratos et intricatos, discutiendos, Tractatum speciale postularet: Nam propter defectum acenratae Doctrinae Logicæ, plurimæ reperiuntur absurdæ locutiones passim in scriptis Philosophorum et Theologorum; sapientia necessitate imposita, etiam viris doctis, loquendi cum vulgo, ut a vulgo intelligentur. Et quidem haec Magna Philosophiae Reformatio consistit in *Seriei prædicamentalis* legitima ordinatione, quæ fons est omnium *definitionum*, *dirisionum*, *demonstrationum*, aliorumque Logicorum *Argumentorum*, et *terminorum*: ad quod *Nobile Susceptum* ut alios provocem, et ut quibusdam objectionibus contra sequentem Rerum Seriem in Lexico hujus Artis exhibitatam, occurratur, mentioni meam de *Prædicamenti Natura* quibusdam generalibus conclusionibus aperiam.

Primo, Male representatur a Philosophis prædicamenti natura. *Arboris* similitudine; cum nihil sit quod clarius illustret hanc Rerum et Notionum Seriem, quam *Genealogia Generis Humani*. Sieut enim *fide* credimus, omnes homines ab uno primo Parente descendisse, sic *ratione* probamus, omnes particulares Notiones ab una prima *notione Entis* derivari. Hinc est quod recte vocari soleant Mentis humanae apprehensiones, seu perceptiones, *Rerum Conceptus*: *Res* enim ipsæ sunt quasi *Pater*, gignens in mentibus nostris suam *Imaginem*; *Intellectus* vero est *Mater*, has imagines concipiens; et *Memoria* est *uterus*, in quo Rerum Imagines sic genita gestantur. Et quemadmodum videmus numerum *hominum*, ex successiva et continua generatione multiplicari; sic etiam *notionum* numerus ex *Mente* humana, *corpo* non minus successiva, indies augetur. Et sicut is solus dicendus esset perfectus *Historicus*, qui omnia Adami gesta, et continuatam Seriem totius ejus posteritatis, omnesque eorum Actiones recitare poterit; sic ille solus dicendus esset perfectus *Philoso-*

sophus, qui totum numerum Rerum et Notionum, non minus numerosum quam est Adami Poteritas, descendendo et vicissim ascendendo recitare poterit, omnesque mutuos respectus horum inter se computare. Hinc apparet, quantillum sit quod nos Homines scimus; *Quam-quantum* vero quod nescimus.

Secundo, si ex una parte, Rerum numerum pene infinitum, multiplicetque et varios ipsorum respectus mutuos, ex altera parte imbecillitatem Intellectus humani respiciamus: expectandum non est, talem *seriem Rerum* Arte humana confidri posse, que omnibus numeris, et ita absolute sit perfecta, et quoad *numerum*, et quoad *methodum*, ut nihil vel *addi*, vel *demi*, vel *transmutari* possit: respectus enim Rerum ita multipliciter variis sunt, ut carum Methodus secundum varias suppositiones et varios respectus, multipliciter variabilis sit. Nominetur enim qualibet Philosophiae pars, et ad hanc tractandam adhibeantur separatis mille viri doctissimi; inventiretur duos horum in omnibus inter se non consentire: quod non est foli *humanae imbecillitati* imputandum (quod bene advertendum est) sed partim etiam, *Rerum ipsorum naturae varietati*, et *respectui multiplici*. Nihilominus, licet talis perfectio expectanda non sit, maximi tamen effet usus in Philosophia, habere unam aliquam plenam *Seriem Rerum*, suffragiis multorum hominum doctorum comprobata, omnes principales et notas notiones *Naturae* et *Artis* legitima subordinatione praedicamentali per modum *Generis* et *Speciei* complectentem.

Tertio, Duplex est suppositio secundum quam haec *series Rerum* constituit potest, et exinde Rerum *Definitiones* deduci: Vel primo, investigando per Analyticam Logicam, certum numerum *primarum et simplicissimarum Notionum*, ex quibus omnes aliae complexae componuntur: et quidem hic Analyticus modus in penitiorem Rerum cognitionem ducit. Novi sententiam esse ingeniosissimorum hominum, numerum *Notionum simplicium* per strictam Analyticam Logicam, pauciorum esse numero sonorum articulatorum simplicium per strictam Analyticam Grammaticam. Vel secundo, constituit potest haec *series* reducendo omnes Notiones *Naturae* et *Artis*, tam *Complexas* quam *Simplices*, ad lineam rectam praedicamentalem. Utriusque hujus Notionum texture magnus effet usus in Philosophia.

Quarto, In serie secundum hanc secundam suppositionem stabilita, max-

ime naturale effet, eandem methodum observare in *substantiis*, et accidentibus ordinandis; ejus Methodi adumbrationem videre licet in *Tabulis meis*.

Quinto, *Divisio Generum* in hac Serie, procul omni dubio, optima et maxime naturalis effet *Dichotomica*, quae omnium Distributionum est *optima*, quia *prima*; est enim primus discessus ab *unitate*. Nec verum est illud quod vulgo objicitur contra Dichotomiam, quod magis confundat *memoriam*; modo enim oppositio quae est fundamentum hujus divisionis exhibeat clara, nihil est quod magis adjuvet *memoriam*. Quotiescumque igitur *Memoria* confunditur ex *Doctrina Dichotomica*, revera non tam *Memoria* quam *Intellectus* confunditur, qui nondum satisclare perceptis divisionis Rationem et Fundamentum.

Sexto, Distributio omnis Prædicentalis perfecta, est facienda per differentias et Species *positivas*; feens enim nulla est legitima Divisio facta: nullæ enim sunt species rerum *non existentium*, et Differentiae *negativæ* nequeunt species *positivas* constitui. Philosophi et viri docti verborum fallacia hac in re valde decipiuntur; cum enim voce Linguarum vulgarium non sint Philosophice institutæ, et propterea cum nobis defint voces ad exprimendas multarum Rerum Differentias Categoricas, hinc est quod cogamur fingere voces *Negativas*, ex vocibus *positivis* diversæ vel oppositæ significationis, ad Notiones non minus *positivas* significandas, quam sunt istæ que vocibus *positivis* notantur: et sic propter defectum vocabulorum, Differentias *positivæ* contrarias, vocibus *negativis* exprimimus. Res hæc, licet a paucis observata, est tamen apertissima: ut patet in his exemplis, *æquale*, *inæquale*, *par*, *impar*: notio enim *inæqualitatis* non minus est positiva quam *æqualitatis*; dicit enim unam quantitatem esse alia *majorem*; et quid magis positivum? Idem dicendum de *par* et *impar*; que Anglie, vocibus *positivis* redduntur, *even*, *odd*.

Septimo, male omnino, et sine ulla ratione, arcent Philosophi *Artefacta* a Serie prædicentali: *Artefactu* enim non minus sunt objectum nostræ cognitionis quam *Naturalia*; et non minus capacia sunt *ordinis*, et *methodi*, quam illa.

Octavo, Notandum in tali Serie, quamplurimæ darentur voces *genericæ*; quales sunt hæc, *Accidens*, *Qualitas*, *Quantitas*, *Relatio*, *planta*, *brutum*, *avis*,

&c. quæ communiores Rerum respectus et convenientias notant. Supposito enim quod numerus *specierum infinitarum* effet 4000 vel 10000, totidem effet numerus notionum *Genericarum*: quia scilicet jam supposuimus omnem Generum divisionem esse dichotomice factam: et notiones Genericae et communiores, unica voce expressæ, effent valde Emphaticæ, et ad docendum aptæ. Sic, daretur una notio communis *Generica*, ad omnes *Species* differentiis contrariis et positivis distinctas: Sicut enim *sexus* est notio communis ad *marem* et *fæminam*, sic *calidum* et *frigidum*, *humidum* et *siccum*, *durum* et *molle*, &c. unicam notionem communem *genericam*, in qua convenirent, haberent. Specimen hujus Methodi videre licet apud Petrum Ramum, qui solus (quantum vidi) distributionem *Dichotomicam*, secundum strictas leges *prædicamentales*, in suis scriptis Philosphicis accurate observavit; licet illi defuerint *voces simplices* ad notiones *Genericas* distincte et compendiose fine periphrasi exprimendas.

C A P. IV.

COROLLARIA QUÆDAM GRAMMATICALIA EX DICTIS DE
PRÆDICAMENTO.

Ex iis quæ jam dixi de *prædicamento* in Genere, quod fundamentum est, et Materia in qua Grammatica, Corollaria quædam Grammaticalia ducam.

Primo, Constitutio illa Prædicamenti, quæ Notiones *primas* et *simplicissimas* (quarum numerum non superare deceat opinio est quorundam) primo loco disponit; deinde compositas ex his paucis simplicibus, pro ratione varia qua ex his componuntur, et multiplici respectu quem ad se invicem dieunt, Fundamentum non est idoneum Artis Grammaticæ; idque propter dupliceam rationem, unam a *Rebus* ipsis, alteram a *Signis petitam*.

Primo, qui Analyſin accuratam omnium Notionum *Naturæ* et *Artis*, maxime *complexarum*, in prima sua Elementa, omnesque respectus mutuos *simplicium* in hoc Composito, curioſe perſequeretur; toties neceſſario ab illo affumerentur, et reaffumerentur haec *simplicia*, ad varios respectus *Compositi* ſignificandos, illudque ab omnibus aliis rebus perfeſte diſcrimina-ndum; ut perfeſta jam Analyſi, Notio haec *una* præ oculis poneretur, ſepiſſime, in tot *Partes* diſtributa a Philoſopho curioſo, quoſ corpus hu- manum, poſt diſfectionem, a perito Anatomieo. Et quidem non minus diſſicile eſſet, ex tot partibus per hanc Analyſin jam ſeparatim poſitis, col- ligere unam completam et integrā formā hujus Compositi, ita clare ut ab omnibus aliis Compositis ex iſdem ſimplicibus diſtinguatur; quam ex diſfecto cadavere in minutissimas partes, diſcernere cujus fit, an Petri, Ja- cobi, vel Thomæ, &c. Non nego (ut ſupra docui) hujusmodi Analyſes in penitiorem et interiorem rerum cognitionem ducere; Imo dico hanc eſſe ſumma Philoſophiæ perfeſtionem, poſſe quamlibet propositam Notionem in ſua prima principia reſolvere: qui modus philoſophandi utiliſſimus nimis negligitur. Apparet tamen ex diſtis, hanc Analyſin parum conduceſcere ad hanc Notionem, ſub forma unius Compositi, ſtatiu unico Mentiſ a&t;u, fine longo diſcurfu, apprehendendum.

Secundo, Si signa respiciamus, idem manifeſtum erit; hoc principium omnino ineptum eſſe, ut ſecundum illud Nomina Rebus imponantur. Supponamus enim Notionum aliquam, per diſtam Analyſin diſtribui in centum, forte mille particulas, ad omnes minutas Differentias hujus Rei, quibus ab omnibus aliis diſtinguitur, notandas: oportet, ut ad minimum, ſingulae particulae ſeu Differentiae unam literam, ad illas diſtinete ſignifican- dum haberent; his igitur literis in unam vocem colle&tis, Rerum Nomina in eam longitudinem exereſeſcent, ut vox una integrā paginam impleret. Summe quidem cum illis conſentio, qui majore acumine Philoſophiæ pa- tem Analyticam contemplant, quam Philoſophorum vulgus; quanto pau- ciora fuerint Signa Primitiva, ex quibus Rerum Complexarum Nomina, non ex mero Arbitrio, fed Logice et ſecundum Rei Naturam componentur, tanto perfeſtor erit Ars: Fruſtra enim fit per plura, quod æque, vel magis commode fieri potheſt per pauciora. Verum in tanta paucitate Primiti- varum, ex nimia brevitate, nimia obſcuritas oriſetur: experientia etiam

comprobaret, plus Arbitrii necessario fore in hujusmodi Compositis quam ipsis simplicibus.

Secundo, Nec illa constitutio Seriei Prædicamentalis, in qua omnes distinctæ Notiones Naturæ et Artis, tam complexæ quam simplices, per ordinatam seriem Generum et Specierum in linea Prædicamentali collocarentur, adeoque distinctis Nominibus Primitivis notandæ, esset struclurae hujus Linguæ principium accommodatum. Ratio est, quod numerus vocum Primitivarum esset pene infinitus; Bauhinus numerat 6000 species plantarum; Brutorum ingens est numerus; vocabulorum Artis et Rerum Artefactarum, a nemine adhuc ad methodum Artis reducitarum, multo major esset. Imo, ut docent Philosophi, continuum quodlibet minimum dividi posse in infinitum, sic non minus vere, quodlibet Genus vel species dividi potest per infinitas differentias: sic *numeri, colores, soni, passiones animi, &c.* Natura autem ipsa in omni homine docet Rerum Naturas sub communi et universaliter respectu considerare, et ex paucis quibusdam Communibus Rerum rationibus, particulares Rerum naturas describere: quamobrem, omnino aequum est, ut Ars (quæ nihil est aliud nisi Natura Excelta) rationes Rerum maxime communes doceat, ex quibus particularium Rerum Naturæ describi possunt.

Quare Tertio, neutrum horum extremorum sequendum judicavi; sed viam medium ineundam (quæ in Rebus multis maxime probatur) hoc est, selectum numerum principaliorum Notionum, ex primis et præcipuis Scientiis esse delegendum, earum scil. quæ respectus Rerum Communiores dicunt; et has pro primis supponere, iisque significandis voces Radicales imponere, ex quibus aliarum Rerum complexarum Nomina conficerentur.

Quot autem præcise numero sint hæ Notiones, et secundo, quænam nominatim tales sint habendæ, et tertio quo ordine inter se collocandæ; in his quæstionibus resolvendis, verissime dici potest, quot capita tot sententiæ. Cenfeo tamen omnes viros vere doctos mecum in hoc consensuros, nullam harum quæstionum determinari posse sine multo Arbitrii. Ingenii vero mei Mensura circa eas haberi potest ex Tabulis seu Lexico hujus operis: quas non offero ut Seriem Rerum summe perfectam, vel quoad Numerum, vel Methodum Notionum inibi contentarum; sed multum Arbitrii habere admixtum agnosco: haec tenus enim docui, hanc Artem Signorum strictas Leges Philosophiae non pati.

C A P. V.

EXPLICATIO TABULARUM.

QUANDOQUIDEM iam ad folios doctos scribo, quibus pauca verba sufficient, non morabor longam disputationem instituere de singularum Notionum natura et Methodo; sed paucis tantummodo seriem hanc Rerum adumbrabo, rationem diffensus mei a vulgari opinione in quibusdam breviter inuendo, que obvia sunt pretercundo.

Cum Philosophis omnibus fanoribus Consentio, dari unum Summum Genus, et primum et communissimum conceptum, quem solemus appellare *Ens*, seu *Res*. Verum in primis Differentiis *Ens* dividentibus, fententia mea ab illorum differt: Tam cito scilicet oriuntur opinionum differentiae inter nos homines, quam in ipsis rebus inveniuntur. Docent illi *substare* et *accidere* primo dividere *Ens*: Mili vero videtur, Seriem perfecte predicationalem constitui non posse, secundum quam legitimae predicationes fieri possunt, nisi Differentias concipiamus magis latepatentes, que adæquate dividant *Ens*, sub conceptu et respectu communissimo: has ego vocavi, *abstractum esse* et *concretum esse*; vel *simplex* et *compositum*; vel statum rei *incompletum* et *completum*; *Ens* vero incompletum secunda divisione, in *Substantiam* et *Accidens* dividendo: nisi quis mallet uti divisione *trichotomica*, sic; *Ens* est *substantia*, *accidens*, et *Compositum*; quæ forte in hoc casu, et quibusdam aliis, non minus est perfecta quam dichotomia. Ratio diffensus est, quod omnis predicatio Generis, five immediati five mediati de inferiore specie, sicut excludit a suo conceptu differentiam Generis oppositi, sic etiam a conceptu speciei de qua predicatur eandem excludit: quare bene arguitur *lapis est corpus*, ergo omnem conceptum *spiritus* excludit: *Lapis est inanimatus*, ergo omnem conceptum *animati* excludit: at vero, hoc falsum erit; *Lapis est substantia*, ergo omnem conceptum *Accidentis* excludit; est enim conceptus *accidentis* non minus essentialis lapidi, quam *substantiae*; faltem secundum opinionem hodie communiorem

negantem Formas Substantiales Materiales. Cum igitur lapis nequeat dici proprie, vel *substantia*, vel *accidens*; consentaneum videtur, ut alia ratio Generica stabiliatur in serie prædicamentali, que de his Notionibus proprie prædicari possit. Eodem redit eorum sententia, qui substantiam dividunt in *incompletam* et *completam*; sed minus proprie meo judicio loquuntur, secundum strictas leges prædicamentales.

De divisione notionis *Concreti* (qua voce ego utar in sequentibus pro *substantia*) videtur eodem modo philosophandum quo de *Ente*; vel dichotomice, sic; in *imperfectius* et *perfectius*. Imperfectius continet Concreta vulgo Substantias *Corporeas*, et *Spiritus* a corpore separatos: perfectius, Hominem, id est, concretum compositum ex his incompletis; propter quam rationem et alias hic non nomiuandas, videtur mihi revera Hominem esse omnium creaturarum perfectissimum. Vel secundo, trichotomice sic, in *corporeum*, *spirituale*, et *compositum*. Hic Notandum ulterius de Notione *Hominis*, quod male collocetur in linea prædicamentali sub Genere mediato *animal*, et consequenter sub Genere Substantiae *corporeae*; si enim haec sit vera prædicatio, *homo est substantia corpora*; sequetur a conceptu *hominis* removendum omnem conceptum *spiritus*.

Concreta Materialia divido in *Mathematica*, *Physica*, et *Artefacta*. Miratus sum semper has notiones Mathematicas, quas ego hic pro *Concretis* posui, a philosophis haberi *accidentia*: Quis enim non clare percipit has voces, *punctum*, *linea*, *superficies*, &c. esse *Concreta*, cum significant *subjectum* et *formam*? Quare haec propositio *linea est longitudo*, est vel identica, vel falsa.

Notandum de his Notionibus, quod Nomina Rerum corporearum *Quantitatem* vel *figuram* essentialiter dicentium, hinc defumenda esse: sic, *scintilla*, *arena*, *pulvis*, *gutta*; *mammis*, *mammis*, *mammom* *mammim*, &c. id est, *punctum* *ignis*, *lapidis*, &c. Sic linea *ignis*, *ligni*, vel eujusvis materiae, ubi *longitudo* præcipue innuitur: sic folium *Chartæ*, *lamina*, *braætea*, ad *superficiem* referuntur.

In concretis *Physicis* Methodum receptam sequutus sum, Corpora omnia simplicia sub uno genere comprehendi; nec judicabam necessarium addere istam vocem Genericam *Elementi*, cum satis exprimi possit haec Notio *nein græpomp*. Partes Cœli posui solummodo tres; nec judicabam necef-

farium pro constellationibus omnibus (quæ Artis vocabula sunt) ponere voces Radicales; notio enim Constellationis satis commode exprimitur, *asind, stellarum aggregatum*. Nomina vero particularium Constellationum, imponi debent ex his, per descriptionem a forma, numero, situatione, aut alio accidente maxime distingente: e. g. *asind rai, pleiades, &c.* quod faciendum Astronomis commendabo; sicut et in aliis Artibus, terminorum Artis Nomina, ab Artium peritis imponenda relinquam. Vix enim expectandum est ab uno aliquo homine, ut sit par huic suscepito imponendi apta Nomina terminis Artium omnium, quod faciendum est per descriptiones ex primitivis desumptas; idque quantum cum claritate fieri potest, in una voce, per derivationem, vel compositionem: ubi vero natura rerum hoc non patitur, per periphrasis plurium vocum.

An detur elementum ignis non dispiro, sed vulgarem opinionem hac in re sequor; ut etiam, fintue istae partes quas ego posui, stricte loquendo sic dicendas, et inter se distinctas. Novi satis si detur elementum ignis, ibi nec *fumum*, nec *fuliginem*, nec *cineres* esse: Attamen nemo est qui non videt, has notiones dicere essentialem respectum ad ignem hic apud nos. Sic nolo asserere has partes esse stricte loquendo distinctas; novi enim *fumum* et *fuliginem* differre tantum ut eadem res *rarefacta* et *densifacta*: vel, si quis non ferat me sic loqui, *fumus* nihil est aliud nisi *punctula* (sic enim magis Philosophice dicuntur quam *Atoma*) materiae combustibilis, per intensem calorem resoluta et dissipata; *fuligo* vero, est collectio horum sparorum punctularum in locum minorem. Sed rationem reddidi superius, cur omnes Notiones vere *compositas* non hic pro talibus habeam; et si de methodo et loco praedicamentali eujusque particularis Notionis curiose disputaremus, disputaremus in aeternum; quare iterum dico hic multum Arbitrii necessario est admittendum. Omnibus igitur consideratis, non vereor asserere, recte et accommodate satis ad propositum meum, has notiones positas esse ut *partes ignis*; quod etiam intelligendum volo in aliis partibus harum Tabularum, ad quarum particularem explicationem, memor polliciti, jam non descendam; sed explicationem *Concretorum Physicorum* his paucis Notandis absolvam.

Primo, In re *Herbaria* secutus sum Senertum, in *Arboribus* Spigelium, in *brutis Jonstonum*. Secundo, Non omnes differentias et Convenientias

concretorum physicorum quæ apud hos Autores inveniuntur, sed præcipias tantum selegi: Quam inconveniens fuisset hos Autores in omnibus sequi, nemo doctus non videbit, eui seripta horum Autorum nota sunt, et qui naturam fuissepti mei fatis apprehendit. Tertio, Una et eadem res per variam compositionem potest multis appellari Nominibus; sic *Elephas*, *Nykbeisap*, vel *Nyksopryk*. Quarto, Quædam species vix possunt unicae voce fatis significanter exprimi, quo easu addendæ sunt plures voes; quod etiam videri licet in omnibus linguis, præcipue in numerosa *plantarum* familia. Quinto, Licet aliquando contingat, quædam Rerum Species infimas non posse fatis significanter Nomina habere a notione Generiea, et superaddita Differentia, una, vel pluribus ex aliis radiebus, sine longa periphrasi; tamen magis est philosophicum, et meo instituto congruum (eum hi easus omnino rari sint, rarissimi vero [quod præcipue attendendum est] in Notionibus communioribus et vulgaris usus) vel longa periphrasi uti, vel etiam differentiam mere fictam superaddere Notioni Generieæ, quod plus memorie optulabitur, quam si omnes infimæ species fierent primitivæ, et ordine numericæ disponerentur; nihil enim magis onerat memoriam, quam ordo numerieus. Quinto, Si cui forte magis placearet definitiones Specierum *Natureæ* et *Artis* confidere ex Genere, et Loco numericæ pro differentia posito, quam per differentiam petitam ex aliis radicalibus, et Generi superadditam; potest hoc fieri sine minima variatione harum Tabularum, ni addendo literas terminales voci generieæ ordinis numericæ significativas, e. g.

<i>Nyka</i>	pro	1. <i>Elephas</i> .
<i>Nykn</i>		2. <i>Equus</i> .
<i>Nyke</i>		3. <i>Afinus</i> .
<i>Nyko</i>		4. <i>Mulus</i> .

Sexto, Nil refert, quod quædam Genera aliquando coincident in quibufdam eorum speciebus; necessarium enim duxi convenientias Rerum maxime communes feligere, licet aliquando coinciderent in aliquibus.

Conereta Artefacta quod attinet, nemo Philosophus (quod sciám) ante me tentavit reducere ad prædicamentum; multo minus ferunt Philosophi

ea *Substantias* (hoc est entia concreta) vocari. Cum Notiones *Artis* non minus numerosie sint quam Notiones *Naturæ*, ideo decrevi, non prosequi minutiores Differentias, sed quasdam Notiones Genericas disponere, ex quibus Nomina Inferiorum Specierum, vel per derivationem, compositionem, vel periphrasim exprimi possint. Via admodum intrita fuit in ordinandis Genericis Notionibus Artefactorum: Nihil tamen dubito, quin Notiones Genericae quas hic posui, satis sint claræ, et obviae, et inter se distinguae, ut etiam comprehensivæ sub se omnium Notionum Artefactarum. In his explicandis non morabor, sed duabus factis observationibus ad alia tranfibeo.

Sicut in Concretis Physicis Nomina infinitarum Specierum fiunt per compositionem ex Notionibus Radicalibus; sic etiam, hoc idem fit in Artefactis cum eadem proficiat ratio utrobiusque. Quare fiunt Nomina *elephantis*, *equi*, *muli*, *asini*, fiunt ex hoc genere Radicali *n̄k*, et differentiis ex aliis Radicalibus ascitis, sic *n̄kbeisap*, *n̄kpot*, *n̄ksofpad*, *n̄kpim*; sic eodem modo, *poculum*, *coellear*, *matula*, &c. fiunt ex Generica notione *fren*, et differentiis superadditis: *frenpref*, *frenneis*, *frenirem*, &c. Sic, *palatum*, *carcer*, *templum*, *officina*, *tugurium*, *cubiculum*; *fankan*, *fancog*, *fanskas*, vel *fansava*, vel *fanskaf*. *fansprd*, *fanstref*, *fanfrim*; sic, *pileus*, *chirotheeu*, *thora*, *calceus*, *braeeæ*, *ealige*; *freimmeis*, *freimsnus*, *freimfeis*, *freimsmvr*, *freimsmrr*, *freimsmer*, &c. uno verbo. Nulla est Notio Radicalis in Tabulis Primitivorum Concretorum, sive Mathem. sive Physic. sive Artes, ex qua, tanquam Genere, et aliis aliunde ascitis differentiis, non fiunt quamplurimæ inferiores Species. Et quidem modi hujus imponendi Nomina Rebus, vestigia quedam inveniuntur in omnibus Linguis; necessitate et Natura ipsa hoc dictante, ne fiat progressus in infinitum. Sed *Natura* hac in Re, hic *Arte* magis excolenda est.

Secundo, Tenendum in Rerum Nominibus componendis, non esse necessarium ut differentia Generi superaddita sit tota rei Forma, quam docent philosophi esse unum aliiquid simplex, occultum (ipsi nesciunt quid) latitans invisibiliter (et etiam inintelligibiliter) in Rebus; ad quam inveniendam nullum acumen penetrare potest. Verum hoc est commentum absurdum; omnium enim Rerum quarumcumque *formæ* sunt inadæquate cognitæ; nam quicquid cognoscimus de Re aliqua est pars ejus *formæ*: dico est pars

Formæ; *Forma* enim nihil est aliud quam aggregatum omnium accidentium alieujus Rei. Sunt etiam formæ omnes inadequatae nobis cognitæ, nam multa sunt accidentia, qualitates, potentiae, respectus, &c. in Rebus (etiam iis quarum Naturæ sunt nobis maxime notæ) quæ a nobis non intelliguntur. Satis igitur est, si differentia superaddita Generi, sit tale Accidens, quod distinguat Speciem ab omnibus aliis. Atque hæc dicta fint de *Concretis*; sequuntur *accidentia*.

Tenendum in Genere de Notionibus Accidentalibus, quod methodus harum maxime naturalis fit eadem omnino quæ concretorum: ni. Primo, Accidentia Concretorum in genere; Secundo, Mathemat. Tertio, Phisic. &c. ut patet ex comparatione Tabularum Concretorum, et Accidentium.

Primum igitur obtinent locum Notiones *Logicæ*, seu *Metaphysicæ*, quarum litera *S* est Charakteristica: has qui probe intellexerit, et uti poterit, Logici Nomine vere dignus erit. Solent hæc Notiones a Philosophis *Transcendentes* vocari: modo intelligent, quod hæc Notiones sunt Accidentia, quorum significatio communis est *spiritibus*, et *corporibus* absque ulla Metaphora, ego hunc loquendi modum admittam, fecus non.

Inter has primum locum do *causis Rerum*; ad quem licet plures reduxerim Notiones quam vulgo solent alii, non tamen quam rerum Natura postulabat. Secundum locum dedi *modis existendi*; quæ Notio valde communis et frequens est, significat enim *statum*, seu *conditionem* rei. Tertium dedi *Modis agendi*; quæ Notio diversissima est a priori, quamvis Logici has confundant; nec quidem ullam accuratam distinctionem faciunt inter *Accidens*, *qualitas*, et *Modus*. Sed cum singula prosequi non vacet, de gradibus comparationis quos posui sexto loco, pauca notabo.

Notiones hæc sunt maximi et frequentissimi usus; est enim Aëtus Menti *comparativus* longe excellentissimus in Rerum Scientia acquirenda: vix proferri potest sententia in qua Argumenta *Comparata* vel Causæ locum non habeant. Et tamen in nulla parte Logicæ magis cœcutiunt Logici, quam in Doctrina *Comparatorum*. Etiam ipse Petrus Ramus, me Judice, Logicorum Scriptorum acutissimus, hic in tenebris versatus est; nam inter Argumenta Comparata explicasse debuit *magnum* et *parrum*, et *maximum* et *minimum*, non minus quam *majora* et *minora*: licet enim hi gradus distinctionis causa, a Grammaticis dicantur *positivi* et *superlativi*, non, tamen

minus proprie fuit Comparativi, quam *majora* et *minora*. Deinde, non fuit hæ Comparationes in sola *quantitate*, ut ille opinatur; sed hæ notæ comparationis transcendunt et *quantitatem* et *qualitatem*, et utrique fuit æque applicabiles. Verum cum voce *majora* et *minora*, in usu vulgari appropriatae sint folummodo Rebus *quantis*, ut veram naturam *comparatorum* intelligamus, necesse est abstrahamus a vulgaribus vocibus, ne vocum ambiguitate decipiamur: quare argumenta Comparata explico per voces Adverbiales, quibus secundum usum vulgarem, et recte, utimur indifferenter pro comparatis, tam in *qualitate*, quam *quantitate*. Notæ comparationis principiores fuit hæ; *magis*, *æque*, *minus*; ex quibus oriuntur, *ralde*, *mediocriter*, *parum*, et *maxime*, *minime*: sic dicimus, *magis* longum, et *magis* album; *æque* longa, et *æque* alba. Verum cum has Notiones Nominaliter et adjectivè exprimimus, utimur diversis vocibus, pro comparatione in *quantitate* et *qualitate*; et dicimus, *magnus* ignis, *intensus* calor; *major* ignis, et *intensior* calor.

Dico, licet strictè loquendo, omnes gradus comparationis possunt reduci ad *magis*, *minus*, et *æque*; tamen cæteri gradus, cum innuant diversitatem graduum, et modi comparandi res, ratio postulat ea in distincta Argumenta Logica Comparata distingui. *E* contra vero, male docetur *æqualia*, *inæqualia*; *similia*, *dissimilia*; *paria*, *imparia*, esse distincta Argumenta Logica, cum in gradibus Comparationis, et A&tu Comparativo, ne minima sit diversitas, sed in foliis subjectis; ut patet ex resolutione harum propositionum; parietes sunt *similes*; id est, *æque* albi; hæ duæ lineæ sunt *æquales*; id est, *æque* longæ; hi numeri sunt *pares*; id est, *æque* multi, seu quanti: in quibus appetit idem omnino esse Logicum Argumentum.

De Accidentibus Mathematicis, quorum *B* est Charakteristicum: Noteatur 1. Praepositiones quæ cum verbis motus junguntur, hinc petendæ sunt; quæ vœulæ (sunt omnes aliæ particulae) admodum sunt ambiguæ, et incertæ significacionis in linguis. Hujusmodi sunt, *per*, *præter*, *trans*, *supra*, *infra*, *ad*, *ab*, *ex*, *in*, &c. quarum significatio hinc determinanda est. 2. Posui sex principales differentias *situs*, sub terminis relativis, quæ ad Mundum applicatae, significant *Oriens*, *Occidens*, *Septentrio*, *Auster*, *Zenith*, *nadir*: ad *hominem* relatæ, vel *brutum*, vel *Artefactum*, significant *ante*, *post*, *dextra*, *sinistra*, *supra*, *infra*.

Sub Genere *D* posui illas Notiones quæ solent a Physicis, in parte Physicæ generali tractari; de quibus hic nihil singulare notabo, nisi quod numerum harum multum auxerim (propter majorem facilitatem Communicationis) supra quem invenerim in Philosophorum scriptis.

Sub *G* complexus sum Notiones Physicas magis speciales, id est, *qualitates sensibiles*; quas distribui secundum ordinem sensuum, progrediendo ab imperfectioribus ad perfectiora. Deque his notetur. 1. Desiderari in Linguis vernaculis vocem Genericam ad significandum objectum *tactus*; cum tamen ratio postulet ut objectum *Tactus* una voce significetur, non minus quam *color*, *sonus*, *odor*, *sapor*. 2. Tanta est affinitas sensuum *gustus* et *olfactus*, ut vix censem illos dicendos distinctos sensus: nec minori cum ratione, (meo judicio) secundum opinionem Scaligeri, appetitus venereus distingui potest a sensu tactus. 3. Cum duplex sit objectum generale *visus*, ego posui *colorem* ut principale objectum, et *lucem* ut speciem sub eo; non ignoro tamen multos Philosophos afferere, *Colorem* esse potius speciem *lucis*.

De Genere *P* Not. 1. Quod hic non expreßerim potentias sensitivas *externas* [hic] quia satis commode formantur ab organis sensibus, quæ Radicaria fuit inter membra corporis. 2. Differentiae Generice in Tabulis positæ, striæ et proprie loquendo tales non fuit; nec tales (ausim afferere) possibile est invenire instituto meo applicabiles; quare docendi causa solum, passiones ita distinguuntur, in *principales*, *minus principales*, et *affines*, &c. 3. Me pleniorum Passionum enumerationem fecisse, quam inveniri potest apud quemvis Philosophum qui materiam hanc tractavit; et tamen præcipuas tantum enumeravi: numerus enim passionum in variis hominibus est infinitus; nemo est qui non habeat in se qualidam passiones, quæ in nullo alio inveniuntur. 4. Omnes *virtutes* hinc præcipue petendæ fuit; cum virtus nihil sit aliud, quam debita moderatio animi motuum, *vitium* vero, defectus vel excessus eorundem.

Atque hic filum Explicationis rumpam; multa confulto tacens, partim quod sciam Homines doctos, et hujus operis dignos censores, ex paucis quæ haec tenus dicta fuit, rationem Methodi in sequentibus fatis apprehensuros, partim etiam propter alias causas.

C A P. V I.

DE INSTITUTIONE VERBORUM, SEU SIGNORUM APPLICATIONE
AD TABULAS.

QUI in praxi hujus Artis verfari velit, diligenter attendat Regulas hoc capite traditas.

1. Ordo literarum, ut capite primo docetur, perfe&te tenendus et p&rae oculis ponendus est.

2. Conatus eram omni studio, tot Summa Genera Rerum constituere quot soni simplices sunt, idque methodo correspondenti inter *Signum* et *Signatum*; verum multa erant quae hinc conatur obstatant. Quantum tamen potui, convenientiam Symbolicam inter *Signum* et *Signatum*, etiam in prima signorum impositione observavi: ut consideranti patebit.

3. Summa Genera Rerum Septem primis literis notantur. id est, *vocabilibus*; quibus subjungitur litera *v*, distinctionis causa, et ut voces flexionis sint capaces: *v* enim praecedens, semper est nota distinctionis numericæ; ipsum tamen *v* nullum numerum significat, sed tantummodo distinguit voces numericæ ab aliis vocibus; nam ab est basis, sed *vab* significat 14.

4. Literæ *ei* et *s*, in vocibus *Genericis*, sunt tantummodo serviles et *Expletive*, ad faciendam integrum vocem; nam in summis Generibus Concretorum et Accidentium, Litera Charactistica est unica: sic, *M* est concretum Mathematicum; *N* Concretum physis; *S* Accidens Commune: quare his addendæ sunt Literæ in hoc casu serviles *eis*, sic *Meis*, *Neis*, *Seis*. In Generibus vero Intermediis Accidentium, quorum duæ sunt literæ Charactisticae, fola *S* asciicitur in fine; ut *gos*, color, *gis*, sonus, &c. Sic etiam in Notionibus Genericis partium corporis; ubi Nomina Specierum formantur additione vocalium ante literam Genericam, *ei* additur ad vocem Genericam faciendam; ut *eim*, *ein*, &c. Cum vero species formantur subsecutione vocalium, Species distinguuntur, tunc Nomen Genericum formatur additione terminationis *eis*; ut *meis*, *neis*, *feis*, &c.

5. Summa Genera Concretorum tribus consonantibus nasalibus notantur; quibus addenda est terminatio *eis*, ut voces integræ fiant, ut jam dictum.

6. Intermedia Genera Concretorum saepius Poly syllabica sunt, propterea quod adseficant literas Chara&teristicas Generum inferiorum. Sic cum Concretum Phyficum dividitur in haec tria intermedia Genera, *Inanimatum*, *Planta*, *Brutum*, tres literæ *m*, *n*, *f*, sunt Chara&teristicæ *Inanimati*, et copulantur cum litera Generica *N*, per servilem diphthongum *ei*; sic, *Neimueif*. Sie *b d g* sunt Chara&teristicæ *Plantæ*, et fit *neildeig*: *p t k*, *Bruti*, et fit *Neipteik*.

7. In Nominibus Specierum infimiarum componendis, quæ Chara&teribus minusculis in Tabulis distinguuntur, Literæ duæ posteriores, quarum prior significativa est Generis intermedii, posterior vero ipsius Speciei, foliæ septem vocales, et novem principaliores Consonantes, locum habent.

8. In Tabulis Concretorum, Litera secunda (hœ est vocalis) est Chara&teristica Speciei; tertia vero, seil. Consonans, est Chara&terist. Generis intermedii. In Tabulis vero Accidentium, contrario modo se habet, ut patet comparando Tabulas.

9. Nomina Notionum incompletarum in Tabulis Concretorum, id est, Partium Rerum, sunt etiam voces incompletæ et multilæ: id est, biliterales (duplices enim literæ *fr*, *fl*, *sm*, *sn*, &c. habendæ sunt pro simplicibus, quæ loco simplicium literarum supponuntur, propter penuriam literarum simplicium) quæ quantum literarum distributio finebat, habent præcipuam Chara&teristicam Literam sui Integri seu Totius, eujus sunt partes: Sic partes *Figureæ* habent *b*, quæ est Charact. Figureæ; idem videtur in partibus *Cæli*, *Ignis*, &c. ad quarum species distinguendas *s r l* sunt Chara&teristicæ, quæ nullo alio casu sunt Chara&teristicæ specierum. Sic Nomina partium *Animalis* (quod omnium corporum Naturalium est perfectissimum, ideoque plurimas habet partes) componuntur ex *m*, *n*, *f*, quæ Chara&teristicæ sunt *Animalis*, septem vocalibus distinguentibus species, nunc vocalibus præcedentibus, nunc subsequentibus. Verum tamen Notandum, quod Literarum distributio non finebat, absque confusione cum aliis vocibus, omnes partes sic notare, per Chara&teristicon Nominis sui *Integri* seu *Totius*, ut patet ex partibus *Domus* et *Navis*.

10. Literæ *r* et *l* sunt Serviles in Tabulis Accidentium : *r* est signum oppositæ Notionis, *l* mediae inter duas extremas. Eundem habent usum in Nominibus *Partium*, in Tabulis Concretorum ; Verum in Nominibus Concretorum integrorum seu Completorum, hæ Literæ post *f* ponuntur, propter defectum Literarum simplicium, et copiam differentiarum Rerum ; ut etiam aliquando *s* additur in initio, propter eandem causam, tam in Tabulis Concretorum, quam Accidentium.

11. Regula oppositionis et Medii locum habet in foliis Accidentibus, et Notionibus incompletis inter Concreta ; De quibus tenendum, Ratiosrem Oppositionis non semper esse manifestam, sed ad modum oppositorum quædam disponuntur, quæ stricte loquendo talia non sunt : partim ad sublevandam Memoriam ; sed præcipue, ut facilius comprehendi possint sub Generibus, et vocibus aptis insigniri, secundum Analogiam et Regulas Generales hujus Artis.

12. Litera *I* potest, ubiquecumque Euphoniam postulat, addi fini vocis desinenter in consonantem ; cuius usus sic erit mere Euphonieus, nisi quod necessario adsumenda sit in plurali numero, quia eadem consonans nequit duplicari fine vocali sequenti. Sic etiam, *i* servilis præcedit consonantem finalem, voci Radicali advenientem per flexionem Grammaticam, cum natura vocis non postulat aliam vocalem significativam præcedere.

13. Nullam reddo rationem Institutionis Nominum Animæ, Angeli, quæ concreta sunt Spiritualia, nisi simplex Arbitrium ; sunt tamen eorum Nomina satis distincta ab omnibus aliis vocibus. Deum *O. M.* intra Prædicamenti limites non concludo, sed ejus Nomen est vel sic efférendum, *sasva*, Causa Prima ; vel *Aav*, Ens Entium.

14. *S* est Litera servilis in vocibus numericis, quæ intervenit et distinguit inter literas numeri significativas, et literas Grammaticales Flexiones significantes.

15. Cum quælibet vox, ut ingreditur orationem, sit sub aliqua Grammaticali Flexione, hinc vox pure Radicalis est aliquid abstractum ab omni respectu Grammaticali : verum brevitatis causa, appropriavi vocem ex foliis Radicalibus Literis constantem Notionibus Particularum significandis ; quas omnes a Radicalibus Notionibus Tabularum derivari, Logicæ est Mysterium in hac Arte Revelatum.

16. Cum voces mutilæ, (id est, Nomina Partium) incipientes a vocali, ingrediuntur Compositionem, ad modum differentiæ (non Generis) adfeſcent i servilem, distinctionis cauſa, ne fiat confusio cum aliis vocibus.

17. Accentum quod attinet in hac Lingua, tenendum breviter. In vocibus dissyllabis penultima est longa; in plurisyllabis est brevis, niſi longa fuerit positione duarum consonantium.

18. Ad distinctionē et Euphonice efferrendum voces seu fonos hujus Linguæ, hoc unicum requiritur: Accurate distinguerē fonoſ septem vocalium, et Regulam de Accentu jam traditam bene attendere.

19. Vox primitiva pure Radicalis ex Tabulis Concretorum, significat ipsam notionem Concretam, Nominaliter, in easu recto; eadem ex Tabulis Accidentium, significat Notionem Particulæ, ut dictum.

20. In Compositione vox Generica praecedere debet, differentialis sequi; ut, *Nykbeisam* elephas, non *Beisamnuk*, *Snyfgab* adamas, non *Gabsnuf*.

21. Ultimo, confulo ne diu haereatur in Praeceptis et Regulis contemplandis, sed statim ad Praxin progrediatur; ex modica enim praxi, facilitia admodum invenientur, quæ primo intuitu et non exercitato difficultia videntur. Et quod est bene observandum, licet hie signa non ex mero Arbitrio, sed cum ratione Instituantur; adeoque Memoriae semel impreſſa, Intellectum erudiant de Rerum naturis; tamen in Committendo voces Radicales Memoriae (quod est primum faciendum in ordine ad praxin) parum, vel nihil attendenda est Rerum et Signorum Methodus in Tabulis: via enim datur multo compendiosior imprimendi Signa Memoriae, de qua pauca dicentur capite ſequenti.

CAP. VII.

DE SUBSIDIIS MNEMONICIS.

RERUM et Conceptuum nostrorum Signa dupliciter in Memoria reponimus et conservamus. Primo frequenti repetitione ineuleando; ita ut Signum auditum vel visum, frequenti usu, videatur Res ipsa, licet ab ea diversissimum: Tantum feil. valet usus. Et quidem sola haec actum repetitorum frequentia efficere potest ut memoria extempore suo officio fungatur, sine Intellectus ductu, five res memoranda Methodice disponantur, five omni Methodo sint solutae. Nec facilis acquiritur facilitas et habitus memorandi certum aliquem numerum Rerum maxime methodice dispositarum (hoc est, ita ut earum quaelibet separatim statim designari possit, sine mentis disperstu) quam par numerus Rerum non cohaerentium reponi potest in Memoria; Et Ratio hujus est, quod Memoria (si licet Animi Facultates distinguere) sit Facultas omnino Passiva et receptiva Idearum, ab aliis animi Potentiis sibi conereditarum, et ad eam nihil spectat, (cum omnino cœca sit, et omnis cognitionis et judicii expers) quo pacto res ad ipsam deferantur, Arte, an Sorte, quoenamque easu, vel Confilio; illa agit confermando et retinendo secundum suas vires naturales. Et quidem si proprie loqui velimus, in Memoria Artificiali, five id fiat in Rerum Serie Legitima et naturali, five per fictam mentis connexionem, Memoria hie nihil praefat Artificiale supra suas vires naturales. Sed totum hoc est Rationis opus, educentis ex Memoria Signa vel Res, in ipsa olim receptas et depositas.

2. Ratio humana, quæ Scientiæ Compendio quantum potest naturaliter studet, Memoriae imbecilitati opitulatur, operando connexionem Rei Ignotæ cum Re Nota, vel Rei Memoranda cum re Memorata: in hoc enim solo, tota Ars Memoriae sita est. Et quidem hic est naturalis effectus Rationis in homine; videmus enim saepissime in puerò vel servo, si ipsis mandetur Nomen aliquod incognitum recordari, statim Ratio, quasi natu-

rali instinctu, configuit ad compositionem hujus Rei Incognitæ cum alia Cognita affinis foni. Hæc autem compositio dupliciter fit; vel 1. Ubi est necessaria, et naturalis Rerum ipsarum connexionio; vel 2. Fit per solam Mentis Fictionem. Cum compositio fit secundum Rerum ipsarum Naturas, vel Generalem aliquam Regulam, eo firmior est et permanentior: Exempla harum sunt omnes Compositiones et Derivationes in Lingua Rationali, et etiam quæ in aliis Linguis regulariter fiunt. Sic, cum quis didicet primam conjugationem, ex verbo *amo*; postea si audiat hanc vocem *vigilabunt*, ejus significationem statim intelliget (modo quid significet *vigilo* prius intelligat) quamvis hanc vocem, *vigilabunt*, nunquam antea audiverit. Ratio est, quia intelligit per partes, 1. quid significet *vigilo*: 2. Quid terminatio *bunt*; quare etiam partes regulariter compositas, intelligit. Exempla compositionis Fictione sunt voces Radicales sequentis Lexici, quæ longe facilius in Memoria reponuntur, per fictionem hanc connexionem, quam per discursum Logicum; etiam si supponeretur Methodum hanc Notionum ita Logicam et Naturalem esse, ut Ratio non minus facile possit eas percurrere, quam Literas Alphabeticas recitare. Hoe feio videbitur multis valde absurdum; est tamen experientia certissimum, et Ratio etiam evidens est hæc; Discursus Logicus, est via multo longior ad inveniendum Signum, quam connexionio hæc ficta; dum enim ego ex discursu logico, quaesitus sum vocem hujus Linguæ pro *animositate*, necesse est Ratio formet omnes hos distinctos Actus; est Accidens; est accidens physicum, sensitivum, cuius *P* est Charakterist. 2. Est sub genere intermedio *quinto*, et est species *septima* sub hoc Genere. Quare licet Methodus esset ita perspicua, ut ratio sine errore possit omnia hæc percurrere, tamen hæc esset maxima tortura Mentis, tam longum discursum formare pro singulis vocibus. At vero, in ficta compositione, unius tantum est actus Mentis ad inveniendum signum: sic, *v, g, pop* *æstimationis*; ego finxi connexionem inter *papam* et *æstimationem*: Cum igitur audio hanc vocem *æstimationis*, statim, etiam sine ullo discursu, recordor *pope*: Vel si audivero *pope*, vicissim statim recordor *æstimationis*. Et quidem, sicut parvo labore possunt voces Radicales memoriae mandari per hanc Artem, sic parvo admodum exercitio, possunt homines satis expedite communicare, ex vocibus hac ratione in Memoria repositis. Fateor, ad recordandum voces extempore, fine ullo Rationis et judicij ex-

ereditio, habitum requirit; ad quem dignandum in Memoria, nec Ratio vera, nec ficta multum conduceunt, sed sola repetitio frequens, ut supra.

Qui igitur recordatur per hanc fictam connexionem (quæ duarum Rerum tantummodo est) fine ullo respectu ad res alias, comparari potest ei qui querens duos amicos, reperit eos solos in Domo aliqua Ampla: Qui vero recordatur per disserendum Logicum, pertransiendo longam Seriem et Catenam Notionum, illi, qui querit duos amicos in Templo inter mille alios homines. Vel possunt hi comparari duobus hominibus a Palatio Regio Londini, vicum Lambeth ex adverso petituris; alter Fluvium Tamisum cyma recta trajicit, alter circuitum facit per pontem. Quare consulo ei qui voces Radicale Memoriae committere velit, ut prorsus negligat Methodum Philosophicam Tabularum, et hae sola Ficta Connexione, utpote multo compendiosiore utatur. Hic ponam exemplum 60 Vocabulium Radicalium, ex quibus judicari potest de cæteris.

<i>France, table.</i>	<i>Puf, observare.</i>
<i>Flanders, aratum.</i>	<i>Pudden, attendere.</i>
<i>Pomum, admiratio.</i>	<i>Pater, concipere.</i>
<i>Adam, succus.</i>	<i>Grumble, nutrire.</i>
<i>Edmundus, cortex.</i>	<i>Framea, filum.</i>
<i>Ugly, arista.</i>	<i>Fabula, organum.</i>
<i>Pot, animositas.</i>	<i>Sibylla, verum.</i>
<i>Fanum, domus.</i>	<i>Cobler, proscribere.</i>
<i>Actæon, ostium.</i>	<i>Cogan, incarcерare.</i>
<i>Fens, pons.</i>	<i>Pipe, diligens.</i>
<i>Pope, aestimatio.</i>	<i>Pride, affabilitas.</i>
<i>Marble, circulus.</i>	<i>Podex, ira.</i>
<i>Samuel, efficiens.</i>	<i>Sand, materia.</i>
<i>Sin, pulchrum.</i>	<i>Bag, concavitas.</i>
<i>Bed, extra.</i>	<i>Poket, liberalis.</i>
<i>Before, ante.</i>	<i>Ass, stella.</i>
<i>Barbara, rectus.</i>	<i>Ise, mare.</i>
<i>Gomorrha, lux.</i>	<i>Flamma, panis.</i>
<i>Dod, solvere.</i>	<i>Toperie, hasta.</i>
<i>Dog, aperire.</i>	<i>Dok, spargere.</i>
<i>God, ruber.</i>	<i>Sno, vesica.</i>

<i>Foe, venter.</i>	<i>Sem, incipere.</i>
<i>Ant, humor.</i>	<i>Purgatorium, simulare.</i>
<i>Dik, pungere.</i>	<i>Prin, ferus.</i>
<i>Globus, flavus.</i>	<i>Beg, extremum.</i>
<i>Tattle, meditatio.</i>	<i>Game, dulce.</i>
<i>Tom, litera.</i>	<i>Fringe, Cathedra.</i>
<i>Smat, manus.</i>	<i>Fæmina, theca.</i>
<i>Suggar, Commune.</i>	<i>Sidney, honestus.</i>
<i>Dig, percutere.</i>	<i>Gabulum, durum.</i>

Poterit quilibet ingeniosus, bis vel ter relegendo has voces, eas ita Memoriae committere, ut cogitatione facta de una, statim altera memoriae succurrat. Sic eum ego audio vocem *sīn*, statim recordor *pulchritudinis*; et vice versa.

Quamobrem ex hac instantia evidens fatis videtur, facili negotio posse omnes voces Radicales hujus Linguae, unius Septimanæ spatio, in Memoria reponi; et si altera ad Praxin accidat, poterit structura orationis ex his fieri, et mutua Communicatio inter Homines, non minus quam in aliis Linguis: Et hoc est quod ab hominibus habetur fabulosum, et impossibile, ideoque incredibile.

CAP. VIII.

DE FLEXIONIBUS GRAMMATICALIBUS.

HACTENUS explicatio Lexici et vocum Radicalium; sequitur quedam dicimus de Flexionibus Grammaticis, in derivatione, Compositione, et Structura orationis.

Docent Grammatie *octo* esse partes orationis: Logici melius, *duas* tantum statuunt. Ego vero, secundum libertatem Philosophandi quam hic mihi arrogavi, *unicam* tantum Orationis partem, Primariam, et proprie fix

dicitam agnoscet; *Nomen* scilicet. Caeteras vero vulgo sic habitas, esse inter Flexiones, et Casus hujus, numerandas. Ratio assertiois haec est; omne *Ens* quodeunque necessario primo locum habet in linea praedicamentali; omnis autem Notio praedicamentalis est *Nomen*. Quare sequetur, Verbum esse tantum Casum, seu Flexionem Nominis, non minus quam aliae partes a Grammaticis enumeratae.

Res haec extra contraversiam erit, si evinceam a Logicis unicum istud verbum Substantivum (Sum) derivari a Nomine praedicamentali: Quod conabor facere, 1. Negative, ostendendo *sum* non derivari ab *Ente*. 2. Positive, ostendendo veram verbi Substantivi originem.

Dico primo, Verbum Substantivum, quod copula est in omni Propositione, non derivatur ab *Ente* (non nego posse derivari verbum ab *Ente*, non minus quam a Notionibus *Substantiae*, et *Accidentis*; verum hoc verbum longe aliud est a verbo Substantivo) quod ex resolutione harum duarum Propositionum demonstro. 1. *Homo est ens*. 2. *Homo est*. Si quis admettit primam propositionem esse legitimam, et constantem tribus terminis distinctis, Subiecto, Copula, et praedicato (quae partes sunt essentiales omnis propositionis) habeo intentum. Si dicatur hanc prop. esse Tautolog. et vocem *Ens* redundare, et quod haec *Homo est*, significet totum quod *Homo est Ens*; Insto, vel haec nulla est Proposition, vel necessario est resolvenda in *Tres Terminos Mentales*, licet hic *duabus* vocibus expressos. Quare, haec duas voces vel non significant ad modum Propositionis, vel resolvenda est est in *duos* terminos, *copulam* scilicet, et *praedicatum*. Et sic habeo quod volo: *copulam* propositionis esse aliquid distinctum a Notione *Entis*.

2. Positive ostendo veram Verbi substantivi originem. Verbum, fatentibus omnibus, nihil est aliud, quam pars *Formalis* propositionis, id est, Signum Actus Mentis *Judicativi*. Cum vero Judicium dupliciter feratur de Objecto, vel per assensum vel disensum, (qui actus vocibus expressi dicuntur *affirmatio* et *negatio*) hinc sequitur duplex esse Verbum Substantivum, respondens duplice Actui Mentis *Judicativo*: quae duo verba sunt casus Notionum *affirmare*, et *negare*, quae secundum leges praedicamentales primo concipienda sunt Nominaliter. Et bene hic tenendum est, Verbum (qua tale) esse meram copulam, et Signum Actus *Judicativi*; et Tempus esse quid extrinsecum ejus significationi. Non male igitur supponi possunt

hæc voces (*ita*) et (*non*) pro propriis Verbis Logicis, et Signis actuum Judicativorum; quæ voces, etiam secundum usum vulgarem loquendi, ponuntur verbaliter. Ut, an Petrus est in domo? R. *ita*, *non*. id est, Petrus est in domo, Petrus non est in domo: vel magis Logice, sic. Petrus *ita* in domo; Petrus *non* in domo. Nam observetur has voces non significare adverbialiter, eo modo quo *doce*, *male*, *bene*. Sic enim voces *affirmative*, *negative*, sunt adverbia notionum *affirmare* et *negare*. Sed significant Judicium copulative: Et Ubicunque inveniuntur in oratione, significant ad modum copulae inter subiectum et praedicatum, licet absurdè ex vulgari usu, hæc vox *est* cum iis jungatur in propositione. Imo in propositionibus negativis est implicatio in ipsis terminis, dum nota *affirmandi* cum nota *negandi* jungitur. Homo *non est* lapis; quasi homo *non ita* lapis: Saltem nota *affirmationis* est redundans. Duo igitur sunt verba, *ita* et *non*. Cumque Verbum Negativum non ingrediatur propositionem Affirmativam, est non minus absurdum ut Verbum Affirmativum ingrediatur propositionem Negativam.

Ex dictis etiam patet, quam absurdâ fit eorum opinio, qui docent verbum Substantivum non esse necessarium ad faciendum propositionem: Pari enim ratione docere possunt, Subiectum vel Praedicatum non esse necessaria; est enim pars Essentialis et maxime Principalis propositionis. Hoe quidem verum est, posse Copulam, compendii gratia includi in eadem voce cum Praedicato, vel et Praedicato et Subiecto: *r*, *g*, hæc vox *amamus*, continet in se 4 distinctas Notiones; id est, *nos*, *præsenti temporis*, *sumus*, (vel potius *ita*) *amantes*.

Insuper ex dictis infero, nullam esse Negationem in terminis simplicibus; omnis enim Negatio est Actus Mentis, separans aliquid ab aliquo. Quare, maxima pars Doctrinæ Logice, quæ tractat de æquipollentia et conversione propositionum, est vana, inutilis, et absurdâ. Quis Bubulus non docebit Logicum sic enuntiantem, *Homo est non lapis*, significantius dicere *homo non est lapis?* Nulla igitur est propositio terminis negativis constans, cuius Negatio, per resolutionem Logicam, non reducatur ad Copulam.

Hoc igitur stabilito, quod unica tantum sit Pars orationis principalis; tot diei possunt minus principales, quot Grammaticæ Flexiones, et variationes; quarum numerus potest esse vel major, vel minor. prout quis stat-

tuat pluribus vel paucioribus Particulis Auxiliaribus, in structura Orationis uti. Hinc quedam Linguae, pro circumstantiis temporis, modorum, personarum, gradibus comparationis, utuntur vocibus distinctis et separatis; aliae, has circumstantias terminationum varietate distinguunt. Quos autem diversos respectus et circumstantias ego hie admiserim terminationum varietate significari, ex Tabula Grammaticalium Flexionum patet; in quibus explicandis non infistam cum satis notae sint ex exemplis.

Quod de numero Notionum Radicalium notavi, ni. quod viam medium inter duo extrema elegerim, hoc idem facio in Grammaticis Flexionibus; non enim toties vario vocem Terminationibus distinctis, ad diversos modos et circumstantias exprimendum, quoties compendii causa per Regulas certas potuissim; cum non sit necessarium sic facere, et memoriam valde oneraret, confusione praeterea pariens in Signis. Mirum est quot varias Terminationes non necessarias quedam Linguae admittant.

Nec. 2. Ita striete Logicas Regulas sequor, ut eadem rigiditas observeatur in compositione et structura Orationis, quae in Analysi; hoc est, ut omnes distinctae partes distinctis vocibus exprimantur: Certum enim mihi videtur, omnem Grammaticam Flexionem distinctum aliquid superaddere Radicali Notioni; qui respectus distinctis et separatis vocibus exprimi possunt, nisi aliter fieret compendii causa. Quare ut dixi, media via incedo, praecipuas modales Variationes Terminationum varietate distinguens, alias vero vocibus separatis. Sicut igitur nulla vox Primitiva admittenda est in haec Lingua nisi quae in Tabulis habetur, sic nulla Derivativa, nisi quae secundum has Grammaticas Flexiones fit. Non necessarium est moneam, non omnem Notiōem Primitivam capacem esse omnium harum Flexionum. Hoc tamen observatu dignum est; hanc Linguam esse longe copiofiorem in Derivationibus et Compositionibus quam quaelibet alia Lingua; variabilitas enim in Notione est Regula variandi vocem; Cum Derivationes Linguarum vulgarium coarentur inter breves gyros Regularum Grammaticalium. Quarum nulla alia ratio reddi potest, nisi placitum et Arbitrium Majorum nostrorum; idque mero Casu factum: Contra quem receptum usum loquendi, si quis loquatur secundum Regulas Logicas, Barbarus habebitur; Quales essent hujusmodi phrases, *ignifica*, *luminifica* candalam; *inignifica*, *inluminifica*, pro *extingue*. Sic non licet dicere, *tendile*,

dabile, scribibile, ridax, legax, ocululus, manulus, pedulus; Cum tamen haec notiones, et huiusmodi ferae infinitae, postulent eandem Flexionem cum aliis, quam Linguarum Analogia iis contra omnem Rationem denegat.

Notabilis est haec differentia (inter plurimas alias) inter hanc Linguam et vulgares: In vulgaribus, habent Regulas quas vocant *Elegantia*, et *ornatus*, quae sumpissime potius dicendae sunt *Absurditatis*. Ita in malum omne fumus nos depravati homines proni, et in vetita ruimus; ut non folium pro maximis corporis nostri ornamenti habeamus, quae corporis sanitati, et naturae ipsi sumpissime adversantur, sed etiam Animas nostras, absurdis Figmentis, pro veris Scientiae Dotibus corrumpimus. In hac lingua omnis *Elegantia* in hoc sita est, ut λόγος externus sit interno perfecte conformis, ita, ut sermo sit *Analysis Logica Conceptuum nostrorum*: Et nemo hic potest ornare et eleganter loqui, et orationem construere, nisi bonus Logicus, qui eandem in suas partes noverit resolvere. Nec tamen hinc sequitur, neminem posse sensa sua hac Lingua exprimere, nisi Logicæ Artis peritus: potest enim quis Logicæ (Artis) rudis sensa sua hac lingua modo intelligibili patefacere: quod fatis manifestum est ex aliis Linguis. Potest enim Rusticus, sensa sua exprimere de Rebus ipsi notis, ita ut ab aliis intelligatur: at vero Logicus plurimas absurditates in ejus sermone inveniet. Sed e contra, hoc bene sequitur; Ea quae Logicus profert, facilia intellectu omnibus futura, ni si materia sermonis sit ipsis nota: Et hoc fatis etiam manifestum est ex Linguis vulgaribus, in quibus multo facilius est intelligere quam loqui; quod multo magis hic locum habet.

Hic infuper notari velim, quod Artis Logicæ ignarus, dum hac Lingua utitur, aptus erit Phrasilogiam suæ linguae sequi, quae sumpius absurdia et insignificans est. Homines enim, priusquam præceptis Logicis imbuantur, loquuntur in multis more puerorum: Formulas quasdam traditione acceperunt, quibus utendi libertate sublata, obmutescunt. Si enim inhibetur Rusticus Anglus uti his phrasibus, *he must be born with; put out the candle;* mutis fitabit. Ratio est, quod has phrases ex consuetudine quasdam addidicet ad tales conceptus exprimendos, Logicam vero Analysis horum complexorum conceptuum perficiere in mente nequit: Et quidem nonnulli sunt respectus Rerum, et concursum Notionum, quos Logice exprimere est per difficile: Imo fastigium est acuminis Logici, posse bene

Animi sensa hac Lingua exprimere. Quamobrem ad manuducendum Logice Artis ignaros in hanc linguam (id est, in veram praxin Logicae) facienda est collectio quarundam Formularum ex Linguis vulgaribus, quae Logice resolvendae sunt per voces hujus Linguae.

Hie etiam notatu dignum est, bene admitti posse variandi Formulas ad eandem Rem exprimendam in hac Lingua, non minus quam in aliis; sicut enim 4. et 4. vel 5. et 3. vel 2. et 6. faciunt octo, sic ex diversis simplificibus Notionibus potest idem sensus fieri.

Compositio in hac Lingua est duarum vel plurium dictiorum in unam coalitio, majoris compendii causa in conceptibus nostris patefaciendis et communicandis. Atque hoc fieri potest pro re nata, quodlibet cum quolibet componendo; modo termini simplices eodem modo significant in Compositione quo extra compositionem. Cum enim rerum habitudines et Respectus mutui et Differentiae ita infinite varient, nec ad haec singula significanda dari potest vox simplex primitiva; et omnes Animi conceptus ex paucis primis vocibus sine ulla variatione exprimere impossibile esset sine longissimis periphrasibus; ideo compendii causa necessario admittenda sunt Derivationes et Compositiones. Et hie tenendum est, illas Notiones quas Derivativas appellamus, si stricte loqui velimus, esse revera compositas; distinctionem tamen facimus, quod illae per additionem multilae Terminationis, vel etiam Praepositionis, fiant; haec vero ex integris vocibus separatim significantibus. *Filiolus* enim est vox composita, ex *filio* et *paro*; *durior* ex *duro* et *magis*, logice loquendo: appellantur tamen haec voces Derivative, quia alter terminus compositionis multila terminatione exprimitur.

Hinc est quod eo perfectior habeatur Lingua aliqua, quanto capaces sint ejus voces Derivationis et Compositionis; ideoque Lingua Graeca praे omnibus nobis notis præfertur, propter verborum copiam ex Derivatione et Compositione, eaque est folia Lingua quam adhuc habuerunt Philosophi idoneam ad Artes docendas: quod unicum Argumentum (seposita fide Historica) Graecos Gentem doctam et Philosophiae primos cultores arguit. Et hodie observare licet, Gentes cultiores Compositionis et Derivationis Artem indies augere in suis Linguis vernaculis; sic Angli *self-denial, fellow-feeling*, et infinita fere familia quotidie excogitantur. Concluendo igitur,

licere in haec Lingua quodlibet cum quolibet componere, modo significanter et ad rem fiat ; focus absurditas committitur.

Not. denique, Compositionem quod attinet; quaesdam esse Notiones communes, quae saepissime Compositionem ingredientes in multis Linguis, per modum mutilarum Particularum, vocibus cum quibus componuntur, præponuntur, et ideo verius dicendæ sunt derivativæ quam Compositæ: hujusmodi sunt Latine, *re, cou, am, se, in, ad, ab, &c.* quæ in haec Lingua Leges Compositionis fervant; hoc est, tota vox simplex Compositionem ingreditur.

C A P. IX.

DE SYNTAXI.

STRUCTURA orationis illi qui suos conceptus resolvere potest, facilis admittit; pro qua haec Regula generalis teneatur. *Idem sit ordo Signorum et Orationis, qui Mentis Conceptuum seu Actuum Rationis.* Mirum est, quanta fit transpositio vocum de suis locis propriis et naturalibus per hysteron-proteron in quibusdam Linguis, præcipue Latina; adeo ut saepissime eveniat, hominem omnia verba singulatim sumpta satis intelligentem, sensum tamen integræ orationis, fine longo discursu capere non posse. Cui rei procul dubio occasione præcipue dedit Numerus, qui ab Oratoribus in oratione Soluta observatur, non minus quam in Ligata, quique ad Regulas Artis forte reduci poterit, non minus quam Poeticus. Verum in haec Lingua non est ferendum, ut aures demuleantur cum animi jaætura, quod raro admodum aliter fit, præcipue a Poetis et Fictionum Amatoriarum Scriptoribus, cui generi hominum, qui nihil aliud quam spumam turbidae Mentis ebullire solent, fateor me parum favere: Censeo enim hos Peftes Reipublicæ pernicioſissimas; nam Mentes teneras Juvenum, honestis Artium præceptis et Virtutis praxi jam imbuendas, vitiant et polluunt. Uteunque, aliud remedium hic inventum est ad numerorum concentuum

harmonicum supplendum, absque orationis strūturæ Logicæ perturbatione ; ni. interpositio fervilis literæ i quoties Euphonia postulat.

Regulae particulares sunt. Primo, *Substantivum præcedat Adjectivum* ; *sic, fœf goma, charta alba, fœf groma, atramentum nigrum.*

2. *Agens præcedat verbum acticum, patiens sequatur* ; ut *sunilli ponesi Sava, omnes auant Deum* ; *Sava ponesi lalli sunilli, Deus amat nos omnes.*

3. *Adverbium sequitur verbum* ; ut, *lal trim sef trimesu simai, ego non possum scribere bene* ; *lelil sprdesi pipai, ille laborat diligenter.*

4. Modus ille loquendi qui Latinis, *Ablativi absolute positi* dicitur, qui Græcis in Genitivo casu ponuntur, Angli vero Constructionem hanc per voces, *having, being, exprimunt*, est loquendi compendium quod in integrum propositionem resolvit; verum propter frequentem usum admittendum est hoc compendium: Cumque haec Construcción semper fere resolvatur in Tempus, per voces *cum, dum, post, &c.* ideo particula temporis erit hujus phrasis significativa; ut, *dan lollir tino, lel softinesa shvmdan ; shbdan lel slemesa tinesu*, his dictis, *siluit aliquandiu*; *postea vero progressus est loqui, seu continuavit sermonem*: *dan lolir samo lelil, sofslemesa sprdesu*, hoc facto *essavit ab opere, vel operando*: *dan lal trimeso, lelil bredprædesa, me scribente ille ingressus est.* Notiones Temporis, ut Philosophis difficiles intellectu, sic Grammaticis expressu. Haec construcción Anglice sèpe dicit respectum ad *causam*, et tunc per particulam causæ reddenda est; ut, *My hand being weary I cannot write longer*; id est, *sas sunu lala sprgo, lal trim sef trimeso danibai*, vel *sndan*. Multis modis possunt hujusmodi phrases variari, et omnes significare et Logice et Emphatice.

5. *Nomen Adjectivum et Genitivus casus, per strictam Analysis Logicam, candeum constituant Notionem, seu Nominis Radicalis Flexionem, et ei superaddunt respectum pertinentiae.* Hoe clarius apparebit comparando plurimas diversarum Linguarum; Lingua Hebræa exprimit Flexionem, seu casum Adjectivum (jam enim bene advertendum, quod omnes variationes Notionis Radicalis, sive verbaliter, adverbialiter, adjective, &c. sunt vere Casus, seu Flexiones Nominis Radicalis) maxime proprie sic dictum, per Genitivum Casum, vel faltem per constructionem huic equivalentem; ut, *homo albedinis, homo fortitudinis*; qua phrasí etiam aliquando Angli utuntur; *a man of might, a place of much Light.* Sic vicissim quædam Linguae Geni-

tivum easum propriissime sic dictum a Grammaticis, adiective exprimunt; ut, Anglice, *God's house*, *John's Father*, *William's Son*, *my hand*, *his foot*; sic Latini; *manus mea*, *pes tuus*: Ubi pronomina quae pro Nominibus Substantivis supponuntur, redduntur Adiective. In omnibus quibus, Flexio Adiectiva, seu Genitivus Casus, significat Relationem pertinentiae, possessionis, seu habitionis; Verum ego has Grammaticationes ut distinctas admisi, majoris compendii et claritatis causa. Perdifficile quidem est Regulas certas preferibere, quando Flexio Adiectiva, quando vero genitiva sit utenda; nam ut dixi, in stricta Logica Analyti, sunt eadem omnino flexio seu respectus: Hoc tamen hic offero. Utimur Flexione Genitiva (quae exprimitur per particulam *sif a Radice pertinere*) cum loquimur de duobus notionibus, ita, ut de una earum conceptus fiat in statu abstracto, vel quasi abstracto, separato, et distincto ab alia; ut, *albedo hujus parietis*, *Lux hujus dici*, *manus Petri*; Adiectiva vero, cum duas res concipimus in statu Concreto, composito, et unito; ut *paries albus*, *lux diurna*, *menbra humana*.

6. Admitto Compendii causa distinctionem personae, et rei, fieri per terminaciones in eadem voce cum Nominis Adiectivo, sicut etiam fit in multis aliis Linguis; ut, *Suirri tim samo sam*, vel, *sod Sava*, *omnia facta sunt a Deo*. *Sinalli sodesi simai*, *boni homines bene faciunt*.

7. Construetio Ablativi et Dativi casus, seu quod idem est, particulæ ab et ad sunt significativa relationis motus, ni. a termino, et ad terminum; id est, *actionis et passionis*; ideo optimo jure derivanda sunt haec particulæ a suis propriis Radiebus; ut, *Fef lola triuosa fod lal*, *hic liber scriptus erat a me*. *Lelil prædesa fod fausava*, *stofdadu*, *ille revit a templo*, *foro*. *Sara sp̄besi simarri suna fhod lalli*, *Deus dat nobis omnia bona*.

8. Verborum impersonalium quedam redduntur per adiectivum *Rei*; qualia sunt haec: *oportet*, *convenit*, &c. Sic, *Tim sedar sunilli shipes*, *oportet omnes homines mori*. Hujusmodi vero, *pluit*, *coruscat*, &c. sic reddenda sunt: *nan nanesi*, *ignis coruscat*; *urn urnesi*, *ventus spirat*; *neu neuesi*, *pluvia pluit*.

In propositionibus constantibus duobus Nominibus, ubi nullus habetur explicitus respectus ad differentiam temporis (quod licet non observatum fepissime evenit, ut in propositionibus vulgo dictis æternæ veritatis, magis proprie, necessariæ connexionis) tunc Subiectum et praedicatum copulantur per duo verba substantiva *tim* et *trim*, pro ratione qualitatis propositionis

affirmativa vel negativa; ut, *Sava tim sima, Deus est bonus; Tvsu tim toma, voluntas est libera; sabtrin lola trim nrf, hæc penna non est lapis; Nam trim nom, Cœlum non est terra; lelil trim pono sod sava, ille nou est amatus a Deo.* Cum vero temporis differentia innuitur, reddenda est per flexionem verbi temporis *dan*, sic; *Petrus danesa bred fan, Petrus fuit in domo.* Verum, si addatur particula temporis differentiae significativa separatim, redundaret verbum temporis; ut, *Petrus tim bred fan lola s̄bdangom, non, Petrus danesa bred fan lola s̄bdangom, Petrus fuit in hæ domo heri:* Sic, *Petrus tim bred fan lola loldan vel dlundan, non, Petrus danesi bred fan lola dlundan.*

9. Tenendum, in omnibus propositionibus affirmativis, ubi est verbum adjectivum (id est, conjugatum per flexiones temporis significativas) omitti verbum substantivum, *tim*, compendii causa; in negativis vero semper exprimitur verbum *trim*.

Hic non addam plures Regulas de structura orationis; Logicæ enim peritus fatis sciet ex paucis hic dictis, et capite frequente dicendis de particulis, quomodo connecctere Notiones suas in aliis casibus: alii vero facile acquirent Logicæ praxin, ex praxi hujus Artis.

C A P. X.

DE PARTICULIS.

DIVINA forte magis quam Humana Arte ductus, felicissimo Auspicio, clavem hujus Inventionis primo reperi, propter ejus defecatum, viri Docti, qui ante me hujus Artis Fores sedulo pulsabant, nequibant intrare. Per hanc Clavem intelligo Notiones vulgo *Particularias* vocatas, quæ ita se habent ad Orationem ut anima ad hominem, vel Tendines Nervi et ligamenta ad Corpus, vel Cæmentum ad Ædificium. Subductis enim Particulis ex Oratione, quid remanet? Nisi mortuum Cadaver sine forma hominis? Vel foluta membra sine forma corporis; vel cumulus lapidum

fine forma domus? Et sicut Particulae Formalem et Principaliorem partem Orationis constituant, adeoque difficillimam (tota enim praxis Artis Logicæ et Grammaticæ in iis recte utendis sita est) sic etiam partem orationis maximam faciunt. Quare, dico harum resolutionem et reductionem sub regulis Artis, Inventionis Clavem.

Memini selectum numerum virorum Doctissimorum in Academia Oxoniensi, quibus primo Inventionem hanc communicavi, dum viderent Schema totius Artis in unica pagella exhibitum, Characteribus additis, brevitatem hanc incredibilem omnes mirabantur; præcipue illam partem quæ Particulas complectebatur. Ex his vir clariss. Sethus Ward *T. D.* et Astronomiae Professor in eadem Academia, postea mihi communicavit Tabulas Notionum Philosophicas, quas Artes hanc intendens ipse compofuerat: et licet ad Particulas explicandas, et structuram orationis ex iis nondum defenderat, probabile tamen admodum est, quod labores ejus temporis progressu, serius aut etius in publicam lucem Artem hanc produxissent. Postea vero mihi nunciatum est de aliorum propositis haec in re; circa enim idem tempus, prodit Liber Anglice, sub Nomine Charakteris Universalis, qui revera nihil aliud novi docebat, quam scribere vel loqui Anglice modo multo difficile quæ vulgo fieri solet. Ingeniosius multo cogitata sua de hac Arte proposuerat Franciscus Lodwick, Civis Londonensis; verum huic Suscepto impar, propterea quod Artis expers, et extra Scholas natus.

Primus igitur meus conatus in hac Arte longe alias erat a Methodo hic exhibita, præcipue in Particularum materia. Primo enim omnes Notiones Primitivas in duas Classes dividebam, Materiales scilicet et Formales: Nomina et Verba et eorum casus partes materiales appellabam, easque Charakteribus Majusculis notabam: Formales seu Particulas, punctulis minusculis circum Charakterem Majusculum nominis vel verbi, designabam; eodem modo quo solent in Arte Brachygraphiæ, vocales per puncta notare circa Characterem consonantis. Et quidem hic modus maximum compendium scribendi docebat; sicut enim in vulgaribus Literis, quilibet Charakter significat partem vocis unius, forte quartam, quintam, sextam, &c. licet minimum punctulum significabat integrum Notionem; *v.g.* haec sententia *ejo amo illum valde bene*, scribebatur unico Charaktere Majusculo pro verbo *amo*; cæteræ particulae per puncta circum hunc Charakterem affixa signi-

ficabantur. Sic hæc fententia: *Sed quoniam nos sœpe molestamur ab illis, ideo nos quoque illos aliquando molestabimus.* Tota hæc fententia duobus Characteribus Majusculis scribebatur, cæteris vocibus per punctula circa Charæterem affixa, expressis.

Verum potea, cum percipiebam multas notiones quibus pro particulis et primitive utebar (jam enim collectionem feceram circiter fere 300 particularum) esse vel revera compositas; quales sunt adverbia temporis, loci, coniunctiones causales; ut, *hic, illuc, ubique, aliquando, quando, sœpe, quare, ideo, &c.* Alias vero nihil esse aliud quam adverbia modi, quales erant *bene, male, facile, &c.* Ideo Particularum numerum (quarum tot primo utebar, propter majus scribendi compendium) ex Analyſi Logica indies minuebam.

Tandem vero mihi affulſit clarius lux; accuratius enim examinando omnium Notionum Analyſin Logicam, pereipi nullam esse Particulam quæ non derivetur a Nominе aliquo Prædicamentali, et omnes Particulas esse vere Casus, seu Modos Notionum Nominalium. Jamque inter hæc duo hærebam, an ſcriptionis compendium negligenter; an vero admitterem pro primitivis, quæ revera et Logice talia non erant; quod contra principalem hujus Artis ſcopum omnino erat. Quamobrem cum hæc duo conciliare nequibam, concluſi Logicam institutionem Nominum Rerum, utilitati Brachygraphicæ longe anteponendam; sive omnes Particulas ex ordine Radicalium miffas feci. Cumque jam refūcio quot et quam varias Methodos et modos in hac Arte pertransfiverim, quorum omnia longum effet recensere, experientia propria testatur, verum effe quod vulgo dicitur, Nihil ſimil natum et perfectum, et prima Artium linea menta effe admodum rindia.

Tenendum me *sex* particulas Pronominales retinuisse, non necessitatis sed compendii caufa, quia aliter sine longa periphrasi communicare non possumus; ponuntur enim hæ loco Nominum, ideoque Pronomina recte appellantur. Quod non fint absolute necessaria et primitiva, patet, quod quævis propositio illis constans refolvi potest per Nomina ipsa pro quibus hæc ſupponuntur. Sie *ego* ſcribo; id eft, *Georgius Dalgarno* ſcribit: dum Petrum alloquor; *tu* ſcripſisti; id eft, *Petrus* ſcripſit; dum Petrum alloquor de tertio aliquo, Johanne; *ille* ſcripſit; id eft, *Johannes* ſcripſit.

Hic bene observandum est, præcipuum quod reddit Linguas vulgares difficileis, est maxima ambiguitas particularum, ut videre licet apud Autores qui hoc subiectum tractarunt in variis Linguis: non enim sufficit ut aliquis Linguas vulgares intelligat, ut significationem omnium vocabulorum principalium separatim intelligat; Particulae enim tam multiplices et incertæ sunt significationis, ut nequeant Regulæ certæ dari ad earum significationem determinandam, sed hoc ex solo uso et longa experientia est collendum.

Judicia virorum doctorum varie expertus sum de modo instituendi voces ad *particularum* Notiones significandas: Quibusdam magis placebat modus ille prior, quo certum numerum Particularum pro Primitivis constituebam, a Notionibus Nominum in Tabulis positis distinctas. Ratio eorum erat; Primo, quod cum Particulae sint notiones frequentis usus, voces iis significandis impositæ debent esse quantum fieri potest compendiosæ. Secundo videbatur illis in quibusdam Particulis quæ complexæ sunt significationis, ut vox longior, sic etiam obscurior: ut in vocibus, *sunsum* vel *sunshun*, unusquisque; *syfshun*, vel *shousuf*, fere. Haec enim voces sunt dissyllabæ, nec tamen totum sensum harum Notionum perfecte et plene exprimunt. Alii contra mecum hic sentiebant, quod cum notiones omnes Particularum sint ex natura Rei ipsius derivativæ a notionibus radicalibus Nominum (quod contra opinantes negare nequivant) ideo consentaneum esse, ut ab iis formentur, et omnino absurdum esse in Lingua Philosophica, admittere aliquam Notionem quæ non originaliter sit Nomen (vel saltem pro Nomine positum) et capax omnium flexionum Grammaticalium; quarum haec est una, vocis scil. Radicalis mutilatio, qua denotatur vocem talem non significare partem aliquam materialem propositionis, sed formalem; id est, varios modos quibus intellectus notiones jungit in textura orationis, et varias rerum circumstantias situs, positionis, temporis, loci, &c. Quare haec præcipue derivantur a notionibus transcendentalibus et communioribus, et accidentibus sub Genere Accidentis Mathematici contentis. Præterea difficile est admodum determinare significationem harum vocum sine ambiguitate aliter: Imo omnino determinari nequeunt nisi ex notionibus Nominalibus ad quas dicunt essentiali respectum; quare æquissimum est sicut quoad *Rem* derivantur ab illis, sic etiam quoad *Signum*. Nec

minori cum ratione derivantur, *et, ab, ad, per, sine, &c.* a radicalibus notionibus a quibus earum significatio determinatur, quam *beue, male, doete, &c.* a suis Primitivis.

Ad illud autem quod objicitur, voces esse longas nimis; Resp. Satis sunt breves quae pro particulis primitivis supponuntur; secundum Regulam hujus Artis, *Vox Tabulae Accidentis in oratione posita sine aliqua terminali litera addita est Particula.* Quod autem quedam particulae sint propter compositionem longiores; quid hoc refert, quod aliquando sint dissyllabæ, tri-syllabæ, quadrifyllabæ, modo satis distinguantur ab aliis vocibus? Sunt enim quedam Particulae valde complexæ significationis, et cum capacitas Compositionis sit maxima excellentia in hæc Lingua, absurdum omnino esset denegare Compositionem vocibus significantibus Notiones maxime complexæ naturæ; quales sunt quedam Particulae. Videmus enim in omnibus Linguis, Logicam Naturalem hoc dictasse hominibus, Complexis Notionibus Particularum significandis, voces complexas imposuisse: ut quandoquidem, nihilominus, unusquisque; Anglice, *nevertheles, whensoever, &c.* Quare hæc abbreviatura vocum ad Brachygraphiam pertinet, nec est ejus consideratio admittenda in Lingua Philosophica, nisi secundario. Ad illud iterum, quod hæc voces aliquando non satis explicite dicant totam Notionem et conceptum Mensis; Resp. Fateor, aliquando sic est; non est enim expediens ad compendium et facilitatem communicationis, ut Notiones omnes nostras Simplices per rigorosam Analysin Logicam longa periphrasi semper explicemus. Sic vox *unusquisque*, significat distincte omnes distributive cum respectu ad singulas partes unatim; nimis autem esset laboriosum omnia hæc exprimere, in omni oratione ubi vox *unusquisque* occurrit: Quare vocem ex radicalibus *totius et partis*, vel *totius et unius* componimus, et supponimus pro hac complexa Notione, quod multo magis est rationabile quam vocem ex simplici instituto supponere. Concludo igitur, sicut Notiones Particularum derivantur a Notionibus Predicentalibus, sic etiam debent earum voces: Quod autem sic deriventur, abunde patet ex ulteriore earum resolutione. Unico exemplo instabo, de Particulis *tam et quam*. Hæc penna est *tam longa quam illa*; id est, hæc duæ pennæ comparatae sunt *æqualis* longitudinis, vel *æque* longæ. Hæc penna est longior, vel magis longa quam illa; id est, Hæc pennæ comparatae, hæc est longior, seu *magis* longa.

Ex his censio abunde satisfactum esse iis qui resolutionem Logicam orationis perficere possunt, omnem Particulam derivandam esse a Notione Prædicamentali, et propterea facile erit illis, intelligere et recordari voces in sequentibus Tabulis, Particularum significativas: Rudiores vero quod attinet, voces Particularum ex Tabulis addiscant, tanquam essent ex mero instituto; idem enim signum potest esse respectu unius Rationale, respectu alterius qui rationem institutionis non apprehendit, simpliciter, arbitrarium.

Particularum Doctrinam absolvam, resolvendo quasdam Particulas et Constructiones difficiliores.

Totum Corpus, caput, terra, &c. absurdus, pro, *totum seu totitas, corporis, capitinis, terræ, &c.* Non enim dicimus, *partiale corpus, caput, &c.* sed, *pars corporis, capitinis, terræ;* et eadem est constructionis ratio utroque; vel si alterum horum verborum reddendum esset *Adjective* (nam supra docui Genitivam et Adjectivam Flexionem esse eandem) non *totum* et *pars*, sed *corpus, caput, terra, adiective flectenda* essent. Male sonarent hujusmodi phrases Latine, melius Angliee; *The bodies whole, the heads parts, &c.* Quare in hoc sensu collectivo, notio (*totum*) Substantive et abstracte est accepta; in sensu vero distributivo, haec notiones sunt reddendae adiective, *unus una, omnes homines;* vel per adjectivum *personæ;* sic, *sunalli, omnes homines; sunirri, omnes res.* De particula *unusquisque* haec tenus. *Aliquis, nonnullus, particularis,* sunt adiectiva *partis* vel *unius.* *Ullus,* est adiectivum *entis.* Voces haec, *quicunque, ubicunque, quandocunque, &c.* significant rem, personam, tempus, vel locum, &c. cum quadam Emphasi, quæ Latine exprimitur per terminationem *cunque;* quæ bene significari potest, per geminationem Particulæ relativæ *lul* his præfixæ; *lullulan, lullulad, lullulil, lullulir, &c.* Quo pacto etiam fit nonunquam Latine; *quotquot, quisquis, quoquooversum, &c.* Particula *in* est admodum ambiguæ significationis; numerant Logici octo modos ineffendi (ut loquuntur) quibus nonum bene annumerare potuissent; ni. res *in tempore.* Verum unicus tantummodo est horum modorum, qui proprie dici potest modus ineffendi: id est, res *in loco;* ut Petrus *in domo, vinum in poculo.* Proprie igitur dici potest lutum subiectum *inhesionis,* cum quis *in eo* immergitur: improprie vero Anima respectu gratiæ, vel paries respectu albedinis, subiecta *inhesionis* dienntur: proprie tamen fatis dicitur sanguis *in teste.* Cæteræ phrases ut plurimum resolvuntur per

Genitivum easum; sic, *totum* et *pars* inter se comparata, *partes* sunt *totius partes*; non *in toto*. Nos sumus *in tempore*; id est, nos *temporamus* (si quis poterit notionem apprehendere ex hac barbara voce). Rex est *in Regno*; id est, habet, possidet Regnum, regnat. Longam orationem postularer omnem particularum ambiguitatem discutere; sed cum hoc noverint docti ad quos jam feribo fine me praevante praestare, cumque etiam satis determinatae sint ex Tabulis, ideo hic amplius non expatiar.

Tenendum sub Nominis particularum contineri, Notiones vulgo a Grammaticis, Conjunctiones, Praepositiones, et Interjectiones appellatas, quae posteriores formantur ab Animi passionibus, ut, *pom*, nota Admiratiois, *puf*, ecce, *prob*, hei, vah, &c. Adverbiorum vero Flexio, est easus ab his distinctus, modum actionis significans; ut *pomesai*, admiranter, *ponesai*, amanter, &c.

Notandum etiam in Tabulis Accidentium, licet posuerim Notiones primivas, vocibus Latinis expressas, aliquando Verbaliter, aliquando Nominaliter, idque nonunquam in sensu Adjectivo, nonunquam Substantivo concreto, nonunquam abstracto; tamen notio Radicalis et prima, eonecipienda est in sensu Abstracto, quod Lingua Latina (in hoc vere Barbara) sine Barbarismo exprimere non sinebat. Sic, haec Notiones, *Dominus*, *Servus*, *Rex*, non sunt exprimenda per solas voces Radieales, sed voci Radicali addenda est terminatio *el*: *e* enim est significativa Adjectivi agentis; *l* vero personæ; *fie*, *Kamel*, *Kramel*, *Kanel*.

Notandum ultra, *r* in principio dictions est Charactericton voeis numeri significativæ: Hoc sit ne fiat confusio inter voces Numericas, et voces aliarum notionum significativas hujus Linguae. Præterea voces Numerorum Ordinalium formantur a vocibus Cardinalibus, adsciscendo literam servilem *s*, et a Flexionis Adjectivæ significativam; *fie, rasa, r̄sa, r̄sa, &c.* *primus*, *secundus*, *tertius*.

Ultimum quod hoc loeo addam erit de Mensuris. Mensuræ, eum non minus sint et arbitrarie, et variæ apud varios Populos, quam sunt voces Linguarum, ideo æquum judice in hæ Lingua Philosophica, ut rejectis omnibus vulgaribus Mensuris, non minus quam Vocibus, novæ Mensurae prius formentur quam iis significandis Nomina instituantur. Verum quidem est, cum nulla detur determinata quantitas a Natura quæ sit primum Prin-

cipium et Regula mensurandi, arbitrium neecessario est admittendum in mensuris constitutis, non minus quam in primitivis vocibus institutis: Verum si unum primum principium ex Arbitrio admittatur in unoquoque genere Mensuræ, hoc erit Regula Mensurandi quamlibet quantitatem; nec necessarium erit, dato femele hoc primo principio Mensuræ, instituere diversas et distinctas voces ad significandos distinctos gradus Mensuræ in eodem Genere; sed omnes aliae Mensuræ exprimenda effent per divisionem vel multiplicationem primæ Mensuræ. Sie, supposito quod in genere Ponderis, *ounce* effet primum principium Mensuræ; Mensura vulgo *pound*, effet exprimenda 16 *ounces*. Nolo hie in me suscipere, quod sit istud principium mensurandi in singulis generibus Mensurarum determinare; sed rem hanc (cum aliis) virorum doctorum judicio, in hac Materia me magis verfatorum subjicio; opinionem tamen meam hic sic offero: Minima Mensura quæ a viris doctis usum obtinuit in mensurando debet primum principium mensurandi constitui.

Aliam præterea rationem determinandi Mensuras, et sic Nomina illis imponendi in hac Lingua cogitavi, viz. Cum (ut dictum) omnis determinatio Mensuræ sit res omnino arbitraria, et Mensuræ apud varias Gentes variae sint, ideo Regulam mensurandi constitutere Mensuras apud nos Britannos in usu: Si enim Arbitrium neecessario fit admittendum, consentaneum videtur, ut nostrum Arbitrium hie præferatur; ut seiant aliae Nationes unde haec Ars primam originem duxerit. Verum cum nostra Mensura, non minus quam aliorum populorum sint sine ratione institutæ; id est, variae denominations Mensurarum in eodem Genere Mensuræ, non distinguantur et excedant se invicem, secundum regularem et eandem quantitatis proportionem, e. g. 4 *farthings* (quæ est minima Mensura in Genere Pecuniae) faciunt unum *pennie*, 12 *pennies* faciunt unum *shilling*; 5 *shillings*, unum *crown*, 4 *crowns*, unum *pound* (eadem est irregularitas proportionis in aliis Mensuris) omnino contra scopum Linguae Philosophieæ fuisset, his Mensuris sic determinatis Nomina impofuisse. Deinde non est supponendum, licet haec Lingua ita invaleret, ut usum omnium aliarum Linguarum exterminaret, quod valde est improbabile (licet enim mihi admodum probabile videatur eam ita invaliditatem in posteris fœculis, ut omnes Gentes cultæ et Literatae ea usuri fuerint, quomodo nos Europæi utimur Lingua Latina; non est tamen pro-

babile, eam usum omnium vulgarium Linguarum penitus aboleturam) quod propterea omnes Nationes, Antiquas et usitatas Mensuras simul cum Linguis rejicerent.

Quare tertio, omnibus his consideratis, concludo; nisi hunc arbitrarium morem mensurandi mutare possemus in Philosophicum, frustra esset Nomina Philosophica his Notionibus non Philosophicis instituere: Quapropter dum Gentes omnes consenserint mutare hunc mensurandi modum, retinent eum Arbitrariis Mensuris etiam earum Arbitraria Nomina: Cum igitur fermo habetur in hac lingua de Mensuris alicujus Nationis, exprimantur per Nomina ab ipsis usitata, tanquam essent propria Nomina virorum vel Locorum.

Tenendum tamen est; bene institui posse Mensuras Temporis (adeoque etiam in hac Lingua, Nomina iis significandis) ad distingnendos divergos gradus vitae in rebus Animatis: Ratio est, quia hic datur fundamentum in re ipsa; et ideo in omnibus fere Linguis vulgaribus, certi quidam gradus temporis vitae, distinctis Nominibus insigniti inveniuntur: ut in homine, infantia, pueritia, adolescentia, juventus, status adultus, senectus. Quidam etiam distincti gradus notantur in plantis et brutis.

Quamobrem in homine Creaturarum viventium perfectissima, admitto quinque distinctos gradus temporis vitae; quos distinguo per voces numericas voci speciei significativa additis. Sic, 1. Infantia. 2. Pueritia. 3. Adolescentia. 4. Status adultus. 5. Senectus: *uera, ueru, uvve, uvvo, uvvu*. Sic, proportione servata, distinguui possunt 5 aetates plantarum: Prima, dum ex femine surgit (in Arboribus vocant Angli *kitkey*). Secunda Aetas est surculus tener. Tertia, Sureulus procerior factus. Quarta, Planta adulta. Quinta, Vanescens et marcescens. Idem dicendum de Brutis, in quorum Nominibus (principue Brutorum nobis maxime familiarium) etiam quædam vestigia hujus distinctionis in Linguis vulgaribus inveniuntur; sic Angli dicunt, *foal, colt, calf, heifer*, &c. quæ voces distinguunt duos primos gradus vitae in his animalibus. Ratio autem quod hic admittam Numeros, ad harum Notionum differentias distinguendas, est quod haec differentiae essentialiter pendeant a numero; in hoc enim solo eas admittendi sunt numeri ad rerum Differentias significandas. Ratio iterum quod Numeri ita sint inepti ad Rerum differentias distinguendas, est haec, quia aliarum omnium

Notionum quæ sub cognitione humana eadunt, Numeri sunt a sensibus maxime abstracti; ideoque anima humana (quæ dum corpori alligata Sensuum ministerio utitur) dum notionum pure Numericarum recordatur, cogitur Numeros applicare ad res sensibiles: Ita ut vere diei possit, omnem Intellectus operationem ultimo resolvit in numeros, et hos si non necessario semper (quod non audeo positive assertere) faltem saepissime, primo rebus sensibilibus applicari.

Admitto etiam sex gradus mensuræ temporis in genere, vocibus numericis distingui, ni. *minutum, hora, dies, septimana, mensis, annus;* sic, *danya, dauer, daure, &c.* dici etiam potest, *danci septimana, daniar mensis, daniel annus.*

Hic ultimo teneatur de gradibus consanguinitatis et affinitatis; modus maxime proprius et Philosophicus exprimendi has relationes (quia scilicet maxime secundum ipsum Rei naturam) est per voces desumptas a notionibus Primis et Radicalibus, in quibus haec Relationes fundantur. Sic, pater *pagel*, id est, persona gignens; mater *patel* vel *pratel*, id est, persona concepiens, vel pariens; avus, *pater secundus*; proavus, *tertius pater*; atavus, *quartus pater*, &c. Adeoque hoc sensu, Adam erit noster ultimus seu postremus pater. Sic filius *pagol*, id est, persona genita; nepos, *secundus filius*; pronepos, *tertius filius*, &c. Sic fratres, sunt *cognati primi* (nam teneatur, stet significare consanguinitatis relationem collateralem, non eam quæ est in linea recta) *cognati secundi*, qui habent eundem avum; *cognati tertii*, qui habent eundem proavum, &c. Avunculus, id est, *frater patris*; materterta, id est, *soror matris*, &c. idem intelligatur de gradibus affinitatis, id est, periphrastice exprimendi sunt *mariti pater, mariti frater, &c.*

Sequitur reducacio præcipuarum vocum Linguæ Latinæ, ad Notiones Radicales hujus Linguae Philosophicæ.

Et hic tenendum: Cum hic mihi tantummodo propositum sit principia et fundamenta hujus Artis ita proponere, ut a viris doctis apprehendantur; ideo 1. Voces in Tabulis positis brevitatis causa hic non repetivi. 2. Nec omnes voces Latinas hic posui; maxima enim pars vocum quæ reperiuntur in Lexicis, vel sunt Derivativæ et Compositæ, ut, *bonus, bene, bonitas, beneficio, &c.*, vel tales sunt voces, quibus in aliis Linguis nullæ voces simplices respondent, sed periphrastice exprimuntur; quales sunt quam-

plurima Nomina *vestium*, *vasium*, *ciborum*, &c. quarum explicationem, per voces hujus Linguae hic intendisse prolixum nimis fuisset, præterea etiam superfluum, cum viri docti satis sciant has voces resolvere per ea quæ hic tradita sunt: Autius autem Lexicon in gratiam vulgi postea parabitur. 3. Nemo doctus expectabit me per voces hujus Linguae redditurum eundem plane valorem omnium vocum aliarum Linguarum sine periphrasi; hoc enim est impossibile, quia esset labor infinitus. 4. In explicandis vocibus Latinis hic positis non usus sum longa periphrasi verborum, nec omnes earum varias acceptiones enumeravi, sed breviter tantum expressi præcipuas Radicales voces hujus Linguae per quas explicandæ sunt: posse sunt etiam quædam Notiones quas ego per voces compostas expressi, aliquando pro re nata, aptius periphrastice et divisiim exprimi, et e contra; vocum tamen Compositioni, compendii et Emphasis causa, omnibus modis studendum est; et ad hoc faciendum cuique sua libertas linquitur, modo ratio Compositionis sit clara et evidens; in hoc enim summum Philosophiae acumen apparebit, multiplicare per Compositionem et Derivationem signorum compendia Emphatica ex paucis Primitivis fine obscuritate.

LEXICON LATINO-PHILOSOPHICUM.

A BACUS, <i>fran.</i>	A cies, <i>bzbu.</i>
Abbas, <i>kaf.</i>	A cquiescere, <i>dram tɔp.</i>
Abdicare, <i>sofkafesv</i> , <i>trɔd sofslem.</i>	A cquirere, <i>stis sprm.</i>
Abdere, <i>dit.</i>	A culeus, <i>sablik.</i>
Abire, <i>bempzd.</i>	A cumen, <i>bzbu primu.</i>
Abhinc, <i>shvb lol dan</i> , <i>bem lol dad.</i>	A dditamentum, <i>shunu drose</i> , <i>tmo.</i>
Abhorrere, <i>prebesv s̄mpron</i> , <i>trof.</i>	A deo, <i>s̄m lolsns ses.</i>
Abjurare, <i>scabe trimesv.</i>	A djuro, <i>skab.</i>
Ablactatio, <i>soff̄s</i> , <i>sofirn.</i>	A dipisci, <i>s̄pm sprnb srg stis.</i>
Abolere, <i>sofshanesv</i> , <i>grvpesv</i> , <i>sofiavresv.</i>	A dministratio, <i>kas</i> , <i>kram.</i>
Abominari, <i>s̄mpronessv.</i>	A dmittere, <i>slaf pr̄desv tuf</i>
Aboriri, <i>pratesv svb danu.</i>	A dmodum, <i>s̄m.</i>
Abripere, <i>dos don bemedep shekai.</i>	A dnihilare, <i>sofiavresv.</i>
Abrogare, <i>sofiavresv</i> , <i>sofkebesv.</i>	A dolere, <i>n̄mesv skagu gub.</i>
Abrumpere, <i>domesv donesv.</i>	A dolescens, <i>uv daba uvre.</i>
Absolvere, <i>kon shon sis.</i>	A doptare <i>tv̄desv s̄nt pagol.</i>
Abstemius, <i>sofprefemp.</i>	A adoriri, <i>kum.</i>
Abstinere, <i>tr̄s preb tim sodesv.</i>	A odorare, <i>skaf tud str̄f.</i>
Absurditas, <i>shib prem softos.</i>	A desse, <i>dap.</i>
Abundantia, <i>s̄mu slvdu.</i>	A dvena, <i>stred.</i>
Abusus, <i>shig.</i>	A dversus, <i>shom.</i>
Abyssus, <i>dadbaſ.</i>	A adulterium, <i>kvf.</i>
Academia, <i>dadtem fantem dadtis.</i>	Æ des, <i>fan.</i>
Accendere, <i>n̄mesv semesv n̄m.</i>	Æ ger, <i>grug.</i>
Accidere, <i>sakesv pñk ded.</i>	Æ mulari, <i>pot.</i>
Accingere, <i>drod sitresv.</i>	Æ nigma, <i>tidu trifō</i> , <i>shepa.</i>
Accipere, <i>sprnb.</i>	Æ qualitas, <i>slvn</i> , <i>stlm.</i>
Accivitas, <i>bl̄mu.</i>	Æ quanimitas, <i>pib pod.</i>
Accolere, <i>stid shvmbem.</i>	Æ quilibrium, <i>slvn</i> , <i>dzm.</i>
Accommodare, <i>stop sitresv.</i>	Æ quitas, <i>kef sid grat.</i>
Acervus, <i>drotor</i> , —— <i>ind ut nyfind.</i>	Æ quinoctium, <i>slvn dangom dangrom.</i>
Acetum, <i>fñm vel flem gr̄be.</i>	Æ quipollentia, <i>sefu slvna.</i>

Æquivocus, <i>tose shumir</i> .	Allevare, <i>dr̄mres̄ pobres̄.</i>
Ærugo, <i>grpu s̄f nef gob.</i>	Allicere, <i>tum spak.</i>
Ærumna, <i>prob pred.</i>	Allidere, <i>shomdenes̄.</i>
Ærarium, <i>fanfum.</i>	Allucinari, <i>tren.</i>
Æstas, <i>dangam.</i>	Alludere <i>son spam p̄p.</i>
Æstus, <i>gamu shvna, damu shvna s̄f is.</i>	Almus, <i>gum pok.</i>
Ætas, <i>dansr̄p.</i>	Alera, <i>gum.</i>
Æther, <i>nam, n̄m.</i>	Alphabetum, <i>tommu s̄ma.</i>
Ævum, <i>daniel vali.</i>	Altare, <i>fran skaga.</i>
Affectns, <i>peb, pis, pos.</i>	Alter, <i>slomr̄.</i>
Afferre, <i>bremdep.</i>	Altercari, <i>spap.</i>
Affinitas, <i>streb sted.</i>	Alternare, <i>s̄t shzd.</i>
Affligere, <i>kofship prob k̄m.</i>	Altitudo, <i>bafu.</i>
Ager, <i>nom wba, flan̄.</i>	Alvearium, <i>dadu s̄f snap nengn̄m.</i>
Agger, <i>r̄p nomind.</i>	Alveus, <i>ab s̄f ris.</i>
Agredi, <i>sem kum.</i>	Alvus, <i>fos.</i>
Agrestis, <i>stran.</i>	Amanuensis, <i>trin.</i>
Agilitas, <i>spr̄t, dam, sod.</i>	Ambages, <i>trommi speake sliba.</i>
Agmen, <i>shum — ind.</i>	Ambiguitas, <i>slib tose shumir.</i>
Agricola, <i>nomsp̄pel.</i>	Ambitio, <i>trubpebst̄f.</i>
Agnatio, <i>steb.</i>	Ambitus, <i>eb beg.</i>
Agnomen, <i>ton s̄ba.</i>	Ambo, <i>v̄n, tol t̄m lel.</i>
Agnus, <i>nekpinva.</i>	Ambulare, <i>p̄nb.</i>
Ah, <i>prob.</i>	Ambulacrum, <i>dadp̄b.</i>
Ahenum, <i>fren nefyoba.</i>	Amentia, <i>grugrin.</i>
Alabrum, <i>sabframdef.</i>	Amita, <i>stebpragra s̄f pagel.</i>
Alacer, <i>pob prim.</i>	Annis, <i>ris.</i>
Alapa, <i>digu s̄f sm̄s.</i>	Amœnitas, <i>ped pob.</i>
Albugo, <i>shnuu gofa s̄t m̄s s̄f snur.</i>	Amphitheatrum, <i>fran spafa, fada, feda</i>
Alchymia, <i>temu s̄f gakreu s̄f nef.</i>	Amplecti, <i>beg smv.</i>
Alea, <i>mib spafa.</i>	Amplus, <i>s̄vm beisam ban.</i>
Alias, <i>danslom.</i>	Amussis, <i>sabb̄f.</i>
Alibi, <i>dadslom.</i>	Anathema, <i>truf.</i>
Alienare, <i>gyg shzd strof.</i>	Anatome, <i>temdoniov.</i>
Alimentum, <i>sangum.</i>	Anfractus, <i>br̄f.</i>
Aliquando, <i>shundan.</i>	Angere, <i>pred prob.</i>
Aliter, <i>slomes.</i>	Angina, <i>grugnir.</i>
Alius, <i>slom.</i>	Anhelare, <i>grugsheppam.</i>

Animadvertere, <i>puf, pem.</i>	A rare, <i>flan.</i>
Animal, <i>ov səpe.</i>	Armilla, <i>fr̄omsmn̄.</i>
Animus, <i>eiv tam.</i>	Aroma, <i>neibdeig gema.</i>
Annulus, <i>fr̄omsmus mab.</i>	Arra, <i>shunu s̄f st̄du.</i>
Annus, <i>danial danu.</i>	Arrestare, <i>kod.</i>
Anusa, <i>sunu dñv d̄v.</i>	Arridere, <i>spam ped.</i>
Annales, <i>sefdan.</i>	Arrogantia, <i>tr̄bsodpop prig.</i>
Anteferre, <i>svbpop befdat.</i>	Articulus, <i>smeis drod.</i>
Anticipatio, <i>sub bef sodes̄ sames̄.</i>	Arx, <i>fan kusa.</i>
Antipathia, <i>shom.</i>	Ascendere, <i>dam p̄b p̄d b̄s ben.</i>
Antipodes <i>shomsmv̄.</i>	Aspicere, <i>m̄s.</i>
Antiquitas, <i>drab.</i>	Aspirare, <i>pam, d̄f spm̄.</i>
Antistes, <i>st̄f.</i>	Assiduitas, <i>pip stem.</i>
Anus, <i>dobu s̄f f̄s.</i>	Assuescere, <i>set.</i>
Auxietas, <i>pred, prob pum.</i>	Astrologia, <i>temias.</i>
Apex, <i>rab</i>	Asylum, <i>dad s̄b.</i>
Apoplexia, <i>grugsofpies grugdod.</i>	Atomus, <i>mam.</i>
Apostata, <i>sofsem.</i>	Atrium, <i>rebak.</i>
Apostema, <i>grugbrap.</i>	Atrox, <i>pit pin.</i>
Apostolns, <i>kad.</i>	Avaritia, <i>tr̄d pok.</i>
Apparere, <i>mr̄fos̄, pem pef.</i>	Author, <i>sas sam sem.</i>
Appellare, <i>ton.</i>	Audacia, <i>pnt pot.</i>
Appendix, <i>shunu t̄no droso.</i>	Audire, <i>m̄r.</i>
Applicare, <i>dit dad.</i>	Auferre, <i>bemdep.</i>
Approbare, <i>tad t̄f.</i>	Augere, <i>son.</i>
Aptitudo, <i>sit sos.</i>	Aurichalcum, <i>uefyod.</i>
Arbiter, <i>k̄mel t̄do.</i>	Aurora, <i>semu s̄f dangam.</i>
Arcanum, <i>dit sof pem.</i>	Aurum, <i>nefimap.</i>
Arcere, <i>krum shaf dr̄g.</i>	Austeritas, <i>gr̄n prid pin.</i>
Arduus, <i>shep baf sh̄b.</i>	Aut, <i>tr̄f.</i>
Arena, <i>wfمامind.</i>	Automatus, <i>sabdan dame l̄l.</i>
Argentum, <i>nef v̄sa.</i>	Autumnus, <i>daurag.</i>
Argilla, <i>naygap.</i>	Avunculus, <i>stebel vas̄ s̄f patet.</i>
Argumentum, <i>sas, sog.</i>	
Arguere, <i>tap trnb kib.</i>	BACCA, <i>ragnog.</i>
Arista, <i>v̄g.</i>	Balbus, <i>grugshaftin.</i>
Arithmetica, <i>temtr̄g.</i>	Balneum, <i>dadnimsif.</i>
Armentum, — <i>ind neikflanind.</i>	Baptismus, <i>nimsif skapn̄im.</i>

Barba, <i>amuir.</i>	Callere, <i>gab prim.</i>
Barbarus, <i>pit softos.</i>	Calva, <i>mas.</i>
Barritus, <i>panu srf n̄ksyf.</i>	Calvities, <i>grugsofiam.</i>
Basium, <i>neis.</i>	Calumnia, <i>kihu shiba.</i>
Batillum, <i>frennum.</i>	Campus, <i>lor.</i>
Beatitudo, <i>skan saku sima.</i>	Canistrum, <i>fron.</i>
Benignitas, <i>pokpon.</i>	Canities, <i>am gof.</i>
Biblia, <i>sefsasva.</i>	Captivitas, <i>kug.</i>
Bilis, <i>ηm.</i>	Canon, <i>keb tok.</i>
Bilaux, <i>sabtngdym.</i>	Capere, <i>d̄f.</i>
Bitumen, <i>nafyap.</i>	Capistrum, <i>sabmeisdrod.</i>
Blæsitas, <i>grugshaftin.</i>	Capsa, <i>fem fron frn.</i>
Blanditiæ, <i>pwp.</i>	Carbo, <i>san sofñm uafñm.</i>
Blasphemia, <i>truf sasva.</i>	Carcer, <i>dadkog.</i>
Botrus, <i>ragsnug.</i>	Cardo, <i>ib.</i>
Braceæ, <i>sm̄rfreim.</i>	Caries, <i>grp.</i>
Bractea, <i>mem.</i>	Carina, <i>ab srf frn.</i>
Braxare, <i>godesv fl̄m.</i>	Carminare, <i>drop sud.</i>
Bucca, <i>nos.</i>	Carpentum, <i>flin.</i>
Bullbus, <i>m̄b.</i>	Carnefex, <i>kassh̄prel.</i>
Bulla, <i>m̄b srf nim.</i>	Carpere, <i>drid drot.</i>
CACARE, <i>em dragresv fus.</i>	Cartilago, <i>raf.</i>
Cadaver, <i>ov sh̄pa.</i>	Carus, <i>st̄d som.</i>
Cæcitas, <i>sofn̄s.</i>	Casa, <i>fau str̄b.</i>
Cædere, <i>sh̄presv.</i>	Caseus, <i>flom.</i>
Cælare, <i>temdom trin.</i>	Castellum, <i>fankus.</i>
Cælebs, <i>trim stef.</i>	Castigare, <i>kof.</i>
Cæremonia, <i>stam.</i>	Castrare, <i>sofsner.</i>
Cæsius, <i>gop.</i>	Castus, <i>tbpap.</i>
Cæspes, <i>shunu f̄f memu srf nom.</i>	Casus, <i>sak s̄s tron.</i>
Cæspitare, <i>shaf suvs grugpr̄s.</i>	Catalogus, <i>fefton.</i>
Calamitas, <i>skran prob.</i>	Catena, <i>sabdrod fr̄m.</i>
Calamus, <i>fam l̄d.</i>	Catulus, <i>nik pōva nik primva, &c.</i>
Calcar, <i>sablik.</i>	Caudex, <i>l̄d.</i>
Calceus, <i>freinsuor.</i>	Cautus, <i>tef prim pud.</i>
Calculns, <i>grugnrf sabtngshum.</i>	Caulis, <i>l̄d.</i>
Caliga, <i>freimsmer.</i>	Caverna, <i>ol.</i>
Celebritas, <i>st̄f st̄n tip.</i>	

Celeritas, <i>d̄n</i> .	Colare, <i>freimmeir</i> .
Cella, <i>fan</i> .	Colon, <i>top</i> .
Celare, <i>dit</i> .	Colus, <i>sabfram</i> .
Centrum, <i>mam brepa</i> .	Comis, <i>prinstan</i> .
Cera, <i>nenn̄m</i> .	Comma, <i>top</i> .
Certare, <i>spap kub sp̄g</i> .	Commercium, <i>stes stos</i> .
Certitudo, <i>sib</i> .	Communicare, <i>pemrefu tosresv</i> .
Cervisia, <i>fl̄m n̄pa</i> .	Compendium, <i>bram</i> .
Cessare, <i>sofsod sofslem</i> .	Compositio, <i>sh̄n</i> .
Chaos, <i>ov sofshana shud</i> .	Computatio, <i>tr̄gesv shum t̄n</i> .
Character, <i>tom dip</i> .	Conatus, <i>d̄f</i> .
Chirotheca, <i>freimsm̄s</i> .	Concedere, <i>tad</i> .
Chronica, <i>feſdan</i> .	Conscio, <i>trodu st̄na, skasa</i> .
Cicatrix, <i>dipu s̄f domu f̄f ef</i> .	Conculcare, <i>brensm̄resv</i> .
Cieur, <i>prim</i> .	Conclusio, <i>tr̄m sh̄m tr̄t</i> .
Cingere, <i>beg drod</i> .	Condire, <i>ḡsresv</i> .
Circa, <i>beg</i> .	Conditio, <i>s̄s t̄m</i> .
Circumferentia, <i>eb</i> .	Condonare, <i>st̄p</i> .
Circa, <i>loliqb</i> .	Conducere, <i>strob sig</i> .
Cisterna, <i>frennim</i> .	Condylus, <i>smeis</i> .
Civitas, <i>fanind</i> .	Consideratio, <i>tat</i> .
Cithara, <i>f̄b</i> .	Consumere, <i>gr̄p sofshan</i> .
Clam, <i>sofpem</i> .	Contra, <i>shom</i> .
Clamare, <i>svpan</i> .	Convenire, <i>dim sprap sos</i> .
Claritas, <i>gon gid</i> .	Conversatio, <i>stes sod</i> .
Classis, <i>f̄nind sud</i> .	Convivium, <i>fleim shek slbpafu</i> .
Claudus, <i>sofsm̄r grugpn̄b</i> .	Copia, <i>svm</i> .
Clavus, <i>nt̄ fin</i> .	Coquere, <i>ḡd</i> .
Clavis, <i>sabdog</i> .	Corium, <i>rf</i> .
Clemeutia, <i>prit</i> .	Corona, <i>frummeis</i> .
Clivus, <i>bl̄n</i> .	Corrigere, <i>sensis sensham</i> .
Cloaca, <i>fam s̄f avvi shiffa</i> .	Corrugare, <i>dek</i> .
Clumis, <i>f̄s</i> .	Corrigia, <i>shundf s̄ffreimsm̄r, sabdig</i> .
Cochleare, <i>frenneis</i> .	Corrumper, <i>gr̄p, sofsham</i> .
Cæna, <i>steim, paf shemdangom</i> .	Cornscare, <i>gom</i> .
Cogitare, <i>tat</i> .	Cras, <i>danve dangom shob</i> .
Cogere, <i>shek sed</i> .	Creare, <i>samesv san sofavar</i> .
Collegiuun, <i>stes fanstes</i> .	Crepusculum, <i>glom</i> .

Creta, *nafgof*.
 Cribrum, *sabsinrer dobo*.
 Crimen, *kvs*.
 Cruditas, *grvd*.
 Crumena, *fromsum*.
 Crus, *smer*.
 Crusta, *memgab*.
 Crux, *sabshnpren brzna ship prob.*
 Cubare, *pzb brzm*.
 Cubile, *frun*.
 Cubiculum, *fanfrun*.
 Cudere, *dib dig*.
 Culina, *fanfeingvd*.
 Culmen, *rab*.
 Culpa, *prem kvs*.
 Culter, *sabdom*.
 Cumulus — *ind rvp*.
 Cunae, *frunnrva*.
 Cuneus, *sabdrob*.
 Cupio, *peb tvg*.
 Currere, *somprb*.
 Cuspis, *shundik bep*.
 Custodire, *shad*.

DEBILIS, *sofsef*. . .
 Decretum, *kom*.
 Decere, *sit seb shanu sima sin*.
 Decipere, *spak*.
 Decornu, *shann sima sin sudn sima sit*.
 Deens, *strf sin prag*.
 Dedecus, *sofstrs shin pag*.
 Dedicare, *spf tron*.
 Dediugari, *prop tagesv sofsat*.
 Defetisci, *spnt*.
 Deficere, *shvd shvg*.
 Degener, *sossln pagel*.
 Deinde, *shvsnd shvbdan*.
 Dejicere, *dedresv denesv bzs bren*.

Deinceps, *shvbdan*.
 Delere, *sofshan*.
 Demere, *dos trzn*.
 Democratia, *kanstrifu*.
 Demonstrare, *penresv sibresv*.
 Denique, *shvapai*.
 Deorsum, *bzs bren*.
 Depsere, *gomesv flam safyvdo*.
 Descendere, *pzb dam bzs bren*.
 Designare, *tonesv shug tron*.
 Desinere, *sofslem*.
 Desistere, *sofslem dram*.
 Desperatio, *sofpof*.
 Detimentum, *strg shvd*.
 Dextera, *smv beba*.
 Diabolus, *oir shima*.
 Diadema, *frvm meis sif kanel*.
 Dialogus, *srttinu slvtinu*.
 Dieta, *sespaf danpaf dantut*.
 Diameter, *ib*.
 Diarium, *fef danre*.
 Dico, *tin tim*.
 Dies danve dangom.
 Differre, *stom*.
 Dignitas, *strf strd sat*.
 Diluculum, *semgom glom*.
 Diluvium, *nimdit*.
 Dimidium, *shunu vnsa*.
 Dirigere, *damresv babai sud*.
 Disputare, *tap shom tap*.
 Diu, *smdan*.
 Divortium, *strvsu srf stefu*.
 Dolare, *gratresv*.
 Dolus, *spak shib*.
 Domare, *kut priuresv*.
 Dos, *fum stzb stefa*.
 Dubitare, *slib plem*.
 Durare, *danesv slem*.

Ebrietas, <i>trubpraf.</i>	Exorcismus, <i>kuk.</i>
Elbur, <i>nas sif n̄ksuf.</i>	Exoriri, <i>sem guf ben.</i>
Ecce, <i>puf pom.</i>	Explicatio, <i>tif.</i>
Ecclesia, <i>steskam.</i>	Expugnatio, <i>kut.</i>
Eestasis, <i>grug shrg spr.</i>	Exter, <i>bed stred.</i>
Esurire, <i>pebpaf.</i>	Extinguere, <i>shemesu n̄m sofsham shrp-resv.</i>
Egere, <i>shrg.</i>	Exilium, <i>kob.</i>
Egregius, <i>sin simap.</i>	Exnere, <i>soffreim sofdit.</i>
Electrum, <i>ad sif sneiggigema.</i>	FABER temel.
Eleemosyna, <i>stifprit.</i>	Fabula <i>tigshib.</i>
Elementum, <i>shan rasa neim gropomp.</i>	Facetiae pid.
Ellychnium, <i>f̄m m̄m bepa s̄ns f̄m.</i>	Facere sam.
Eloquentia, <i>teutin simtin.</i>	Facultas <i>sef tem.</i>
Embryo, <i>snus.</i>	Fæx <i>grp.</i>
Emungere, <i>sif.</i>	Falx, <i>sabdom braba.</i>
Ephippia, <i>frim n̄kpotata.</i>	Fames, <i>grugshvg fleim.</i>
Episcopus, <i>kaf.</i>	Farrago, <i>gom slund.</i>
Epistola, <i>trin.</i>	Farina, <i>mamind difo sif nob.</i>
Equitare, <i>n̄kpotdeposv.</i>	Fas, <i>kef keb.</i>
Eremus, <i>nom gruna sofstdio.</i>	Fascia, <i>sr̄ymdrod</i>
Erigere, <i>b̄mresu.</i>	Fascinare, <i>kuk.</i>
Esca, <i>fleim gumer.</i>	Fastidire, <i>preb prop.</i>
Evangelium, <i>tibszb.</i>	Fateri, <i>tuf kig.</i>
Eucharistia, <i>skappik skappaf.</i>	Fatigare, <i>sptz.</i>
Evenire, <i>shed.</i>	Fatum, <i>sak komor tronor sif sasva.</i>
Examinare, <i>tzb tid.</i>	Favere, <i>pon.</i>
Exsanguis, <i>sofien.</i>	Favus, <i>nengzmind</i>
Exanimare, <i>shypresv sofeirresv.</i>	Faux, <i>neir.</i>
Excellentia, <i>sis sim.</i>	Fax, <i>fr̄n.</i>
Exeommunieare, <i>sofsts.</i>	Febris, <i>gruggam.</i>
Exeuissio, <i>dos beddenesv.</i>	Ferax, <i>gun.</i>
Exendere, <i>trin dip dibtrin.</i>	Ferre, <i>dep.</i>
Exercere, <i>set sprp.</i>	Ferrum, <i>nefyab.</i>
Exercitus, <i>kragind.</i>	Festinare, <i>d̄n.</i>
Exhalatio, <i>nein.</i>	Festus, <i>skas.</i>
Exilis, <i>shv grad.</i>	Fibula, <i>sabdrod.</i>
Existere, <i>av.</i>	
Exlex, <i>kvb shrg keb.</i>	

Fictio, <i>pug trum shib.</i>	Frustra <i>sofshem.</i>
Fidelis, <i>sib sid sofpug.</i>	Fuga, <i>pƿp.</i>
Fides, <i>tƿp.</i>	Fulcire, <i>dȝd.</i>
Fiducia, <i>tƿp sib.</i>	Fulgere, <i>gom sengom.</i>
Figere, <i>dómresu dramresu.</i>	Fulmen, <i>gisies.</i>
Figulus, <i>samel sýf frennū nomu.</i>	Funda, <i>sabden.</i>
Filius, <i>pagol.</i>	Fundamentum, <i>ab.</i>
Fimbria, <i>bep.</i>	Fundere, <i>gakresu bedgakresu.</i>
Firunus, <i>dram sofdam.</i>	Fundum, <i>ab.</i>
Fistula, <i>fam fab.</i>	Fungi, <i>kas.</i>
Flabellum, <i>sabdamnem.</i>	Funus, <i>stam nomdit shrpalli.</i>
Flagellum, <i>sabdig.</i>	Furca, <i>sabdkvñ</i>
Fligere, <i>dig prornresu ship.</i>	Furfur, <i>shunsir sýf mamind.</i>
Flare, <i>nemesu pam nmn.</i>	Furor, <i>sƿmpod.</i>
Fluere, <i>gak.</i>	Fustis, <i>sabdig neiga.</i>
Fluctus, <i>gaku sýf nim.</i>	Fusus, <i>sabframdef.</i>
Flumen, <i>ris.</i>	
Fodere, <i>bagresu nom.</i>	GALERUS, <i>freimmeis.</i>
Fossa, <i>dadbog ol.</i>	Garrire, <i>pan neip tin sumtin.</i>
Fædus, <i>stos.</i>	Gangræna, <i>gruggrup.</i>
Fænus, <i>støgfum.</i>	Gelu, <i>gramgvb.</i>
Fænum, <i>nab.</i>	Gemitus, <i>grugbredgis.</i>
Follis, <i>sabdanumem.</i>	Genealogia, <i>fefpagfefsteb.</i>
Forceps, <i>fmr.</i>	Gensis, <i>tob sng pad.</i>
Formosus, <i>sin.</i>	Generositas, <i>pot strf.</i>
Fornix, <i>rep.</i>	Generalis, <i>sug sun.</i>
Forte, <i>sak shed.</i>	Gens, <i>sten.</i>
Fortis, <i>sef drb.</i>	Germinare, <i>guf.</i>
Forum, <i>dadstof.</i>	Germanus, <i>sib.</i>
Foveo, <i>shad gum pum.</i>	Gigas, <i>uvim.</i>
Fomes, <i>shan sýf nzm.</i>	Genius, <i>tam.</i>
Fraenum, <i>sabdnmeis.</i>	Glaber, <i>sofiam.</i>
Frater, <i>steb vasa.</i>	Glacies, <i>nimgvb.</i>
Fremere, <i>søngis.</i>	Glaucus, <i>rag snzg mzb.</i>
Frendere, <i>nasdim.</i>	Glaucus, <i>gop.</i>
Frequens, <i>szt shum.</i>	Gleba, <i>shunnom.</i>
Frigere, <i>gud.</i>	Globus, <i>mnb.</i>
Frivolus, <i>sofshem sofsig.</i>	Glomus, <i>mnbfram.</i>

Gloria, <i>stef prog sin.</i>	Hypocaustum, <i>fongam.</i>
Glubere, <i>dos zf.</i>	Hypocrita, <i>png.</i>
Glmma, <i>ig.</i>	
Gluten, <i>shangap rnp.</i>	JACTARE, <i>prog.</i>
Ghntio, <i>paf.</i>	Jaeulum, <i>fip.</i>
Grammatica, <i>temtos.</i>	Janua, <i>ak.</i>
Grando, <i>nemnam goba.</i>	Idea, <i>sag.</i>
Granum, <i>gopar suma rug.</i>	Idioma, <i>tin.</i>
Gratia, <i>pon skam pik.</i>	Idolum, <i>sasva shiba.</i>
Gratis, <i>stifai.</i>	Jecus, <i>snes.</i>
Gratulari, <i>stat.</i>	Jejunus, <i>pebpaf drag grnn.</i>
Gremium, <i>shunu bem smrrri.</i>	Ignominia, <i>trud pog.</i>
Grex, <i>shum, — ind.</i>	Ignorantia, <i>sofsem.</i>
Grundia, <i>ek.</i>	Ignoscere, <i>krof kon stvp.</i>
Gubernare, <i>kan sud.</i>	Illidere, <i>dam den shom.</i>
Gula, <i>snas.</i>	Imago, <i>sln sag.</i>
Gutta, <i>mam srf nim.</i>	Imber, <i>non.</i>
 HABENA, <i>shundsf sif sabdunmeis.</i>	Imminere, <i>tud tim ben meis dedemp</i>
Habitu, <i>son sif.</i>	Imo, <i>tim sib.</i>
Habitus, <i>set.</i>	Impensa, <i>strp.</i>
Hamus, <i>rzbshzp sabrzp sabrab.</i>	Importunitas, <i>dan shit ship sud.</i>
Harmonia, <i>sosgis.</i>	Imputare, <i>kib.</i>
Harpago, <i>sabdrid sabdvs.</i>	Incendere, <i>semesu nm.</i>
Haurire, <i>deb.</i>	Incestus, <i>kuf steb.</i>
Hebdomas, <i>danvo danvai.</i>	Incitare, <i>spad tub.</i>
Hebetudo, <i>pim tamu svn a.</i>	Ineommendum, <i>sofscg strzg shnb.</i>
Herus, <i>kam.</i>	Ineus, <i>sabbrendig.</i>
Hilaritas, <i>pob pid.</i>	Indoles, <i>tam.</i>
Historia, <i>tig.</i>	Indulgere, <i>pon svmpum.</i>
Hodie, <i>toldanve.</i>	Induere, <i>freimesu dit.</i>
Horizon, <i>mab bepe mrsu.</i>	Indusium, <i>bredfreim.</i>
Horreum, <i>fanneib.</i>	Industria, <i>pip pum spzr.</i>
Hortus, <i>dadneid.</i>	Infans, <i>urva.</i>
Hospitium, <i>steg.</i>	Ingenuus, <i>pis sima, tvb sid.</i>
Humerus, <i>fes.</i>	Inguen, <i>snv snvr.</i>
Humilis, <i>prot bren.</i>	Initium, <i>sem.</i>
Hyems, <i>dangram.</i>	Innocentia, <i>sofkos keb.</i>
	Inopinans, <i>sofpiun.</i>

Insigne, <i>tos stjf toskns.</i>	Lancea, <i>jip.</i>
Instituo, <i>tib trvn sud.</i>	Languere, <i>grugdryb.</i>
Integer, <i>sis sun sofdon.</i>	Laniare, <i>dom dof kasneikshrpel.</i>
Intercapedo, <i>bem.</i>	Laqueus, <i>sabspat.</i>
Intecedere, <i>pribesv bem tol brem tel sntkif.</i>	Largitas, <i>pok.</i>
Interdum, <i>shundanni.</i>	Lasevia, <i>trwpap.</i>
Interea, <i>trimshaf luldan teldan.</i>	Latere, <i>dit sofjem.</i>
Interest, <i>seg sig stzg.</i>	Laterna, <i>femfrm gona.</i>
Intermitto, <i>sofslem.</i>	Latrina, <i>faniem.</i>
Interstitium, <i>bem.</i>	Latro, <i>kvn.</i>
Intricare, <i>dop shep.</i>	Latrare, <i>panu svt nikprim.</i>
Inventarium, <i>feffrein.</i>	Lavare, <i>nimsifesv.</i>
Invicem, <i>szt.</i>	Legere, <i>tin tif.</i>
Iris, <i>mabgosies.</i>	Legumnen, <i>wb.</i>
Irritare, <i>spad sofsham.</i>	Lentigo, <i>grngslomgos.</i>
Iter, <i>pnd.</i>	Lentus, <i>drjn gap.</i>
Jubere, <i>tup.</i>	Lepidus, <i>pid pobre.</i>
Jubar, <i>mrm stjf gomu.</i>	Lepra, <i>gruggofrf.</i>
Jugulum, <i>meir.</i>	Lethargia, <i>grngprab.</i>
Jugum, <i>sabdrosmeir.</i>	Librare, <i>trg dzm.</i>
Jumentum, <i>neik spap.</i>	Lienteria, <i>gruggratsnar.</i>
Jungere, <i>dros.</i>	Lignum, <i>neig sneig.</i>
Jurgium, <i>spap.</i>	Limare, <i>gratresv.</i>
Juvenis, <i>urve.</i>	Limen, <i>abiak.</i>
LABARE, <i>ded.</i>	Limes, <i>bep tos.</i>
Labarinthus, <i>shep.</i>	Limus, <i>nomshif.</i>
Lacertus, <i>smn.</i>	Limire, <i>din.</i>
Laeus, <i>lir.</i>	Lingere, <i>naresv.</i>
Laedere, <i>predesv kvn.</i>	Linteun, <i>fremsnvd.</i>
Laetari, <i>pob.</i>	Lippus, <i>grugpredmrs.</i>
Lævigare, <i>gratresv.</i>	Liquor, <i>gan.</i>
Lagena, <i>fren wjfa.</i>	Littus, <i>zb stjf is.</i>
Lambere, <i>naresv.</i>	Livor, <i>pob pron.</i>
Lamentari, <i>spab spram.</i>	Locare, <i>dad stob.</i>
Lamina, <i>mem.</i>	Lodix, <i>freimfrun.</i>
Lampas, <i>frzn.</i>	Lorum, <i>frmfcem.</i>
Lana, <i>um stjf nekpm.</i>	Lues, <i>grugsvnshrp.</i>

Luseus, <i>grugbrrfinus.</i>	Mensis, <i>danev daniar.</i>
Lutum, <i>nomshif.</i>	Mereri, <i>sat.</i>
Luxuria, <i>trvbped.</i>	Meretrix, <i>kvb.</i>
	Meridies, <i>brepdangom.</i>
MACER, <i>grad shomief.</i>	Meta, <i>tos bep.</i>
Machina, <i>sabkus.</i>	Methodus, <i>sud.</i>
Macula, <i>slomgos.</i>	Metere, <i>dom drotesv raggi.</i>
Madere, <i>gan.</i>	Metrum, <i>trog.</i>
Magnus, <i>svm.</i>	Messis, <i>dandrotray danrag.</i>
Majestas, <i>sviu kana.</i>	Mica, <i>shunif.</i>
Mala, <i>no nn.</i>	Migrare, <i>shndesv stidu bemdam.</i>
Malleus, <i>sabdig sabdib.</i>	Mimus, <i>pvn.</i>
Malle, <i>tud son.</i>	Minuere, <i>shomresv.</i>
Mandibula, <i>nn.</i>	Mittere, <i>prndresv stin.</i>
Mane, <i>sem dangom.</i>	Modus, <i>ev srs ses.</i>
Manere, <i>dram slem danev.</i>	Modestia, <i>tbpog.</i>
Manica, <i>freimusmes.</i>	Molare, <i>dif.</i>
Manifestus, <i>pemo.</i>	Momentum, <i>danva.</i>
Manipulus, —— <i>ind drot.</i>	Monachus, <i>kaf stes.</i>
Mantile, <i>freimfran freimsmossif.</i>	Monere, <i>penresv tub.</i>
Mantica, <i>from.</i>	Moneta, <i>fium.</i>
Manubrium, <i>shundv.</i>	Monstrum, <i>gvp shnk.</i>
Margo, <i>bep.</i>	Monumentum, <i>femshrp av penre.</i>
Marsupium, <i>from.</i>	Mora, <i>dan shaf.</i>
Massa, <i>mim.</i>	Morbus, <i>grng.</i>
Mater, <i>pragel.</i>	Mordere, <i>nasesv.</i>
Matrimonium, <i>stefu.</i>	Mortarium, <i>frendif.</i>
Maxilla, <i>ws.</i>	Mucere, <i>grvp.</i>
Mederi, <i>gngresv.</i>	Mucro, <i>bep.</i>
Meio, <i>remesv.</i>	Mulgere, <i>baddib drid en.</i>
Mel, <i>neugrm.</i>	Mulier, <i>uv prag.</i>
Membrum, <i>shun sif ov.</i>	Muleta, <i>fimkof.</i>
Membrana, <i>rf grada ed grada.</i>	Mundus, <i>avind.</i>
Menda, <i>sir trenshvd.</i>	Mungere, <i>dib sif.</i>
Mendacium, <i>tinshib.</i>	Munire, <i>vpesv ripesv feipesv.</i>
Mendicare, <i>tun fleimtun.</i>	Munus, <i>stif.</i>
Mens, <i>eiv tam, tal.</i>	Murmur, <i>grid.</i>
Mentio, <i>tin.</i>	

Murus, <i>ip rup vp.</i>	Notio, <i>tab pem, shan.</i>
Museulus, <i>ef.</i>	Notorius, <i>smpemo.</i>
Musiea, <i>temgis.</i>	Notare, <i>tos puf.</i>
Mussare, <i>tinesu gridai gibai.</i>	Nothus, <i>payol sofsteфа.</i>
Mutilus, <i>sir shnge shunu.</i>	Novacula, <i>sabdom.</i>
Mutus, <i>softin.</i>	Nox, <i>dangrom.</i>
Mutuare, <i>stop.</i>	Nubere, <i>stef.</i>
	Nudus, <i>sofdit soffreim.</i>
NEVUS <i>shin shif.</i>	Nugae, <i>tinu pifa sofshama.</i>
Nanus, <i>uvif.</i>	Nullus, <i>sofavr.</i>
Nares, <i>doggnu fif mv.</i>	Numero, <i>trg shumu fus.</i>
Nasci, <i>prat.</i>	Nuncius, <i>stinel tigel.</i>
Natura, <i>sasvн shan sek.</i>	Nutare, <i>damesv meis.</i>
Navigare, <i>fzndeposv.</i>	Nux, <i>raysnig.</i>
Nausea, <i>grug pebdag snal.</i>	
Nebula, <i>nengrafes.</i>	OBDUCERE, <i>dit.</i>
Nebulo, <i>uv shima shiba, kusel.</i>	Objicere, <i>shomtin shomden.</i>
Nec, <i>trn trim.</i>	Obruо, <i>dit dedresv dib.</i>
Necesse, <i>sed.</i>	Obscenitas, <i>pog tinu papa.</i>
Necare, <i>shzpresv.</i>	Obscuritas, <i>grom shep.</i>
Nectere, <i>drop dop.</i>	Obsec, <i>stf.</i>
Nefas, <i>sofkef sofkeb.</i>	Obsoleo, <i>sofset.</i>
Negligere, <i>prip.</i>	Obstetrix, <i>safpratel.</i>
Negotium, <i>sar sod san.</i>	Obstinatus, <i>trspib.</i>
Nemus, <i>sneigdad.</i>	Occidens, <i>shunu breba sif nam.</i>
Nere, <i>framresv.</i>	Occupare, <i>dif stib.</i>
Nequam, <i>shim kvs.</i>	Orcia, <i>freimsmer.</i>
Neuter, <i>sofiaf fzf vnz.</i>	OEconomia, <i>steis.</i>
Nictare, <i>dam mn.</i>	Officium, <i>steis.</i>
Nidus, <i>dadneippurat.</i>	Officium, <i>kas.</i>
Niger, <i>grof.</i>	Officina, <i>fanspvp.</i>
Nimis, <i>svd.</i>	Oleum, <i>ad.</i>
Ningere, <i>nen gofa goba.</i>	Olere, <i>ges.</i>
Nitere, <i>gom bzggom.</i>	Olla, <i>fren.</i>
Nocere, <i>shig kvm.</i>	Omen, <i>tos.</i>
Nodus, <i>drod dop.</i>	Omittere, <i>trim samesv sodesv.</i>
Norma, <i>sabbab tok.</i>	Omnis, <i>sun.</i>
Noscere, <i>pem.</i>	Onerare, <i>dzm.</i>

Opera, <i>sl̄p.</i>	Perire, <i>sofiav sofshan.</i>
Opus, <i>sp̄p̄ sar.</i>	Perficere, <i>sisresv shem.</i>
Opportunitas, <i>dansit.</i>	Peripheria, <i>eb.</i>
Oraculum, <i>tridu s̄f sasva keb.</i>	Peritia, <i>tem ten prim.</i>
Orbis, <i>mab.</i>	Pernio, <i>grugsmor.</i>
Orificium, <i>dog.</i>	Perperus, <i>shim tren.</i>
Oriens, <i>shun beba s̄f nam.</i>	Pessulus, <i>up.</i>
Oscitare, <i>grug dogmeis.</i>	Petra, <i>nyfind.</i>
Ostendere, <i>samesv n̄sesv pemesv.</i>	Petulans, <i>prig put.</i>
Ostentum, <i>av sh̄ka.</i>	Philosophia, <i>tem, temlef.</i>
PASCISCI, <i>stos.</i>	Phlegma, <i>ran.</i>
Pagina, <i>zb.</i>	Pius <i>shas skam.</i>
Palatium, <i>fan s̄f kanel.</i>	Piger, <i>prip.</i>
Pallium, <i>freimbed.</i>	Pila, <i>mn̄b spaf.</i>
Pallere, <i>gog.</i>	Pileus, <i>freimmeis.</i>
Palma, <i>shauu baga s̄f smv.</i>	Pingo, <i>trin fnd.</i>
Par, <i>sl̄nshum.</i>	Pinguis, <i>gad ef gn̄.</i>
Parabola, <i>sl̄ntrod sagtrod.</i>	Pinaculum, <i>mn̄b.</i>
Parare, <i>sad sitre.</i>	Pistillum, <i>sabdib dif.</i>
Parvus, <i>sl̄v̄m.</i>	Placeo, <i>spag ped.</i>
Pascere, <i>gum.</i>	Planus, <i>grat.</i>
Passus, <i>p̄b̄u suma.</i>	Platea, <i>dadp̄b.</i>
Pater, <i>pagel.</i>	Plaustrum, <i>sl̄n.</i>
Patrimonium, <i>sl̄bu slima.</i>	Plecto, <i>dop.</i>
Patina, <i>frenfleim.</i>	Pleuritis, <i>grugfal.</i>
Patria, <i>pratnom.</i>	Pluvia, <i>nen.</i>
Pancitas, <i>sh̄mshum.</i>	Poculum, <i>frrenpraf.</i>
Pavire, <i>gratresv rukresv.</i>	Podagra, <i>grugsuwr.</i>
Pacare, <i>sprad krus.</i>	Pæna, <i>kof.</i>
Peccare, <i>kvs tren.</i>	Politia, <i>keis.</i>
Pecten, <i>sabdrop.</i>	Pollex, <i>smus suma vasa.</i>
Pecus, <i>neik.</i>	Pollicor, <i>stom.</i>
Pedere, <i>fusgis.</i>	Pompa, <i>feid stam.</i>
Pendere, <i>b̄m dnd.</i>	Pono, <i>dam dad b̄ns.</i>
Pensum, <i>sp̄pu trgo.</i>	Populus, <i>uvind.</i>
Penetrare, <i>dob b̄rn.</i>	Porrigo, <i>drek.</i>
Pera, <i>from.</i>	Porta, <i>ak.</i>
	Portentum, <i>tos sh̄k.</i>

Postis, <i>ep.</i>	Pruna, <i>ov nyma.</i>
Praecepis, <i>blzm ded.</i>	Prurio, <i>grugdin.</i>
Praecipuus, <i>svf.</i>	Puer, <i>uvv7.</i>
Praeda, <i>kup.</i>	Pulvis, <i>mamind.</i>
Praedico, <i>tin stzn subtin.</i>	Pupilla <i>mzb suf mzs.</i>
Praedium, <i>stib.</i>	Purgo, <i>sif.</i>
Prajudicium, <i>svtag.</i>	Pus <i>grp.</i>
Praelum, <i>sabdib.</i>	Pustula, <i>grugmrbirf.</i>
Praemium, <i>stzt.</i>	Puto, <i>tag tat.</i>
Praeposternus, <i>shvbsvb.</i>	Putris, <i>grp.</i>
Praesepes, <i>dadpaf.</i>	
Praestigiae, <i>shib spak.</i>	QUADRA, <i>rortzb.</i>
Praestolor, <i>pun dap</i>	Quatio, <i>damresv.</i>
Praetendere, <i>pug</i>	Quatenus, <i>son.</i>
Praevericari, <i>tren shib.</i>	Qualis, <i>er s7s geis.</i>
Prandum, <i>pafu brepdangom.</i>	Quisquiliae, <i>shif.</i>
Pratum, <i>lornab.</i>	
Primitivus, <i>szm.</i>	RACEMUS, <i>ragsnug.</i>
Princeps, <i>kan svf.</i>	Radius, <i>m7m.</i>
Privilegium, <i>kebstrzn.</i>	Rado, <i>dom din.</i>
Procella, <i>dam shek.</i>	Ranceo, <i>grp.</i>
Proclivis, <i>blzm ded.</i>	Rapio, <i>dos df.</i>
Proclus, <i>pon tun stef.</i>	Rastrum, <i>f7zn.</i>
Procul, <i>shvzbem.</i>	Ratio, <i>tap sas.</i>
Prodigium, <i>pom.</i>	Raucus, <i>gruggig.</i>
Prophanus, <i>skram skur.</i>	Reus, <i>kvs.</i>
Proficio, <i>sig sim.</i>	Recens, <i>dab.</i>
Prositeor, <i>tim kig pem.</i>	Reciprocus, <i>stt.</i>
Prodigus, <i>trvbok.</i>	Recordor, <i>pen.</i>
Progenies, <i>pagolli.</i>	Recreo, <i>sprnt.</i>
Prohibeo, <i>tup shomtup.</i>	Reddo, <i>senspb.</i>
Promineo, <i>brap blzm.</i>	Reformo, <i>senshan sendab.</i>
Promiscuns, <i>shud.</i>	Rego, <i>sud pnt kan.</i>
Promptus, <i>sit.</i>	Regnum, <i>kan.</i>
Promontorium, <i>rib szf nom.</i>	Relinquo, <i>suf.</i>
Prosper, <i>sak sima.</i>	Remedium, <i>sa7 gug.</i>
Proverbium, <i>tinu sugae.</i>	Repagulum, <i>up.</i>
Prudentia, <i>tef teg.</i>	Reparo, <i>senshan sendab.</i>

Repentinus, <i>pum dñu.</i>	Sarcio, <i>senshan saf sis.</i>
Repo, <i>prf.</i>	Satur, <i>dag.</i>
Respublica, <i>sten st̄bu st̄na.</i>	Sauceins, <i>grng.</i>
Restis, <i>fñm.</i>	Saxum, <i>w̄find.</i>
Resurrectio, <i>sengsp.</i>	Seaber, <i>gat.</i>
Rete, <i>fremspat.</i>	Seabies, <i>gruggripif.</i>
Rheda, <i>flin.</i>	Seamnum, <i>frin dadpñk.</i>
Rigo, <i>gan.</i>	Scandalum, <i>sprag.</i>
Ripa <i>rb s̄f ris.</i>	Seando, <i>dred.</i>
Ringo, <i>drift nassi.</i>	Scateo, <i>dot gak rir.</i>
Ritus, <i>stam.</i>	Seclus, <i>kvs.</i>
Rivus, <i>rir.</i>	Sceptum, <i>sabdrñd s̄f kanel.</i>
Robur, <i>sef dñb.</i>	Schleda, <i>mem s̄f fñf.</i>
Rodo, <i>din nas.</i>	Schiisma, <i>dos kvd.</i>
Rogo, <i>tun tid.</i>	Schola, <i>fantrib.</i>
Ros, <i>nen grafa.</i>	Seintilla, <i>mamnrum.</i>
Rostrum, <i>meis s̄f meip.</i>	Scopæ, <i>sabsif.</i>
Rota, <i>mab.</i>	Scopulus, <i>w̄find.</i>
Rotundus, <i>mñb.</i>	Scoria, <i>grupu s̄f nef.</i>
Rubeo, <i>god.</i>	Scortor, <i>kuf.</i>
Rubigo, <i>grp.</i>	Sculpo, <i>trin dom.</i>
Ructo, <i>grugnemsnal.</i>	Scutum, <i>fvp.</i>
Rudis, <i>softem gal stran.</i>	Sebum, <i>ref.</i>
Rudo, <i>pamu s̄f mñkpim.</i>	Secretus, <i>fospem dit strm.</i>
Ruga, <i>dekk.</i>	Seculm, <i>daniel vali danszp.</i>
Rumor, <i>tip.</i>	Securis, <i>sabdom.</i>
Rumpo, <i>don.</i>	Securus, <i>szb prip.</i>
Ruo, <i>ded.</i>	Scedeo, <i>pñk.</i>
SABBATUM, <i>danre vaisa.</i>	Sedo, <i>sprad.</i>
Sacer, <i>skam.</i>	Sedulus, <i>pum pip.</i>
Sacrilegium, <i>kvenskas.</i>	Senita, <i>dadpñb.</i>
Sacerdos, <i>skagel.</i>	Senex, <i>uv draba urru.</i>
Sal, <i>nafyrf.</i>	Sentina, <i>sahdebnim.</i>
Salarium, <i>frennafyrf.</i>	Sentio, <i>peis.</i>
Saltem, <i>shvf.</i>	Sententia, <i>trod tag.</i>
Sanctus, <i>skam.</i>	Sepolio, <i>brennom dit.</i>
Sapo, <i>sansif.</i>	Sepio, <i>ip beg.</i>
	Septentrio, <i>bref.</i>

Sera, <i>sahdrog up.</i>	Specus, <i>ol.</i>
Serica, <i>sar sif frem sneipa.</i>	Sperno, <i>prop.</i>
Sermo, <i>tin trod.</i>	Spina, <i>af sif far.</i>
Sero, <i>gvp.</i>	Spinter, <i>dop drod.</i>
Serra, <i>sabdom gata.</i>	Spisso, <i>gaf gad.</i>
Setæ, <i>am.</i>	Splendeo, <i>gom.</i>
Severus, <i>prid pin.</i>	Spondeo, <i>stv̄m.</i>
Sibili, <i>grid panu sif nuk.</i>	Sponsus, <i>stef.</i>
Significo, <i>tos.</i>	Spongia, <i>sabsif.</i>
Sileo, <i>softin.</i>	Spuma, <i>memnzbind.</i>
Similis, <i>slm.</i>	Spuo, <i>ran.</i>
Simulaerum, <i>slm fnd.</i>	Spurins, <i>shib pagol sofstef.</i>
Sinus, <i>m̄sbrab.</i>	Stagnum, <i>hir.</i>
Sindon, <i>fremsnvd.</i>	Stamen, <i>fram.</i>
Singularis, <i>sum shik.</i>	Statuo, <i>tag trvn.</i>
Singultio, <i>grugdeksnal.</i>	Statura, <i>bam t̄yg.</i>
Sino, <i>slaf.</i>	Sterquilinium, <i>shifind emind.</i>
Sinus, <i>rnb sif is.</i>	Stero, <i>dit dedresv.</i>
Siphon, <i>fam.</i>	Sternuo, <i>grug sifmus.</i>
Sisto, <i>dram dvs.</i>	Stero, <i>grugprabpan.</i>
Sitio, <i>pebpraf.</i>	Stillo, <i>mam ded.</i>
Situs, <i>b̄s grvp shif.</i>	Stimulo, <i>dik.</i>
Solea, <i>ab sf smv̄.</i>	Stipo, <i>krum prvp.</i>
Sollenmitas, <i>stn̄n.</i>	Stipula, <i>l̄d r̄d.</i>
Sollicitus, <i>pum pip.</i>	Stiria, <i>m̄m mob sif nimgb.</i>
Solidus, <i>gad graf.</i>	Sto, <i>b̄m.</i>
Solor, <i>trug.</i>	Stabilio, <i>dramresv, keb.</i>
Solum, <i>ab sum.</i>	Stomachus, <i>smal.</i>
Solus, <i>sum ster.</i>	Strabo, <i>grug br̄fm̄s.</i>
Sommio, <i>prab pef.</i>	Stragulum, <i>freimfrun.</i>
Sorbeo, <i>paf.</i>	Stramen, <i>l̄d sif nob nub.</i>
Sordeo, <i>shif.</i>	Strangulo, <i>shafpam sofpm̄.</i>
Soror, <i>steprag vasa.</i>	Strepo, <i>gis gig.</i>
Sors, <i>sak.</i>	Strideo, <i>gis gig.</i>
Spatium, <i>bem.</i>	Stringo, <i>dib.</i>
Species, <i>tlob shan.</i>	Strophialum, <i>fremsm̄s freimsifmus.</i>
Specimen, <i>tzb preg.</i>	Struma, <i>grugmr̄b meir.</i>
Spectrum, <i>m̄sor profre.</i>	Struo, <i>feinesv drot.</i>

Stadeo, <i>tat.</i>	Tango, <i>brem gas.</i>
Stupa, <i>snu d sir.</i>	Tela, <i>frem.</i>
Stupeo, <i>pom grugsofpeis.</i>	Temerarius, <i>softvn.</i>
Stuprum, <i>kvf.</i>	Temno, <i>prop.</i>
Stylus, <i>ex sabtrin sestrin.</i>	Temo, <i>shundvn srf stin.</i>
Suadeo, <i>tut tub.</i>	Templum, <i>fansava.</i>
Suavis, <i>gem sip.</i>	Tempestas, <i>dan damu srf nem.</i>
Subitus, <i>sofpun drn.</i>	Tendo, <i>drek damesu bns.</i>
Submergo, <i>brednimesu brennim.</i>	Tenor, <i>sud shan sot.</i>
Subsido, <i>ded dam bns ab.</i>	Tento, <i>preg tnb.</i>
Subula, <i>sabdob.</i>	Tepidus, <i>glam.</i>
Succedo, <i>shvb.</i>	Terebro, <i>dob.</i>
Sudus, <i>gom sofies.</i>	Tergo, <i>sif din.</i>
Sufficientia, <i>stvd.</i>	Tergum, <i>zf far.</i>
Suffulcio, <i>dzd.</i>	Termino, <i>bep shem.</i>
Sugo, <i>deb drid.</i>	Tessera, <i>tos nrh spafa.</i>
Suleus, <i>dripu srf flan.</i>	Testa, <i>frn noma mem gaba.</i>
Summa, <i>sun.</i>	Texo, <i>dop fremresv.</i>
Suo, <i>dros.</i>	Theatrun, <i>dadfad.</i>
Superbus, <i>trubpop.</i>	Thesaurus, <i>fum strb.</i>
Superflus, <i>svd.</i>	Thorax, <i>freimfeis.</i>
Supero, <i>son kut.</i>	Tibialia, <i>freimsmer.</i>
Sura, <i>smer.</i>	Tingo, <i>gos.</i>
Surdus, <i>grugsofmr.</i>	Timmio, <i>gis nef.</i>
Sursum, <i>dred bzs ben.</i>	Titillo, <i>dimped.</i>
Suscito, <i>pabresv.</i>	Titubo, <i>prb brsf shaf prb.</i>
Suspiro, <i>grugsheppam.</i>	Titulus, <i>mam ked.</i>
Susurro, <i>trin grid.</i>	Toga, <i>freim bam.</i>
Sylva, <i>dadsneig sneigind.</i>	Tolero, <i>prod slaf.</i>
Symbolum, <i>tos.</i>	Tondeo, <i>dom.</i>
Syneurus, <i>sib sofpug.</i>	Tono, <i>gis.</i>
TABEO, <i>gruggrupsbns.</i>	Toreculare, <i>sabdib.</i>
Tabula, <i>fef.</i>	T tormentum, <i>pred.</i>
Taceo, <i>softin.</i>	Torno, <i>temdomesu nrbai.</i>
Tædeo, <i>spnt.</i>	Torpeo, <i>spnt drm.</i>
Talis, <i>lelsns lolsns.</i>	Torqueo, <i>malbdamesvr.</i>
Talus, <i>af srf smr brapa.</i>	Torques, <i>frm begmei.</i>
	Torrens, <i>ris.</i>

Torro, <i>nzm god.</i>	Vegetus, <i>gugspn̄t.</i>
Torvus, <i>pit prid.</i>	Vehemens, <i>swm pin.</i>
Trabs, <i>ap.</i>	Vellus, <i>ditu ana srf nekpm̄.</i>
Tranquillus, <i>dram.</i>	Vendico, <i>kr̄ib.</i>
Tremo, <i>profdam.</i>	Venenum, <i>sh̄pre.</i>
Tribunal, <i>friñkm̄.</i>	Veneror, <i>skaf.</i>
Tributum, <i>fumkan.</i>	Venia, <i>st̄p.</i>
Tripudio, <i>tempn̄g.</i>	Venor, <i>prt spm̄.</i>
Tristis, <i>prob.</i>	Ventus, <i>er.</i>
Triunpho, <i>fed.</i>	Ver <i>danguf.</i>
Trochus, <i>sabspaf moba.</i>	Verbero, <i>dig.</i>
Trndo, <i>did.</i>	Verbum, <i>trom.</i>
Tuber, <i>grugbrap.</i>	Verecundus, <i>tbpbog.</i>
Tubus, <i>fam.</i>	Verro, <i>sif din.</i>
Tueor, <i>krum.</i>	Verruca, <i>grugbrapizf.</i>
Tumeo, <i>brap drek.</i>	Vertebrae <i>drosu srf smeis.</i>
Tumultus, <i>grim dimu srf uvvi shuga</i>	Vertex, <i>rab.</i>
Tundo, <i>dig did.</i>	Vertigo, <i>grugdebrin.</i>
Tunica, <i>freimseis.</i>	Vern, <i>ib fleimgvd.</i>
Turba, —— <i>ind shum.</i>	Vesper, <i>shemu srf dangom.</i>
Turbo, <i>er mabdan.</i>	Vestigium, <i>dipu srf sm̄r.</i>
Turris, <i>fankus fanfab.</i>	Vexillum, <i>toskus.</i>
Tyrannus, <i>kanel pita.</i>	Vexo, <i>ship.</i>
Vaco, <i>drag sofspop.</i>	Via, <i>dadpr̄b.</i>
Vadum, <i>dradpraf srf ris.</i>	Vibex, <i>dipu srf domu srf zif.</i>
Vagus, <i>sofstid trenpnd</i>	Vibratio, <i>dam den.</i>
Vah, <i>prob.</i>	Victima, <i>skag.</i>
Valetudo, <i>grug.</i>	Vicus, <i>dabpr̄b brana.</i>
Vannio, <i>nemsif.</i>	Vicinus, <i>sted sh̄m̄ bem.</i>
Vanesco, <i>sofslēm m̄sosov.</i>	Video, <i>ur̄sosov peisgosesv.</i>
Vapor, <i>nein.</i>	Vigeo, <i>gud sprnt.</i>
Vapulo, <i>dig kof.</i>	Vilis, <i>prop st̄nd shuma.</i>
Varius, <i>slom.</i>	Villa, <i>fanind sh̄ma.</i>
Vasto, <i>drag sofstid.</i>	Villus, <i>am.</i>
Ubertas, <i>gan.</i>	Vincio, <i>drod.</i>
Udus, <i>gan.</i>	Vinum, <i>adsnug.</i>
Vectis, <i>sabdeg.</i>	Violo, <i>shin k̄m.</i>

Virgo, <i>pragal sofpragel.</i>	Voveo, <i>stvn.</i>
Viscus, <i>vd gapa.</i>	Urbs, <i>fanind.</i>
Vito, <i>pub srb shaf.</i>	Urna, <i>fren noma.</i>
Vitulus, <i>nokflauva.</i>	Uro, <i>uymesv.</i>
Uleiscor, <i>pvd.</i>	Uter, <i>lul srf vn av.</i>
Uleus, <i>grugbrapgrv.</i>	Utrum, <i>tid.</i>
Ullus, <i>av.</i>	Utor, <i>sab slam sig.</i>
Ultimus, <i>shvb.</i>	Usurpo, <i>stibesv shou keb kef.</i>
Umbra, <i>gron.</i>	Vulgaris, <i>uevi strifa.</i>
Uncus, <i>sabrbdf.</i>	Vulnero, <i>dom.</i>
Ungo, <i>din dit dot.</i>	Vultus, <i>mar.</i>
Unctuosus,	Uxor, <i>stefprag.</i>
Universalis, <i>sug.</i>	
Unusquisque, <i>sunsum sunshun.</i>	ZELOTYPUS, <i>pup.</i>
Vola, <i>shun baga srf smos.</i>	Zona, <i>eb mab.</i>
Volvo, <i>deb.</i>	Zythum, <i>flnm nuba.</i>
Vomo, <i>dragesv snal.</i>	

Sequitur specimen Artis instituendi Nomina Speciebus Naturæ significandis, complectens præcipuas Notiones sub Genere *Concreti Physici* contentas, quæ in S. Sc. occurruunt: Et haec Exempla instar Regulæ fint, secundum quam omnium aliarum hujusmodi Notionum Nomina instituenda sunt.

Naf Medium Minerale.

CARBO, *nafgofuzm.*
Sulphur, *nafgobuzm.*
Sal, *nafgrif.*
Argilla, *nafgap.*

Nf lapis Vulgaris.
Silex, *nfgab nfnzm.*
Pumex, *nfgraf.*
Tophus, *nfgrap.*
Magnes, *nfdet nefgab.*

Cos, *nff bnbre.*
Alabaster, *nfgofgrat.*
Marmor, *nfgrat.*
Gypsum, *nfrzp.*
Coralium, *nfgod.*
Vitrum, *nfgubnzm.*
Crystallum, *nfgubnzm gona.*
Gagates, *nfgen.*

Gemma Snf.

Adamas, *snfgnb.*



Sapphirus, *sn̄fgr̄ob.*
 Achates, *sn̄fshumgos.*
 Jaspis, *sn̄fgrod.*
 Carbunculus, *sn̄furm.*
 Amethystus, *sn̄fgrog.*
 Chrysolithus, *sn̄fgob.*
 Smaragdus, *sn̄fs̄mgrod.*
 Topazius, *sn̄fgromgom.*
 Chaledonius, *sn̄fyof.*

Metallum Nef.

Aurum, *nefsis.*
 Argentum, *nefgofsis.*
 Stannum, *nefgofsil.*
 Plumbum, *nefgofsir.*
 Cuprum, *nefgod.*
 Æs, *nefyob.*
 Ferrum, *nefyab.*

Herba Neib.

Gramen, *nab.*
 Cæpe, *nebgn agm̄ba.*
 Allium, *nebgn agbana.*
 Cucumis, *nib mba.*
 Cucurbita, *nib moba.*
 Melo, *nib s̄ma.*
 Malva, *n̄biagban.*
 Triticum, *n̄bsim.*
 Hordeum, *n̄bf̄m.*
 Taba, *nobsfbab.*
 Zizania, *nobshv̄f.*
 Pisum, *nobslv̄f.*
 Sinapi, *nubgr̄m.*
 Lilium, *nadsin.*
 Viola, *ndgem.*
 Urtica, *sn̄d oda.*

Linum, *sn̄d ruggrata.*
 Cannabum, *sn̄d syfa.*
 Cieuta, *sn̄dgen.*
 Mentho, *snaibges.*
 Hyssopus, *snedgem.*
 Cuminum, *sn̄dgem.*
 Coriander, *sn̄d rugbag.*
 Nardum, *snaib aggob.*
 Balsamum, *snaibgem.*
 Nad, *agsubrag.*
 Aloes, *snudgrem.*
 Laurus, *neggem.*
 Erica, *nag grunnom.*
 Ruta, *naggen.*
 Thymum, *naggem.*
 Rosa, *n̄g lagsin.*

Arbor Sneid.

Fraxinus, *snagsom bamriq.*
 Tremulus, *snag agdam.*
 Salix, *snag r̄glag.*
 Quercus, *sn̄gsom.*
 Abies, *sneg bab.*
 Ficus, *sn̄g agban.*
 Cedrus, *snegbam.*
 Castanea, *snig aggat.*
 Pomum, *sn̄g.*
 Pyrus, *sn̄g ragmob.*
 Morus, *sn̄g lading.*

Bruta Exsanguia.

Apis, *snapgr̄m.*
 Culex, *sn̄pshv̄f.*
 Cicada, *sn̄kspan.*
 Pulex, *sn̄kp̄g.*
 Pediculus, *sn̄kuv.*

Formica, *snnkpeg.*
 Aranea, *snnkfiam.*
 Limax, *snakdr̄n.*
 Vermis, *snak.*

Avis Neip.

Aquila, *napsyf.*
 Cignus, *nupsyf.*
 Columba, *nippriñ.*
 Gallus, *nippot.*
 Pavo, *nipsin.*
 Hirundo, *neipd̄n.*
 Vespertilio, *n̄pb̄pp̄n.*
 Alauda, *neipbenpr̄n.*
 Phœnix, *neipea.*
 Cuculus, *nepsompan.*
 Ardea, *n̄psvmspis.*
 Corvus, *napgrof.*
 Regulus, *neipshrf.*
 Strutheocamelus, *neipsyf.*

Quadrupes Neik.

Equus, *nekpot.*
 Elephas, *nnksuf.*
 Asinus, *n̄kprim.*
 Mulus, *nnksopad.*
 Camelus, *nekbrapfar.*
 Unicornis, *nekivmva.*
 Bos, *nekflan.*
 Cervus, *nekdr̄n svna.*
 Dama, *nekdr̄n shvna.*
 Canis, *nikprim.*
 Lepus, *nokdr̄n svna.*
 Cuniculus, *nokdr̄n shvna.*
 Leo, *nikpot.*
 Pardus, *nikshvngos.*
 Sus, *nekshif.*
 Felis, *nokditiem.*
 Crocodilus, *naksofuar.*
 Chamæleon, *nakshydgos.*

Sequitur Praxis,

P R A X I S.

PRIMUM CAPUT GENESEOS.

1. DAN femu, Sava samefa Nam tn Nom.
2. Tn nom avefa sof-thana tn draga, tn gromu avefa ben mem ff bafu: tn ov ff Sava damefa ben mem ff nimmi.
3. Tn Sava tinefa, gomu avefo: tn gomu avefa.
4. Tn Sava mzsefa gomu fima: tn Sava dosefa gomu dos gromu.
5. Tn Sava tonefa gomu Dan-gomu, tn tonefa gromu Dan-gromu: tn shem-gomu tn sem-gomu avefa dan-ve vafa.
6. Tn Sava tinefa, dad-dreku avefo bred brepu ff nimmi: tn dosefo nimmi dos nimmi.
7. Tn Sava samefa dad-dreku, tn dosefa nimmi bren dad-dreku dos nimmi ben dad-dreku: tn lel-fs avefa.
8. Tn Sava tonefa dad-dreku, Nam: tn shem-gomu tn sem-gomu avefa dan-ve vafa.
9. Tn Sava tinefa, nimmi bren nam dekofo bred dadu suma, tn granar mzsofo: tn lel-fs avefa.
10. Tn Sava tonefa granar Nom, tn tonefa deku ff nimmi, Ifsi; tn Sava mzsefa lolar fima.
11. Tn Sava tinefa, nom gr^epefo nab, neibeid gune rug, tn rag-sneig gune rag fos fugu lla, rug sef lul tim bred ll ben nom: tn lel-fs avefa.
12. Tn nom gunefa nab, neibeid gune rug fos fugu lla: tn sneig gune rag, rug ff lul tim bred ll, fos fugu lla: tn Sava mzsefa lolar fima.
13. Tn shem-gomu tn sem-gomu avefa dan-ve vesa.
14. Tn Sava tinefa, gommu avefo bred dad-dreku ff Nam sham dosefu dan-gomu dos dan-gromu: tn lelli avefo fas dannu, tn dan-vessi, tn dan-vussi.

15. T_n lelli aveſa fas gommu bred dad-dreku ſ_f nam, sham gomeſu ben nom : t_n lel-ſ_s aveſa.

16. T_n Sava fameſa v_v gommu ſ_mna, gomu ſ_mna sham ſudeſu dan-gomu, t_n gomu ſ_mna sham ſudeſu dan-gromu : t_n fameſa affi.

17. T_n Sava dadeſa lelli bred dad-dreku ſ_f nam sham gomeſu ben nom.

18. T_n sham ſudeſu dan-gomu, t_n dan-gromu, t_n dofeſu gomu dos gromu : t_n Sava m_mſeſa lolar ſima.

19. T_n ſhem-gomu, t_n ſem-gomu aveſa dan-ve voſa.

20. T_n Sava tineſa, nimmi ſ_m-guneſo neit, t_n neip p_mne bred dad-dreku ſ_f nam ben nom.

21. T_n Sava fameſa n_mtti ſ_mma, t_n neipteik fun-fuma p_mne, lul nimmi ſ_m-gunesa fos fugu l_vlla t_n neip fun-fuma ſ_pifo fos fugu l_va : t_n Sava m_mſeſa lolar ſima.

22. T_n Sava tufesa lelli tine, gunefo t_n ſuf-ſ_mnoſo, t_n dageſo nimmi ſ_f iſſi t_n neippi ſuf-ſ_mnoſo ben nom.

23. T_n ſhem-gomu t_n ſem-gomu aveſa dan-ve v_vſa.

24. T_n Sava tineſa, nom gunefo fneikki t_n neikki fos fugu l_vlla : t_n lel-ſ_s aveſa.

25. T_n Sava fameſa neikki t_n fneikki fos fugu l_vlla : t_n Sava m_mſeſa lolar ſima.

26. T_n Sava tineſa, lalli fameſo Uv fos fugu lalla fos ſlu_m lalla : t_n lelli kameſo neitti ſ_f is, t_n neippi ſ_f nem, t_n neikki, t_n nom ſuma, t_n fneik funſuma p_mſe dr_md nom.

27. T_n Sava fameſa uv fos fugu l_va, lelil fameſa lelil fos fugu ſ_f Sava, lelil fameſa lelilli pagel t_n pragel.

28. T_n Sava tufesa lelilli t_n tineſa fhod lelilli, gunefo, t_n ſuf-ſ_mnoſo, t_n dageſo nom t_n kameſo lela, t_n kameſo neitti ſ_f is, t_n neippi ſ_f nem t_n neikki t_n fneikki ſ_f nom.

29. T_n Sava tineſa, puſ, laſ ſp_mbeſa fhod l_vlli noibeid ſuma gune rug, lul tim ben mem ſ_f nom ſuma t_n fneig ſuma lul gunefi rag t_n rug, l_vlli ſ_fgeſu lella ſ_f fleim.

30. T_n laſ ſp_mbeſa, fhod neikki ſuma, t_n neippi ſuma t_n fneikki ſuma, neibeid groda ſuma ſ_f fleim : t_n lel-ſ_s aveſa.

31. T_n Sava m_mſeſa avvi ſuma lul fameſ_m : t_n puſ, aveſa ſ_m-lima : t_n ſhem-gomu t_n ſem-gomu aveſa dan-ve v_vſa.

PSALMUS PRIMUS. *Tudu rasa.*

1. Uv tim tufo lul trim p̄besi fos tutu ſif simalli t̄n trim b̄mefi bred dadp̄bu k̄felli, t̄n trim p̄keſi bred dadp̄ku ſif uvvi ſtrabemp.
2. Sor, lelil pobesi flop kebu ſif kamel, t̄n tateſi flop kebu lela dan-gom t̄n dangrom.
3. Sas, lelil aveſu fl̄n fineig gube ſimbem riſi ſif nimmi lul ragrefu dan-dau fiſma: ag lula trim grudeſu; t̄n lullulir lelil ſodeſu, fineſu.
4. Kufelli, trim lolf̄s, for tim fl̄n ig, lul n̄n dideſi.
5. Lelfas simalli trim b̄mefu bred dadk̄mu, t̄n k̄felli bred ſteſu ſif simalli.
6. Sas, kamel pemeſi foddu ſif simalli, t̄n foddu ſif ſhimalli ſofavroſu.

Tudu rasa.

1. LULSAS ſtenni podeſi, t̄n uvvi takeſi ſoſhamar.
2. Kanelli ſif nom flubk̄deſi, t̄n kamelli flubteſeſi flopom Safva, t̄n flopom pagol l̄la.
3. Lalli doneſo fabdroddu lella, t̄n denefo f̄mimi lella bem lalli.
4. Leſil lul ſtideſi bred Nammi ſpameſu, Safva ſtrabefu lelli.
5. Leſdan lelil tineſu flop lelil podai, t̄n ſhipeſu lelli ſas podu lala fiſma.
6. Lal dadeſu kanel lala ben Zionoi or lala ſkama.
7. Lal pemrefu tr̄nor, Safva tineſa flop lał, lał tim pagol lala: lał pa-geſa lał lol-dangom.
8. Tunefo lał, t̄n lał ſp̄beſu flop lał, ſtenni ſtimu l̄la, t̄n beppu ſif nom ſtibū l̄la.
9. Lał diſeſu lellil fab fabdonu nefgalba, t̄n doneſu lellil ſhunnu, fl̄n fren noma.
10. Lelfas, lałli Kanelli teſeſo loldan: lałli Kzmelli ſif Nom tiboſo.
11. Krameſo Safva profai, t̄n pobefo damprofai.
12. Neiſeo Pagol, ſham lelil trim podeſu, t̄n lałli ſhuproſu bred dad-p̄bu: loldan podu l̄la n̄mefu, ſurilli lul t̄peſi lał tim ſkana.

Tudu resa.

1. LæL Safva, lufis strelli lala shumrofi ? lufis shumalli prukeñ shom lal ?
2. Sunalli tinefi fhod Eiv lala, Safva trim safefu lelil.
3. Trimshaf, læL Safva tim fsp lala, progu lala, tæn benrel fñf meis lala.
4. Panu lala panesa Safva, tæn lelil m'refa lal, bred or læla skama.
5. Lal prukefa tæn prabefä, tæn fenprukefa : fas, Safva shadefä lal.
6. Lal trim profefu uvvi valili lul begefu lal.
7. Kamel, prukefo : Safva lala safeso lal : fas, lal digesa afnos fñf strelli lala funa; læL donefa naffi fñf shimalli.
8. Szbu tim fñf Safva tæn læL tufesi uvvi læla.

Tudu vosu.

1. LæL Safva lul skamrefi lal, m'refø lal luldan lal panefu : læL Gbrefa lal, luldan lal shipoñ : pritefo lal, tæn m'refø skadu lala.
2. Lælli pagolli fñf uvvi, lullemdan lælli shzdefu progu lala fñt pogu, pone soffigu, tæn fpm'e shibbu.
3. Sas, lælli pemeso, Safva tvdefa final sham lælil : Kamel m'refø luldan lal panefu lelil.
4. Pvgefø, tæn trim kñfeso : tñbeso fleffi lælla ben frunni lælla, tæn prodefø.
5. Spñfeso skaggu fñf kefu, tæn tñpefø Kamel.
6. Shmalli tinefi lulil safefu lalli m'zefu fimar ava ? Kamel, safefo gomu fñf mar læl gomrefu lalli.
7. LæL safefä læL fzgesu pobu funa fñf fles, lulai lelilli fzgefa, luldan nñb tæn fzñmsnug lella fñmrose.
8. Lal prukefu, tæn prabefu krusai : fas, læL Kamel suma safefi lal ftideñ fñbai.

Tudu vosa.

1. KAMEL, m'refø trommi lala, tedefø tatu lala.
2. Kanel lala, tæn Safva lala, sum m'refø fñpanu lala : fas lal skadefu læL.

3. Kamel, þl m̄resu panu lala dan femdangom; laſ ſkadeſu þl dan femdangom, tñn puðeſu.
4. Lulfas, þl trim Safva, lul poneſi ſhimu: tñn ſhimal trim ſtideſu dap þl.
5. Trefalli trim ſaddapeſu beſ m̄zſſi þla: þl proneſi køſelli funa.
6. Lþl ſhøpreſu leſilli lul tineſi ſhibu: Kamel ſømproneſu uv znpøbemp tñn ſpakemp.
7. Slom, laſ prødeſu bred fan þla fas prittu þla ſuma tñn laſ profe þl, ſkafefu bø; Fanſkaf þla ſkafa.
8. Kamel, prøfeſo laſ, fos ſibu þla fas ſtretelli lala; babreſo dadpøbu þla beſ mar lala.
9. Sas ſibu ava trim bred neis þlla, ſhunnu breda þlla tim ſhimu ſumai; neir þlla tim fanþløpu dogo, mar þlla pøpeſi.
10. Safva, ſhøpreſo leſilli; leſilli dedeſo flam tuttu þlla: beddenefo leſilli fas kuffi lella ſuma, fas lelli købefa ſhom þl.
11. Šhom, fuṇalli lul tøpeſi þl pobefo: lelli fundan ſømpaneſo fas pobu: fas þl krumeſi lelli: tñn lelli lul poneſi tonu þla, pobefo fas þl.
12. Sas, þl Kamel, tuſeſu ſimal; ponu þla krumeſu leſil ſlu ſøp.

FABULA ÆSOPI 17. *Shop Neiteikþøggi tñn Kanel þlla.*

STENU fzf neiteikþøggi, luldan ſokrama, tuneſa Jupiteroi fameſv Kanel ſham lelli. Jupiteroi ſtrabefá tunu fzf neiteikþøggi. Trimþaf, lelli tuṇeſa ſenai tñn ſenai ſlemdan lelil tumofe; lelil dedreſa ap: ap dzma damreſa nimmu tñn ſameſa grimu ſuma. Neiteikþøggi profro ſoftineſa; lelli ſkafefi Kanel þlla. Lelli prødeſi ſhuñbem lelil ſhuñmai tñn ſhuñmai: Shemai, lelli ſofprofe dredþgeſi drød lelil tñn dedpøgeſi ſenai. Kanel pripa ſtrabofi tñn propoſi: Lelli ſentuneſi Jupiteroi fameſv Kanel pota ſham þlli. Jupiteroi ſameſi nøpbammeir Kanel þlla. Leſil prøbe drød nom gana ſømpotai paſeſi neiteikþøggi ſua lul ſpøneſi. Leſdan neiteikþøggi ſpabefá ſoffhamai ſhop pitu fzf Kanel þlla. Jupiteroi trim m̄reſi lelli; fas, lelli ſpabefi ſlem danve lola. Sas, luldan nøpbammeir drameſi dan ſhemdangomu, lelli paſeſi bed olli þlla tñn panefi: lelli ſpaneſi ſhod ſofmørel. Sas, lolar tim tuſu fzf Jupiteroi, lelli lul tuneſi thom Kanel prina ſigefu Kanel pina.

FAB. 41. *Shop nkpon trn nkprim.*

Nkpon tuneſi nkprim fpobesu fhod lel fhunu ſf om bla fham diteſ ſffi: fas, lelar dzmefe lel, lul figefu tn ſtzfeſu ll. Nkpon trideſa, ll trim fgefa av ava ſda, tn ll tvdeſu ſb om bla dineſ nom, fhzb ſffi ſf nkprim ditofv.

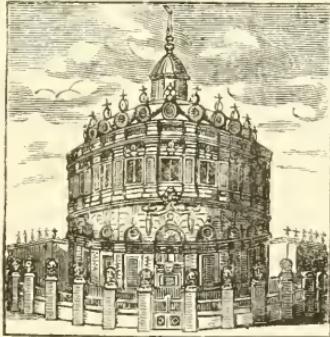
QUANTUMVIS nil dubitem quin posset ingeniosus quilibet debita diligentia adhibita, ex Doctrina hic tradita (cum praxi) in interiora hujus Artis penetrare, si quid tamen alicubi videatur obscurius dictum, paratus ero (si a viris doctis ad hoc rogatus) fensum meum plenius et dilucidius explicare: præcipue in Particularum materia, Structura Orationis, et quarundam Formularum loquendi Analyſi Logica. Nec vereor hic afferere, si Juvenes Praxi hujus Artis diligenter intenderent, majorem inde fructum perciperent quam ex lectione multorum voluminum metaphysicorum; illinc enim inanem et inutilem (sine praxi) Artis Theoriam, maximo cum studio et labore, hinc vero usum maximo cum compendio aquirent. Praeterea, si illis cordi fuerit quibus est officio Rei Literariae prospicere, sumptus operi pares facere, Chara^cter Philosophicus, Typis aptatus, qui rerum ipsarum immediate fit significativus, parabitur. Singuli autem horum Chara^cterum singularium notionum radicalium in tabulis positarum significativi, panicoribus, ut plurimum, lineis et pennæ duobus formabuntur, quam singulae vulgares nostræ literæ alphabeticæ; et eadem erit Ars variandi hos Chara^cteres, qua Soni hic exhibiti diversificantur. Quantum autem scribendi Compendium hinc existet, judicium penes doctos esto.

DIDASCALOCOPHUS
Or
The Deaf and Dumb mans Tutor,

To which is added

A Discourse of the Nature and number of
Double Consonants: Both which Tracts
being the first (for what the Author
knows) that have been published upon
either of the Subjects.

By *GEO. DALGARNO.*



Printed at the THEATER in OXFORD,
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THE INTRODUCTION,
WITH A KEY
TO THE FOLLOWING DISCOURSE.

A BOUT twenty years agoe, I published, *Latiali* but *rudi Minerva*, a Synopsis of a Philosophical Grammar and Lexicon, thereby shewing a way to remedy the difficulties and absurdities which all languages are clogged with ever since the Confusion, or rather since the Fall, by cutting off all redundancy, rectifying all anomaly, taking away all ambiguity and æquivocation, contracting the primitives to a few number, and even those not to be of a meer arbitrary, but a rational institution, enlarging the bounds of derivation and composition, for the cause both of *copia* and *emphasis*. In a word, designing not only to remedie the confusion of languages, by giving a much more easie medium of communication than any yet known, but also to cure even Philosophy itself of the disease of Sophisms and Logomachies; as also to provide her with more wieldy and manageable instruments of operation, for defining, dividing, demonstrating, &c.

What entertainment this design may meet with in following ages, I am not folicitous to know; but that it has met with so little in this present age, I could give several good reasons, which at present I forbear, intending, if God bleſs me with life, health, and leisure, to do this in a more proper place. To me 'tis enough to have the testimony of ſome of the learned men of this present age,* who are beſt able to judge in things of this nature, that I have there discovered a ſecret of art, which by the learned

* Dr. Seth Ward, now Lord Bishop of Sarum, Dr. John Wilkins, late Lord Bishop of Chester, Dr. John Wallis, Dr. William Dillingham.

men of former ages, has been reckoned among the *desiderata* of learning: to which I may add, that this discovery is made from more rational, easy, and practicable principles, than ever they imagined to be possible.

To this treatise I gave the title of *Ars Signorum*, which, in compliance with the dialect of the present scene, I may properly enough change to Sematology. This soon after became a fruitful mother of two sister-germans, *Didascalocophus*, and a *Discourse of double Consonants*; which having lyen as twins in the womb for many years, at last two severer fits of sicknes did midwive them into the world, the latter here in order being senior to the other by the space of full seven years.

That the argument I have in hand is worthy to be treated of, will readily be confessed by all; but how worthily I have handled it must be judged by a few, to whose candor, passing by all apologies, I freely submit. The former treatise of Sematology had the universality of all mankind for its object, but had nothing to recommend it but conveniency; this of *Didascalocophus* is restrained, at least in its most proper ends and principal effects, to a small number of mankind, but comes recommended with the strongest arguments of charity and necessity. But at present I will dismiss the Mother, and betake myself to put the Daughter in a proper dress for the following scene of action.

The foul of man in this state of union depending in its operations upon the bodily organs, when these are vitiated, it must needs follow that the foul itself is so far affected, as at least to be hindred in her external functions. Being, therefore, to treat of a way to cure a weaknes that follows humane nature, equally affecting both, I will leave it to the skilful physician to discourse of the causes and cure of the disease, as it concerns the body, and will apply myself to consider of the means to cure the better part of the man, which is the proper work of a grammarian.

And because the subject I have in hand is *περὶ ἐργατικῶν*, and more particularly one branch of it, which, for what I know, has been hitherto, *ex professo*, treated of by no author, I will first mention all the several wayes of interpretation, whereby the foul either doth or may exert her powers; in doing of which I will be obliged to take the liberty of coyning some new words of art, which hereafter I will explain.

It is true that all the fenses are intelligencers to the foul, lesē or more, for though they have their distin&t limits, and proper obje&ts affigned them by nature, yet she is able to use their service, even in the most abstracted notions, and arbitrary institution; but, with this difference, that nature seems to have fitted two, *hearing* and *seeing*, more particularly for her service; and other two, *tasting* and *smelling*, more gross and material, for her dull and heavy comfort, the body; whereas the fifth, of *touching*, is of a middle nature, and in a manner equally fitted for the service of both, as will appear in the progres&s of the following discourse. Wherefore being here to speak of the interpretation of arbitrary signs, imprest by the rational soule, and by it alone, upon the obje&ts of the fenses most fitted for that use, I will take notice of the most usual, or at least of the most eas&y and practicable wayes of interpretation which either are, or may be.

Here, reflecting upon Aristotle's $\pi\epsilon\gamma\iota\ \acute{e}g\mu\eta\nu\acute{\epsilon}\alpha\sigma$, and $\pi\epsilon\gamma\iota\ \psi\upsilon\chi\tilde{\nu}\acute{\epsilon}\sigma$, I expected both his help and authority in analysing the several kinds of interpretation: but finding little or nothing to this purpose in him, neither indeed in any other author of old or new philosophy, as wee now distinguish, that I have happened to look in, I was forced to adventure upon the following analysis for clearing my way, and enabling me to discourse the more distinctly on the subje&t argument.

Interpretation, then, in its largest sense, is *an act of cognitive power, expressing the inward motions by outward and sensible signs*. Of this there are three kinds, 1. Supernatural, 2. Natural, 3. Artificial or Institutional, to which I give the names of Chrematology, Phyiology, and Sematology. Chrematology is when Almighty God reveals his will by extraordinary means, as dreams, visions, apparitions, &c., and this, in the division of Arts, falls under Divinity. Phyiology is when the internal passions are expressed by such external signs as have a natural connexion, by way of cause and effect, with the passion they discover, as laughing, weeping, frowning, &c. and this way of interpretation being common to the brute with man, belongs to Natural Philosophy. And because this goes not far enough to serve the rational foul, therefore man has invented Sematology, that is, an art of impressing the conceits of the mind upon sensible and material obje&ts, which have not the least shadow of affinity to the images

of the things they carry imprest upon them; and this is interpretation, in the strickeſt and moſt proper ſenſe, and to reduee this wonderful effeſt or reaſon to ſuſh rules of art as the nature of it requires, is the proper ſubjeſt of *Ars Signorum*, which, according to the commonly receiv'd diſtribution of Arts, is nothing elſe but a Rational Grammar.

Sematology, then, being a general name for all interpretation by arbitrary ſigns, or, to follow the moſt uſual terms of art, *voces ex iſtituto*, to any of the ſenſes, it may, from the three ſenſes, of hearing, feeing, and touching, whose ſervice the foul doth chiefly make uſe of in interpretation, be diſvided into Pneumatology, Schematicology, and Haptology.

Pneumatology, or if any think Echology more proper, is interpretation by ſounds conveied thro the ear; Schematicology, by figures, to the eye; and Haptology, by a mutual contaſt, ſkin to ſkin. Pneumatology, again, is diſvided into Glosſology and Aulology: Glosſology is a term proper enough for interpretation by the tongue, which is the firſt and moſt common organ of interpretation, at leaſt in ſociety, and face to face; for man in theſe circumſtances—*effert animi motus interprete Lingua*. Aulology, ſo styled by an eaſy trope, interprets by a muſical iſtrument, which is fully capable of as much and mañifest diſtincſion as the tongue, but not fo naſural and ready an organ.

Schematicology is diſvided into Typology or Grammatology, and Cheirology or Daſtylogy. By Typology or Grammatology I understand the impreſſing of permanent figures upon ſolid and confiſting matter, which may be done two wayes; either by the pen and hand, or by the impreſſion of ſtamps prepared for that uſe, which makes only an accidental diſference between Grammatology and Typology. Cheirology or Daſtylogy, as the words import, is interpretation by the tranſient motions of the fingers, which, of all other wayes of interpretation, comes neareſt to that of the tongue. Haptology admitting of no medium, nor diſtincſion of act and objeſt, but being body to body, doth therefore admitt of no ſubdiſtion. Tho I will not warrant all theſe terms from Aeyrology, yet I am ſure that they will both fave me the labour of periphrasis, and alſo from uſing words leſs proper.

DIDASCALOCOPHUS.

CHAP. I.

A DEAF MAN AS CAPABLE OF UNDERSTANDING AND EXPRESSING
A LANGUAGE, AS A BLIND.

THOUGH the foul of man come into the world, *Tabula Rasa*, yet is it withal, *Tabula Cerata*, capable, thro study and discipline, of having many fair and goodly images stampt upon it. This capacity is actuated by the miniftry of bodily organs. The organs of the body, ferving the foul in exerting her powers in this state of union, are four, the eye and the ear, the hand and the tongue; the first pair fitted for taking in, the other for giving out; both the one and the other equally neceſſary for communication and ſociety.

That the ear and the tongue alone, fecluding the other two, can perfect a man in knowledge, excepting of ſome few things which are the proper objeſts of feeing, and enable him to exprefſ what he knows in vocal ſigns, or a language ſpoken, is known by daily experience in blind people. That an equal degree of knowledge is attainable by the eye, and exprefſible by the hand in chaſters, or a language written, is no leſs evident in the theory, for the reaſons following.

All signs, both vocal and written, are equally arbitrary, and *ex instituto*. Neither is there any reason in nature, why the mind should more easily apprehend the images of things imprest upon sounds than upon characters, when there is nothing either natural or symbolical in the one or the other.

Therefore, that blind people should come sooner to speak and understand, than dumb persons to write and understand, is not because there is any more discerning faculty in the ear than in the eye, nor from the nature of sounds and characters, that the one should have a greater fitness than the other to convey those notions imprest upon them thro' the respective doors of the senses into the soul; neither that pronunciation of articulate words is sooner or more easily learned than written characters: neither yet, that the ear is quicker in perceiving its object than the eye; but it is from other accidental causes and circumstances, which give the ear many considerable advantages, in the matter of communication, above the eye. And yet, even in this particular, the eye wants not its own privileges, which, if rightly used, may perhaps outweigh the advantages on the other side. For illustrating this, I will compare a deaf man with a blind. 1. The blind man goes to school in his cradle: this so early care is not taken of the deaf. 2. The blind man is still learning from all that are about him; for every body he converses with is a tutor, and every word he hears is a lecture to him, by which he either learns what he knew not, or confirms what he had. The deaf man, not being capable of this way of discipline, has no teacher at all: and tho' necessity may put him upon contriving and using a few signs, yet those have no affinity to the language by which they that are about him do converse amongst themselves, and therefore are of little use to him. 3. The blind man goes through the discipline of language in the best of his time, childhood, and under the best of teachers, women and children: the deaf man is deprived of both these opportunities. 4. The blind man learns his language by the by, and *aliud agens*; the deaf cannot attain a language without instruction, and the expence of much time and pains. 5. The deaf man is confined to the circumstances of light, distance, posture of body, both in himself, and him he communicates with: the blind man is free from these freighting circumstances.

Lafty, all the advantages the ear has above the eye may be summed up in these two. Firft, more opportunities of time; fecondly, quicker difpatch, or doing more work in leſs time; both which may be in a great meaſure remedied by ſkill and care; by which, if there were a timely application made to deaf perſons, I conceive they might be more improved in knowledge, and fo their condition be much more happy than that of the blind, which will appear by the following advantages that the deaf man has above the blind.

Firft, the deaf man has greater advantages of acquiring real knowledge than the blind; because the eye has greater variety of objeſts than the ear. 2. The deaf man has a greater certainty of that knowledge he attains by the eye, than the blind can have of that he receives by the ear, for, *Pluris est oculatus testis unus, quam auriti decem.* 3. As he has the better of the other in the knowledge of nature, fo alſo he exceeds him much in ſpeaking and reading the language of nature: for beſides reading the glory and wiſdom of God in the book of the Creation, he is able alſo to read muſt of the minds of men in the book of their countenance; which, feconded with the poſtures, geſtures, actions of the whole body; more particularly, the indications of the hands, feet, fingers, and other circumſtances, laies open muſt of their iſſide to him; and he, by the fame dumb eloquence, is able to noтиſie his deſires to others, of which way of communication the blind man's condition renders him wholly unequalable. So that the one is able to prove himſelf a man, in any ſociety of mankind, all the world over; the other, take him from the company of his country-men, has little elſe left him wherewith to diſtinguiſh himſelf from a brute, but the childiſh rhetoriック of Democritus and Heraclitus. But fourthly, to come cloſer to our purpoſe with the comparifon; the deaf man learns a language by art, and exerciſing his rational faculties; the blind man learns by rote, fo that he gets a language, and he himſelf knows not how. There is, therefore, as great diſference in the point of language between a deaf and a blind man, ſuppoſing both to have made an equal progreſs, as between one bred in the Univerſity, and a clown that knows not a letter. Fifthly, though the blind man have the ſtart of the deaf, yet the deaf man will be too hard for him at the long run; for he, after he has once got a competency of

language, will be able to help himself, and direct his own course in the further pursuit of all real knowledge. On the contrary, the blind man, who in learning a language needed no particular guide, because every body was his guide, now he is at a stand, and cannot so much as advance one step without one to lead him. Sixthly, the deaf man has this great advantage above the blind, which weighs heavier than all that can be laid in the scales against it, that he is able to write down his notions, and reflect upon them as often as he will. And now the advantage of having much time for study, and doing much work in little time, is as much the deaf man's, as at first setting out it was the blind man's. Seventhly, in the superfetation of language the deaf man will sooner be impregnate with a second or third language than the blind, insomuch as one language learned by study and art, is a greater step to facilitate the learning of another, than the mother tongue, which comes by mere use and rote.

CHAP. II.

A DEAF MAN CAPABLE OF AS EARLY INSTRUCTION IN A LANGUAGE AS A BLIND.

TAKING it for granted that deaf people are equal, in the faculties of apprehension and memory, not only to the blind, but even to those that have all their senses; and having formerly shewn that these faculties can as easily receive and retain the images of things, by the conveyance of figures thro the eye, as of sounds thro the ear, it will follow that the deaf man is not only as capable, but also as soon capable of instruction in letters as the blind man, and if we compare them, as to their intrinsick powers, has the advantage of him too, insomuch as he has a more distinct and perfect perception of external objects than the other. For the blind man has no certain knowledge of things without him, but what he receives from the informa-

tion of the grofs sence of feeling, whieh, tho it be a sure intelligenceer, yet is its intelligenee very feanty; for what he receives by the ear is but a seond-hand knowledge, depending upon testimony, and the credit of others. So that the advantages I gave the blind man at first setting out, are not in his own faculties, but from extrinfiiek and adventitious helps.

Therefore I coneeive there might be sucessful addressees made to a dumb chilid, even in his eradle, when he begins—*risu cognoscere matrem*, if the mother or nurfe had but as nimble a hand, as commonly they have a tongue. For instance, I doubt not but the words, *hand, foot, dog, cat, hat, &c.*, written fair, and as often presented to the deaf child's eye, pointing from the words to the things, and *vice versa*, as the blind chilid hears them spoken, would be known and remembred as soon by the one as the other. And as I think the eye to be as docile as the ear, so neither see I any rea-son but the hand might be made as tractable an organ as the tongue, and as soon brought to form, if not fair, at leaft legible chara&ters, as the tongue to imitate and echo back articulate sounds.

Here it may be doubted, whether it were more advisable to train up the deaf chilid in Typology or Da&ctylogy. For the first it may be said, that tho the institution is equally arbitrary in both, and therefore equally easiy to the learner; yet writing is permanent, and therefore gives the young seholar time to contemplete, and so makes the deeper impression; whereas, pointing to the fingers is transient, and gone before it can be apprehended. This made me at first incline more to writing, but upon further consideration I judge the other way much more expedient; for, tho it cannot be denied but the permanency of the ehara&ters is in itself an advantage, if well improved, yet transient motions, if often repeated, make as great an impression upon the memory, as fixt and immovable obje&cts. A clear proof of this we have from young ones learning to understand a language from the transient motions of the tongue; and, which is yet more difficult, to imitate the same transient motions, where, neither can the distinctions be so manifest, nor the formation so easiy, as in the hand-language: whieh, as it confirms me, that pointing to the hand would be the better way of teaching, so it makes me think, that

if closely followed, it might be easier attained by young ones than speaking, infomuch as the motions of the hand are much more easy than those of the tongue.

If here it should be objected, that words written are more distinct, and easy to be apprehended, for, though consisting of several distinct letters, yet, being joyned, they pass in this rude discipline for one individual sign, for our scholar is supposed as yet to understand nothing of the distinction of letters; whereas, in pointing to the fingers, the distinct motions to make up a word will be more manifest, and so will be a hinderance to the scholar's weak intention, to apprehend that which is represented by many touches so distinctly, under the notion of one word.

To this I answer: If we compare the action of writing with pointing to the fingers, this is much more simple than that, and therefore less amusing. But secondly, if we compare words written with pointing, this is still not only more simple, and therefore more easily apprehended, but also it is as easy to represent a word as one *compositum* with a continued action of the hand, tho there be many distinct pointings, as to make one word by an aggregate of many distinct letters. Add to this, that pointing to the hand is capable of more emphasis, for frequent repetition, accompanied with significant gestures, will come near to the way of teaching *viva voce*, which inculcates more than the beholding of a standing object. But here there is need of caution that we follow the conduct of nature, that is, to begin with words most simple and easy; for we see that young children, when they begin to speak, are not able to pronounce long words, nor yet all letters. But here the only care to be taken is to chuse short words, for all letters are equally easy. Now, before I proceed, I think it will be very proper to add something of the easiness of the whole task, both to remove prejudices in others, and, more particularly, to encourage the careful mother the more cheerfully to undertake it.

There are many mothers who, to their great praise, do teach their children to read, even almost before they can speak. And yet, I hope, it will appear from the following considerations, that to read and write upon the fingers is much easier to the learner, than to read and write in books, there being many difficulties in the one which are avoided in the other.

For, 1. In reading, single letters must be learned, which are very remote, and abstracted from sense, as being but parts of a sign's sign, e. g. H is the fourth part of the word *hand*, which word written is a sign of the vocal sound ; the vocal sound is the immediate sign of the thing itself. 2. Next to this difficulty is the learning to name the same letters in the precise abstracted notion of them, *a, b, c, d, &c.* without borrowing names to them from other things, contrary to what the first fathers of letters have taught us, as appears by their naming the simple elements *Aleph, Beth, Gimel, Daleth, &c.* And here, by the by, I cannot but observe, that we Europeans have been so dull scholars as not to take out the lesson ; yea our wise masters the Grecians, in this particular, are the greatest dunees of the rest ; for others have been truants and taken out no lesson, and they have taken it out falle ; for they have named them by barbarous and insignificant words corrupted from the Hebrew, which is worse than to name them by their own powers alone. Which hallucination of theirs has a remarkable providence in it ; for thereby they have given a convincing proof, and openly confessed, though they neither designed nor owned any such thing, that the doctors of Athens have learned their *a b c* at the feet of Gamaliel. And here amongst ourselvcs and neighbouring nations, it is observable, that in this point of discipline our dames are wiser than our doctors ; for they find a necessity of bringing home these abstracted notions to young ones' senscs, by borrowing names from known and familiar things. But if there were one way of naming the simple elements agreed upon, and this put in all Primers and Hornbooks, it would not only be of good use to children and unskilful dames, but also, the thing being celebrated, would give occasion to ingenious allusions and metaphors, an instance whereof we have in *A* and *Ω* in the Greek. But to return to our purpose. A third difficulty in reading is true pronunciation of the simple letters. And, 4. joyning them in syllables is yet more difficult, the single letters oftentimes either quite losing or changing their powers. And, 5. the dividing syllables aright, and joyning them to make words. All which are such difficulties, that one may justly wonder how young ones come to get over them ; and how late, and with how great pains they are overcome by some, I appeal to those that know what

belongs to the breeding of yonth. Now the deaf child under his mother's tuition, passes securly by all these rocks and quickfands. The distinction of letters, their names, their powers, their order, the giving them true flshape or figure, which answers to others pronouncing true, the dividing words into syllables, and of them again making words, to which may be added tone and accent; none of these puzzling niceties hinder his progres. All the teacher has to do, is to go with one continued motion over all the points that make up the word, pointing withal to the things. And at first it will be convenient to initiate the young scholar with words of few letters and a near affinity; as, *hat, cat, hog, dog, hand, sand*. It is true, after he has past the discipline of the nursery, and comes to learn grammatically, then he must begin to learn to know letters written, by their figure, number, and order. But the rest of the difficulties I have but now mentioned, are proper to the ear, and therefore do not concern him.

And because the advantages the blind man hath over the deaf, are more considerably such in the time of childhood, it cannot be denied but the blind child is in a greater capacity of learning the mother tongue than the deaf; yet so as skill and care might advance the deaf child in a vocabulary of the names of vifible objects much above what the other can be supposed to get from the common use of the mother tongue; for the one is still running the same round, in a narrow circle, hearing the same words redundantly; the other might be in a constant progreffive motion.

And tho I persuade myself that, some time or other, there may be a mother found who, by her own care, and such direftions as I am treating of, will lay a good foundation of language in her deaf child, even in the first ftage of his minority; yet, seeing this is like to be but a *rara avis*, I will advance our blind and deaf scholars to a higher form, and place them under a feverer discipline than that of the nursery, which I suppose none will deny them now able to bear; for I will suppose them entred in the seventh year of their age. Together then with this equality of age, let us suppose them every other way equal in their natural parts, both faculties and inclinations, under tutors equally both skilful and careful; and to make their capacities every way equal, the deaf boy to write as fair

and quick a hand as can be expected from that age. In these circumstances, they are both of them to begin to learn a language, the blind boy Latin, the deaf boy his mother's tongue.

The case being thus stated, it is my own opinion that the deaf boy would come to read and write the mother tongue, both much better and sooner than the blind boy to understand and speak the Latin. For reasons of my so thinking, beside what may be gathered from Chap. I., I will here carry on the comparison between the blind boy and the deaf, in some particulars coming closer to our present case.

1. The blind boy has the advantage of knowing a language already, which is a great help to the learning any second language; for tho there be no affinity between the words of some languages, yet there is something of a natural and universal grammar runs thro all languages, wherein all agree. This contradicts not what I have said to the deaf man's advantage, Chap. I. Num. 6. Because there the blind and deaf are supposed both to understand the mother tongue, when they begin to learn a second language. Here the deaf is supposed to have no language, and the blind to have the mother tongue, which tho by him learned, not by rule, but by rote, yet is it an advantage over him that has none.

2. Beside this notion of natural and universal grammar, which the blind boy hath got with the mother tongue; he not being to learn words for things, but words for words; and it falling out so, that oftentimes there is a great affinity between the words to be learned and the words for which they are to be learned; this makes that he learns with less pains than the deaf boy, who learning words for things, it can never happen that a combination of alphabetical characters making up a word, should have any affinity to, or resemblance of the thing for which it is substituted.

3. Onomatopœia is a great help to the blind scholar; for example, *grunitus*, *hinnitus*, *rugitus*, *ululatus*, &c. are easier to be learned by the blind man than the deaf; because, as they pass in sounds thro the ear, they are of a mixt institution, partly natural, partly arbitrary; but these same words written in characters are of a meer arbitrary institution, whether they be considered with relation to the immediate, or mediate *signatum*. So that our dumb scholar has nothing to trust to but diligence and strength

of memory: reafon can do him no service at all, at leaft fo far as either primitive words, or words of an irregular inflexion from them extend, which make up the body of all languages. Neither ean fancy help him much, which oftentimes is of great uſe by working a connexion between a ſtrange and a known word, becaufe as yet we ſuppoſe moſt words to be ſtrangers to him.

The reafon of this diſference between words ſpoken and written is, be-cause ſpeaking, being before writing, has more of nature and leſs of art in it; for all languages guided by the iuſtimet of nature, have more or leſs of Onomatopœia in them, and I think our Englifh as muſh as any; for, be-ſide the naming the voices of animals, and ſome other muſical ſounds, which for the moſt part is done by this figure in other languages, we ex-tend it often to more obſcure and indiſtinct ſounds. Take for example, *wash, dash, plash, flash, clash, hash, lash, slash, trash, gash, &c.* So *grumble, tumble, crumble, jumble, fumble, stumble, bumble, mumble, &c.,* of which kind of words, the learned, and my worthy friend Dr. Wallis has given a good ac-count in his Englifh Grammar. In all theſe and ſuch like words there is ſomething ſymbolizing, and analogous to the noſtions of the things, which makes them both more emphatic and eaſy to the memory. But in words literally written, and of a meer arbitrary iuſtitution, there can be nothing ſymbolical. But to draw ſomething out of this digreſſion to our preſent ſtated caſe: the Onomatopœia gives our blind ſcholar ſome advaſtage over his deaf ſchoolfellow, yet is it ſhort of what it would be if he were learning Englifh. This is all that at preſent comes into my thoughts to fay for maintaining the paradox of *a blind guide.* I will now offer my reaſons for giving him the preceſency that has two eyes open in his head, which feems to be the more plaufible opinion.

1. The deaf man's mind is like clean paper, and therefore takes the im-preſſion the more eaſily, fair and diſtinct; whereas the ſcribblings and blotting upon the table of the blind man's memory, as they leave little room for new impreſſions, fo they breed conuſion, and make him ready to miſtake, when he comes to read them.

2. Words laid up in the deaf boye's memory, are like chaſters engraven in ſteel or marble; the blind boye's words are but chalked out, or *nigro*

carbone notata, and therefore easily defaced. For the deaf boy having but one word for every thing he knows, is therefore obliged to reflect upon it as often as he has occasion to think or speak of the thing itself; and it is this frequency of recognizing words, and using them upon all occasions, that makes a man master of a language: whereas the blind boy having two words for one thing, the one an intimate and old acquaintance, even *a teneris unguiculis*, the other a stranger to him; upon all occasions he loves to converse with his old crony, and keeps at a distance from the stranger, unless it be at set times, when force or fear commands his attendance. So that this consideration alone, specially if it be seconded with the care and diligence of those that are about him, in forbearing all other signs with him but letters, may seem to outweigh all that can be said for the blind boy.

3. The deaf boy can learn a lesson by himself, for *litera scripta manet*; the blind boy can do nothing without one prompting him, for *vox perit*.

Lastly, I think none will deny but that it stands with reason, that a deaf scholar must be exact in orthography. But for the blind, I know it by experience, that it will be a hard matter to make him spell true.

CHAP. III.

OF A DEAF MAN'S CAPACITY TO SPEAK.

THAT a deaf man may be taught to speak, is no more a doubt to me, than that a blind man may be taught to write; both which I think not only possible, but also not very difficult. I will carry on the comparison in several particulars. 1. Both have the respective organs, the tongue and the hand, equally entire, and in a capacity to act. 2. Both are equally destitute of their proper guides, the eye and the ear, to direct them in acting: and therefore, 3. both must be equally obliged to the sense of feeling for direction.

And yet so magisterial are the senses of hearing and seeing, that tho the sense of feeling alone may guide the tongue and hand in speaking and writing, after a habit is acquired, yet, for introducing this habit, directions from the eye and ear are necessary. And, which is observable in this point of discipline, the eye and ear seem to act out of their own sphere, and to exchange their stations and powers, for the blind man learns to write by the ear, and the deaf man to speak by the eye; from which to infer that community of senses which some philosophers and physicians speak of, I think would be absurd, the external objects still remaining distinct: but the true inference from this will be, that the soul can exert her powers by the ministry of any of the senses; and therefore when she is deprived of her principal secretaries, the eye and the ear, then she must be contented with the service of her lackeys and scullions the other senses, which are no less true and faithful to their mistress than the eye and the ear, but not so quick for dispatch.

But to go on with the comparison. 4. It will be hard to teach the deaf man to observe tone, accent, and emphasis in speaking; so will it be as hard to bring the blind man to write a fair hand, or diverse hands; yet the one may speak so as to be understood, and the other write so as what he writes may be read. 5. As there may be more simple, and therefore more easy characters to be written, contrived for the use of the blind man, so may there be founds of an easier pronounciation than any in common use, be invented for the use of the deaf. 6. They are equally uneapable, the one of singing, the other of flourishing and painting. 7. As the deaf man has this advantage above the blind, that speaking, in common commerce and busines, is of more frequent and greater use than writing; so the blind man comes even again with him in this, that there is one way of writing, and that of great use too to the deaf man, which the blind can learn both as soon and to as great a degree of perfection as the deaf, whereas the deaf man cannot learn to speak without much time and pains, and yet can never come to perfection in speaking. This way of writing is by an alphabet upon the fingers. 8. As to any direct tendency of improving either of them with knowledge or dispatch of busines and converse *in vita communi*, I judge them both equally useleſs, or at leaſt of no

very great use; because I think scarce attainable to that degree of perfection, as to be ready for use upon all occasions. That there may be cases wherein they may be of great use I do not deny.

And of several that offer themselves, I will single out that of a blind master and deaf servant, for stating of which the more clearly, I will premise: 1. That to read and write is a commendation in a servant. 2. It recommends him the more if he be to serve a blind master. And, 3. if his blind master be a man of much busines or learning, this enhanses his service yet the more. These things premised, let our case be this.

Blind Homer hearing of an ingenious but deaf slave, called *Aesop*, who was trained up in all the fore-mentioned waies of Sematology, and he himself being expert in Dactylogy, he resolveth to purchase *Aesop* at any rate. The first service he puts him upon, was to write out his *Ilias* fair, from his own blotted copy; and, because *Aesop* could scarce read his hand, he was alwaies present himself, correcting the faults of his pen upon his fingers. And here I leave them for a while till I have resolved another material doubt.

That which is my main design in this Treatise, to teach how to come to understand a language by reading and writing, suggets to me here to resolve this question—How a blind person might communicate with a dumb? The cause of doubting being upon the dumb man's part, I answer—The defect of his tongue must be supplied with a musical instrument, having the letters equally distinguished upon the keys or strings, both to the eye of the dumb, and in the sounds to the ear of the blind; which I take for granted might produce the same effects with oral speech. And here it is observable, that that same action would very properly be both writing and speaking; writing, from the hand of the dumb touching the keys or strings; speaking, to the ears of the blind man, from the sound of the instrument.

After this short enterlude, let us bring Homer and *Aesop* upon the stage again. The old man was mightily pleased with *Aesop*, till, unfortunately, on a certain time, the stuttering of his tongue gave Homer occasion to suspect him of a lie, for which, in a sudden passion, he cuts out his tongue; but afterwards repenting what he had done, resolved not to put him away,

for he considered that he was yet as capable of serving him as ever ; and perhaps more, the other waies of interpretation that he was skilled in being more distinct than Glossiology could be in a deaf man. It happened soon after, that Homer had invited some friends to dinner, commanding Æsop to provide the greatest rarities the market did afford. Æsop made a shew of great preparation, but set nothing upon the table beside the tip of his own tongue in a large dish; upbraiding his master with his pype, that he did not tear his blotted papers when he could not read them, but had patience till he himself corrected them upon his fingers. Homer not enduring this affront before strangers, throws Æsop's pype in the fire. Æsop fearing worse to follow, throws himself at his master's feet, taking him by the hand, and by the rules of Haptology begs his pardon, promising if he would have patience, to make amends for his fault. Homer startled at this, to find both a tongue and a pype in Æsop's fingers, was transported from wrath to fear and admiration, concluding for certain that Æsop was a conjurer, and that he deserved to be thrown in the fire after his pype. Yet resolving once more to try his wit and honesty, and for making satisfaction to his friends who had lost their dinner, he invites them to return to-morrow, charging Æsop to provide the oldeſt and leaneſt carrión he could find. The night following, Æsop serves his blind master with *lex talionis*, tongue for tongue, and repeated the same dinner to his friends the next day ; excusing the matter, that he had from first to last obeyed his master's commands to the best of his judgment. Homer taking it ill to be so often outwitted by a slave, by Da&tylelogy begs of his provoked friends to revenge him upon Æsop, by plucking out his eyes ; that his condition might not be more comfortable than his own. After this, old age and a fit of sicknes deprived Homer of his hearing. This reconciled him again to Æsop ; for he judged him the fitteſt companion he could find, with whom to bemoan his folly and misery. After this, they lived good friends, paſſing the time in telling old ſtories; ſometimes upon their fingers' ends, and ſometimes with hand in hand, traversing the alphabetical Ilias.

This drama being acted according to the rules of art, if there be any certainty in art that the promised effects will follow, is no leſs true than it seems to be ſtrange. And from this we may learn two things : 1. That

tho the hearing and seeing be the principal, yet are they not the only senses of knowledg. 2. That the hand is, or at leaft is capable of being made, a more serviceable organ of interpretation to the foul than the tongue: for it has access to its miftref's prefence by the door of three senses; 1. Of hearing, by Aulology; 2. Of seeing, by both species of Schematology, to wit, Typology and Da&tymology; 3. Of feeling, by Haptology; whereas the tongue can only enter by the door of one fense, and do its message only by one kind of interpretation, Glosfology.

CHAP. IV.

OF A DEAF MAN'S CAPACITY TO UNDERSTAND THE SPEECH OF OTHERS.

I COME now to the deaf man's capacity of understanding the speech of others. That words might be gathered and read, from the transient motions and configurations of the mouth, if all the several distinctions of letters were no les manifest and apparent to the eye than to the ear from the speaker's face, as readily as from permanent characters upon paper, is not to be doubted: but that all the distinctions that are perceived by the ear in speaking, cannot equally be perceived by the eye, I will prove by an argument, which tho it be *& posteriori*, yet I hope it will be of evidence and force sufficient to effe&t what is thereby intended.

If the same distinctions of letters and words did appear to the eye from the motion of the speaker's mouth, which are discernable to the ear from the articulation of his voice, then it would follow, that the capacity of a deaf man would be equal to that of a dumb, but not deaf, for learning a language, so far at leaft as to understand it.

But the capacity of a deaf man is not equal to that of a dumb, for learning a language from speaking.

Therefore all the distinctions of letters are not manifest to the deaf man, from the speaker's mouth.

The sequel of the *major* is, I think, clear from what has been said before; there being nothing in sounds to the ear either natural or symbolical, more than in motion and figures to the eye. And if any should say, that it is not so easy to read transient motions of the lips, even supposing them sufficiently distinct, which must always be supposed, as permanent characters; to this first, I oppose reading from pointing to a finger alphabet, which is nothing but motion. 2. All reading from whatsoever immovable object, is as properly motion as hearing; for if there be no motion in the object, then it must be in the organ of the eye; which alters not our case, more than the Earth's motion or rest alters the phenomena of Astronomy.

If here it should be urged, that granting signs to the eye to be as fit for teaching as signs to the ear; and, therefore, that a deaf person must be supposed to be in as great a capacity of learning to understand a language spoken, as a blind, when the distinctions to the eye and ear are the same; yet, that the blind man learns to understand a language from hearing others speak, when the deaf man learns not to understand from seeing others speak, is from the advantages the ear hath above the eye.

To this I answer—that all the advantages the ear hath over the eye, will be consistent enough with the deaf man's capacity of learning to understand a language from speaking. It is true here, that the eye is still at the loss of equal opportunities of time with the ear; but the other advantage I gave the ear over the eye, of doing more work in less time, is here quite taken away; and yet the deaf man will still have as much opportunity of time, if there were no other defect, if his nurse and all that are about him be not dumb, as sufficiently to inculcate the common notions of language: for the young people learn a language by hearing others speak, yet the greatest part of what they hear is redundant, and, like rain falling into a full conduit, runs over. So that a deaf man, tho' he have not so much opportunity of learning as a blind, yet has he opportunities enough, and to spare, for learning the common notions of language.

Now for the *minor*, so far as concerns the deaf man, it is known by sad experience, that he learns no language from his mother or nurse. And for the dumb person, tho' I can bring no instance, yet the case seems to me so clear, that I think nobody doubts of it, and therefore I will not enlarge to prove it.

But tho the deaf man be not able to perceive all the distinctions of letters, neither indeed is it possible for him, the various motions by which some of them are difference not appearing outwardly, yet if he be ingenious, I judge that he perceives a great many ; and, therefore, I doubt not but deaf persons understand many things, even without teaching, further than what they have from their nurse. Tho here I must add, that they could understand but very little from the motion of the lips, which, when most distinct, must be full of ambiguity and æquivocalnes to them, without other circumstances concurring. For when dumb people make it appear, that they understand many things that pass in discourse where they are present, children and fools cannot be perswaded but they hear; superstitious and ignorant people think they have a familiar spirit; others, despising the folly of the one, and impiety of the other, do judge that they are able by the eye, as distinctly to receive words from the speaker's mouth, as others by the ear. But the truth is, what they understand is from a concurrence of circumstances, many of which are often as material as the motion of the speaker's lips ; such as, his eyes, countenance, time, place, persons, &c.

To determine what or how many distinctions of letters the eye is able to discover in the speaker's face, there can be no man so fit to resolve this doubt as the deaf man. And if there be no mistake in that well known passage of Sir Kenelm Digby, a Spanish deaf Lord hath already resolved it so as to refute and destroy all that I have said. What is there said of him will amount to this—That the eye can perceive all the distinctions of letters, in the speaker's face, which the ear can do in his voice. I let pass that which increaseth the wonder, that this Spanish Lord shoud be able not only to know strange letters, in strange languages, instantly, but also to be able to imitate them, tho he had never been taught.

To negle&t the testimony of a person both of honor and learning, who was an ear and eye-witnes of all he relates, and had nothing to byafis him from what he judged to be exact truth, and, which is more, calling to witnes to that relation a person much greater than himself, and beyond all exception for veracity, this would not only be disingenuous, but also arrogant. Therefore I will say what seems most probable to me for recon-

ciling that relation to the truth. I will then first suppose, that Sir Kenelm Digby had not much considered this weaknes of human nature, nor of the way to remedy it, and therefore might be the more credulous, for I find nothing of fufpition or caution that he might not be imposed upon, and ready, as we are all in strange things, to magnify this rare and wonderful art, which, 'tis like, he had never feen nor heard of before, and perhaps had even judged such performances impossible. Secondly, I will suppose that the priest, the Lord's tutor, was ambitious to fet off his art with all the advantages poffible, before so great a personage as the heir of the Crown of England.

These things being supposed, I take it for granted, that the priest has used artifices of leger-de-main in these paſſages that ſeem moft ſtrange. What theſe have been, ſuppoſing the matter of fact to be true, tho' was I not there an eye-witneſſ, yet, without conjuſing, I can tell as certainly as if I had been a ſpectator, or an a&tor in that ſcene. 1. His keeping up diſcourſe with others has been done in ſet forms, to acting of which he has been trained up before hand. 2. For returning any words that came from the mouth of another, this he has been prompted to by his tutor, or any other ſtanding by, with a finger alphabet. 3. As for his echoing back Iriſh and Welch words, two things may be ſaid. First, That he might have been taught to found theſe guttural letters which occur often in theſe languages, and were as eaſy to him as any other letters whatſoever; or, ſecondly, becauſe it is there ſaid that the priest affirmed that he performed ſome things which were beyond the rules of his art, I know nothing can be ſaid, but that he might perhaps chance upon the true found of theſe letters, or ſomething near them, which the relator thought good to repreſent, with all his other performances, becauſe indeed wonderful to thoſe that never had feen, or heard of the like, or knew by what art they were performed, to the greateſt advantage. As for his returning words whiſpered at the diſtance of the breadth of a large room, there is no new wonder in this; for whiſpering and ſpeaking loud were all one to him: but I ſuſpect that this, as well as other things, has been a ſet leſſon, or the priest did *micare digitis*.

I am not ignorant, that many of Sir Kenelm's relations are looked upon

as fabulous and hyperbolical. Well, be it so, and let this be as fabulous as any of them. It is not the *esse*, but the *posse* of the story, that I concern my self to maintain. That several passages related there are impossible, and other circumstances very hyperbolical in that sense in which he understands them, I think I have sufficiently proved; and yet, that the whole relation might be true in that sense I have put upon it, I hope I have made no less evident.

CHAP. V.

OF THE MOST EFFECTUAL WAY TO FILL A DEAF MAN'S CAPACITY.

HITHERTO I have been taking measures of the deaf man's capacity. I come now to consider of the way to fill it. And here my design is not to give a methodical fynteme of grammatical rules, but only such general directions whereby an industrious tutor may bring his deaf pupil to the vulgar use and *ütz* of a language, that so he may be the more capable of receiving instruction in the *ütz* from the rules of grammar, when his judgment is ripe for that study. Or more plainly, I intend to bring the way of teaching a deaf man to read and write, as near as possible to that of teaching young ones to speak and understand their mother-tongue.

I will begin with a seeret, containing the whole mystery of the art of instru&tig deaf persons; that is, I will describe such a powerful engine, as may be able to fill his head as full of the imagery of the world of words of man's making, as it is of the things of this visible world created by Almighty God; which engine shall have one property more, that it shall not fail of success, even supposing both master and scholar to be the next degree to dunces.

Here, methinks, I see the reader smiling at this *fortunam Priami*, and hear him whispering to himself *parturiant montes, &c.* But I hope, before I have done with my notion, to reconcile him so far to it, as to bring him

to judge that there is something considerable in it; and tho at first he meet not with all that this *hiatus* may seem to have promised, yet at last he may meet with something more than he expected. This powerful and successful engine is not the tongue of the learned, but the hand of the diligent. The hand of a diligent tutor will not fail to make a rich scholar, if *copia verborum* may deserve the name of riches. Diligence will be that same virtue in our deaf scholar's tutor, that Demosthenes makes action to be in his eloquent Orator. Let the deaf child then have for his nurses, not the nine muses, but the nine magpies; let him be sent to school, not to πολύμυχος Ὀδυσσεὺς, but to ἀμετροεπῆς Θεοῖς της.

Diligence, you will say, is powerful in all arts. True it is, yet as a handmaid; but here I think, that without a *catachresis*, I may call it the principal point of art. This, with very few directions from art, will do the work effectually; all the fine tricks of art, which the wit of man can contrive, will be ineffectual without this. The only point of art here is, how to make an application to your deaf scholar, by the same distinction of letters and words to his eye, which appear to the ears of others from words spoken; that is, to know his letters and to write them readily; diligence will do the rest. For example; let the same words be seen and written as often by the deaf man, as they have been heard and spoken by the blind; if their faculties of memory and understanding be equal, the measure of knowledge also will be equal. But here it will be necessary that I explain what I mean by diligence.

By diligence I understand two things; 1. That which is properly so called, both in the master and scholar. This Sir Kenelm Digby calls much patience and constancy, in the experiment upon the Spanish Lord. 2. Many other adventitious helps. I summed up the advantages the ear hath above the eye into these two; 1. Having more opportunities of time; 2. Doing more work in less time. Here I will shew how diligence, with a few directions from art, may in a good measure remedy this inequality.

It is a received maxim amongst those who have employed their thoughts in that successful enquiry about a perpetual motion—Reconcile time and strength, and this will produce a perpetual motion. The application is easy from what I have said before, comparing the deaf man with the blind.

Let them have equal time and force of acting, and their proficiency will be equal. That care and diligence both in the general and the particulars following, may remedy this inequality in a great measure, I think no body will doubt. Neither ought this to be any discouragement, that the reconciling time and strength, as to a geometrical equality, is not possible; for it is not here as in the perpetual motion: there, if you fail of a minute, or a dram, all your labour is lost; here nothing is lost, but just so much as you come short of him you compare with. How much this is, we will see by the particulars following.

1. If the deaf scholar could be brought to speak readily, this would lessen the inequality of force by one-half; and if it were possible that he could read the speaker's words from his face, this would make a geometrical equality of force in the eye and ear; so that the only inequality would be then in time, the eye being confined to light, bodily posture, and distance; and out of these circumstances, the deaf and dumb man were perfectly cured. But, because I am distrustful of this cure, for which I have given my reasons, Chap. IV, I will confine myself to reading and writing, most properly so called, as both the more certain and perfect cure.

Here the first piece of diligence must be, *frequens exercitatio styli*, that is, as I understand it in this place, using the pen and fingers much. If this be so necessary for forming an orator, as Cicero teaches us in his *de Oratore*, inculcating it with *ut saepe jam divi*, who has the use of the two principal organs of eloquence entire, how much more must it here be necessary where the pen must be both pen and tongue. Great care, therefore, must be taken, to keep your scholar close to the practice of writing; for, until he can not only write, but also have got a quick hand, you must not think to make any considerable progress with him. It is true, that it were possible to teach a deaf man to read without teaching him to write, as one may learn to understand a language spoken and not to speak it; but this would be but half a cure, and leave your scholar incapable of society.

And, because the conveniency of writing cannot always be in a readiness, another great help will be to have *tabulae delictiles*, of stone or black wood hanging up, for expedition, in several convenient places. A third help will be to have some common forms written in those tables, there to

continue, and to be filled up as occasion requires, like Virgil's *Sic vos non robis, &c.* such as, *Where is? I pray, give me! Who? When? What? &c.* These may serve not only for expedition, but by them also your scholar may be taught to vary. Pocket table-books may sometimes be more ready than these. Fourthly, When neither of these is in a readiness, then practice by an alphabet upon the fingers; which, by frequent practice, as it is the readiest, so it may become the quickest way of intercourse and communication with dumb persons. But I shall have occasion to enlarge more on this, Chap. VIII. Fifthly, Another piece of useful care will be, to keep him from any other way of signing, than by letters. Sixthly, Add to this, that his familiars about him be officious in nothing, but by the intercourse of letters, that is, either by Grammatology, or Da&tiology.

If now, lastly, I can make it appear that diligence out-weighs wit in our present case, I hope my former flash will not be thought to have ended in smoke. And this, methinks, is easily understood from obvious and daily instances; do not we see that young ones, tho' of very weak parts for understanding Grammar, yet come as soon, and some of them sooner, to understand and speak a language by use, without art, than those of stronger parts. One boy has gone to school seven years, and yet understands not the common accidents of Grammar; another in the half of that time, is able to expound an author, and resolve all the grammaticalizations that occur, to a tittle: take the same two at play, or in things where there is no occasion to shew their learning, you will often find that the flow boy, for the nimbleness of his tongue, and *copia verborum*, may seem to exceed the other, as far as he doth him in art.

Hence it will seem to follow, that the principal point of art in teaching a flow scholar, is to use no other art but that of diligence; and if so, a second inference will be, that there is none so fit to teach a flow scholar as a flow master; that is, one dunce to teach another. This I know will seem ridiculous and absurd to many, yet I declare, that I am much of this mind in earnest, in our present case, where Grammar is excluded. For an acute man will be impatient, and not able to stoop so much as the other. And to clear this further, I think it will be easily assented to, that a prattling nurse is a better tutrix to her foster-child, than the most profoundly learned doctor in the university.

My last instance, therefore, shall be—Take master and scholar, qualified as before, adding diligence as I have described it, and let a liberal reward be proposed to the master; if the work be not effectually done, let me be the dunce for them both.

If, therefore, this cure may so easily be performed, what a reproach is it to mankind, that so little compassion is shewn to this infirmity of human nature; these wretched impotents being not only neglected in the point of education, like brutes, but also, as if this were not unkindness enough, the laws of men do most inhumanly deprive them of many priviledges wherein the comfort of life consists. As for former ages, I confess they are to be excused; for tho. as I have been proving, diligence be the principal point of art, yet was this a secret to them; but in this knowing age, in which proofs have been given both at home and abroad, that this weakness is cureable in a good measure; and, if the reasons contained in these papers have any weight, cureable even to perfection, so far at least as concerns the better part of the man; that is, these impotents may not only be instructed in the common notions of language, which is the bond of human society, but also from this foundation may be raised the superstructure of all other arts, which are either for use or ornament to human nature: I say then, for us to neglect so worthy and noble an experiment, and so great an object of charity and compassion, were at once to degenerate from the charity of our ancestors, and to make their ignorance preferable to our knowledge.

CHAP. VI.

OF A DEAF MAN'S DICTIONARY.

Two a diligent inculcating of the common forms of a language, following no other rule or method but that of the nursery, would undoubtedly bring the deaf man to understand and write it so as the vulgar understand and

speak it; yet some directions from art, specially if your scholar be ingenious, will both facilitate the work, and do it much better; that is, it will make him understand the nature of words better, and so prepare him for the study of grammar, as also the nature of things for which he sees words substituted, and so prepare him for the pursuit of other arts. I will, therefore, give a few such directions, whereby the teacher, abstaining from rules and words of art, may be enabled to produce the proper effects of art in his scholar. But first I will resolve two preliminary queries: 1. What language is easiest to be learned? 2. And what language will be the most useful?

For the first, a language of a Philosophical Institution or a Real Character, would be by much the most easy; as being free from all anomaly, equivocalness, redundancy, and unnecessary grammaticalizations; and the whole institution being suited to the nature of things, this verbal knowledge would not only come more easily, but also bring with it much real knowledge.

Secondly, The language of greatest use to be learned, will be that of the place where he lives, and of the people with whom he is to converse. And here with us, the deaf man has several advantages above other nations. First, That our English is freer from anomaly and equivocalness, at least in writing, which is enough for him, than many other languages. Second, It is not so much clogged with inflexions as other languages; and, third, our words are for the most part monosyllables, and therefore more easy to be remembred. I come now to the promised directions.

I will make way for particulars by observing, first, in general, that the way of teaching here, must be something mixt, and as it were middle between the grammatical way of the school, and the more rude discipline of the nursery. The first initiation must be purely grammatical; but when your scholar is got over this difficulty, of knowing and writing his letters readily, then imitate the way of the nursery. Let *utile* and *jucundum*, variety and necessity, invite and spur him on, specially if he be young or of a lache temper.

You must not be too grammatical in teaching till you find his capacity will bear it: he must not be dealt with as school-boyes, who are often

punished for not learning what is above their capacity. It is enough for him to understand the word or sentence propofed, without parfing every word and syllable; for this is all the ufe of language that not only children but even people of age that are illiterate have; they understand the meaning of what is spoken, but can neither tell how many words, syllables, or letters came from the speaker's mouth. So that the having the vulgar ufe of a langnage, and the understanding it grammatically are very different things. And this preposterous way of learning the learned languages, firſt Grammar and then the language, is the caufe of fo low progress in thoſe that apply themſelves to the ſtudy of them.

The firſt exercife you muſt put your ſcholar upon, is to know his letters written or printed, and upon his fingers, and to write them himſelf; and when he comes to joyn, let his copies be of ſuſh words as he may be taught to understand; fo that at once he may be learning both to write, and understand the meaning of what he writes. When you have got him to write fair, keep him to conftant pra&tice, that you may bring him to write a quick hand, which his condition requires.

Let him begin to learn the names of things beſt known to him, how heterogeneous foever; ſuch as the *elements, minerals, plants, animals, parts, utensils, garments, meats, &c.* and generally the names of all ſuſh corporeal ſubſtances, natural or artificial; not only absolute, but relative, as *father, brother, master, servant;* as alſo names of offices and profeſſions, as *cook, butler, page, groom, taylor, barber, &c.;* for all theſe will be as eaſily apprehended as the moſt diſtin&t ſpecies of natural bodies. Let his nomenelature be written down fair, and carefully paſerued, not only in a book, but on one fide of a ſheet of paper, that it may be affixt over againſt his eye in conuenient places. And let this his diſctionary be forted three waies: 1. Alphabeticallly; 2. Following the order of double confonants, both in the beginning and the end of a word; 3. Redueing it to feveral heads or claffes, with reſpe&t not to the words but the things, as in Junius' *Nomenelator;* for every one of theſe methods will be of good uſe to him.

After he has got a good ſtock of theſe concrete ſubſtantives, then proceed to adje&tives; namely, ſenſible qualities, quantity, with ſome metaphy-

fical notions ; which all of them almost admit of proper contraries, which illustrate one another, and therefore will be of great use to the learner. Let him be made to understand adjectives by joyning them to their proper subjects, taken out of his vocabulary of substantives already understood, as *hard iron, stone, bone, &c. soft silk, wool, cloth, &c.* And sometimes instance the two contraries in that same subject, as *iron hot, cold* ; and thus he will make a further advance to complex notions.

Observe here, that by the help of an almanack and watch, it will be easy to make your scholar understand all the differences and words of that difficult notion of time.

After he has practised sufficiently upon complex notions of substantives and adjectives, let him proceed to words of action, whether bodily or spiritual, which Grammarians call verbs, as *break, cut, hold, take, laugh, affirm, deny, desire, love, hate, &c.* And thus much shall be enough to have been said of his dictionary, in this rude discipline under which we suppose him as yet to be.

Here I would have it well observed, that tho in applying myself to the deaf man's tutor I have followed something of method, *docendi causa*, yet I do not advise him to take this course with his scholar : but, as I said before that the names of things best known to him, how heterogeneous soever, were to be first learned, so here I say that there is no regard to be had to the cognation, or grammatical affinity of words. In a word, occasion will be the best mistress of method, till he have made a considerable advance ; and then, when his dictionary begins to be numerous, it will be necessary to draw it up in rank and file. Nay further, I am so far from advising to follow any method at first but what is occasional, excepting only the stated and fixt order of letters in the alphabet, that if your scholar be not very young, you may propose sentences as early to him as single words ; especially interrogatives and imperatives, as, *Where is your hat? Whose hat is this? Who gave you this apple? Rise up, sit down, give me the cup, shut the door, &c.* And these may be easily varied, indicatively, infinitively, affirmatively, negatively, &c.

And yet for all this, I cannot deny but the teacher may, and must contrive some method for himself, even of those things which he has taught,

following occasion and his pupil's capacity, that he may know the better to take the measures of his progress, and to make the best use of occasions offered.

CHAP. VII.

OF A GRAMMAR FOR DEAF PERSONS.

HAVING dispatcht the deaf man's Dictionary, I come in the next place to speak of his Grammar. I should contradict the principles I have formerly laid down, if I should insist much upon Grammar; neither, indeed, doth our English tongue require or afford much to be said by him, who would be ambitious to shew himself γραμματικώτατος. I shall, therefore, only make some few reflexions upon Etymology and Syntax, supposing Orthography to belong to Lexicography, of which already: and for Prosody, our scholar is no more able to receive its precepts, than a blind man is to judge of colors.

I shall only take notice of five etymological grammatications, and do but name them; for I judge that these and all other points of Grammar are to be deferred, at least as to an accurate explaining of them, until he be fitted for the study of Grammar, in manner as I have said before.

The first is the plural number, for which the rule is but one and easy. Add *s* to the singular, *pen*, *pens*, and the exceptions are not many, which here I pass by. 2. The comparative and superlative degree, almost as easy as the other. They are formed by adding the terminations *er* and *est*, or by the auxiliary words, *more*, *most*, as *hard*, *harder*, *hardest*, or *more hard*, *most hard*. The exceptions are not many. 3. The participle active or neuter in *ing*, from which I think there is no exception; and the participle passive, which is oftentimes the same with the preter-imperfect tense without an auxiliary word, as, *I loved*; or the preter-perfect tense with an auxiliary word, as, *I have loved*: but from this rule are a multitude of

exceptions, which is the greatest irregularity in the English Tongue. 4. The adverb of the manner ends in *ly*. This also hath its exceptions, but not many. 5. The abstract ending in *ness* generally.

These things you need not teach your scholar by rule, for a little practice will enable him to make a rule for himself, and to bring the exceptions too under his rule; as we hear outlandish men and children saying often, *mans, womans, foots, for men, women, feet*.

As for that ambiguity, that almost every concrete substantive in English is used verbally, as *pen, hand, foot, &c.*, this adds much to the copiousness, emphasis, and elegance of the language, and yet gives very little cause of mistake, the construction of the words determining the signification. But the verbal signification of these words being metonymical, it will be best to leave them to their own place. So much for Etymology shall serve in this place: now for Syntax.

The learned languages make two general parts of Syntax, agreement and government; whereas it seems to me, that with them Syntax requires a distribution antecedent to this; to wit, that the Syntax of words is either *per se* or *per aliud*, i. e. the grammatical coherence and connexion of words is made by the terminations of the words themselves, or by auxiliary words called particles. But neither the one nor the other of these distributions does our language require or admit of, being freed from all incumbrances of inflexions by genders and cases, except a few pronouns, and, consequently, from the rules of agreement and government; all our Syntax consisting in the cement of auxiliary particles.

To treat of Syntax then in English, is to shew the use of the particles in forming words into sentences. For to explain these notions separately, were to build castles in the air; and to form sentences without them, were to make ropes of sand.

Here I will not insist upon explaining every single particle, as if I were dealing with a dumb scholar; but remembering that the present address is more to the master than the scholar, I will instance only in some few, which may serve for a clew to guide any ingenious adventurer thro the whole labyrinth.

As I would advise the dumb scholar to be often put to practice upon

verbs of bodily action, varying the circumstances by the particles, so will I single out the verb *cut*, to be the principal verb in the following examples for explaining the particles.

I begin with pronouns, which, according to the notation of the word, are words put for other words. Let, therefore, these things be present, for whose names the pronouns are the *provocabula*; and then it will be easy to make your scholar understand the use of these pronominal words. I will instance, first, in the demonstratives, *I, thou, he, we, ye, they*. Let there be six persons present, as many more as you will. Write down, *I cut, thou cut, he cut, we cut, ye cut, they cut*. Let the master take his scholar by him, and place a third person over against him, all of them prepared with a knife, and apple, or stick, &c. Let the master cut first, pointing to the words *I cut*. 2. Let the scholar cut, the master pointing to the words *thou cut*. 3. Let the third person cut, pointing to *he cut*. And for the plural number, let the master and his scholar stand first together, placing two more near them, and two over against them. Then let the master and scholar cut, pointing to *we cut*; let the two by them cut, pointing to *ye cut*. 4. Let the two over against them cut, pointing to *they cut*. The possessives, *mine, thine, his, ours, yours, theirs*, may be taught after the same manner; *my apple, thy apple, his apple, our apple, your apple, their apple, mutatis mutandis*. In short, all pronominal words after the same manner: *all cut, none or nobody cut, this boy cut, that boy cut, the same boy cut, another boy cut, &c.* Let him practice much upon this and other verbs, till you find that he is able to make these distinctions of himself.

When he can distinguish persons, it will be easy from many examples, *cuttest, cutteth, breakest, breaketh, holdest, holdeth*, to make him understand, that the second and third person singular are distinguished by termination from the other persons.

For the signs of tenses, *do, dost, doth, have, hast, hath, was, wast, were, shall, will*, write down, *I have cut the pen, I do cut the apple, I will cut the stick*; cut accordingly, pointing to your scholar; or write, *I have stood, I do stand, I will stand*; do accordingly. *I have walked, I do stand, I will sit*; do accordingly. Do not trouble your scholar with too nice distinctions of words, such as *shall* and *will*, *did* and *have*; it is enough for him, as yet,

that he understand the use of words in the common forms of speech, as illiterate persons do.

Let him practice much upon the pronouns, and signs of tenses, with verbs of action, adding other circumstances of time, place, manner, &c. and that with all the variety possible, of familiar, plain, easy, most common, and most frequently occurring circumstances.

The *copula* will be easily understood, because of its frequent use, both affirmatively and negatively; *Fire is hot, water is not hot; Water is cold, fire is not cold.* So in all its inflexions; as, *I am tall, thou art short, he is thick, I am sitting, thou art standing, he is walking.*

The particles OR and AND, with the adjectives *same* and *diverse*, are to be diligently inculcated, as being words of frequent use, and useful for explication, and declaring the sense of other words. *Or*, in the explicative sense of it, coming between words signifying the same thing; *and*, between words signifying diverse things. It may be good to write down many examples of synonymous words and phrases which your scholar understands, joining them with *or*, as

The same, { I stand, or I do stand, or I am standing.	{ to go, or to walk.	the same, { wide or broad,	the same.
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So for the copulative *and*, give such examples as these:

Diverse, { Hand and Foot.	diverse, { Pen and Ink.	diverse, { Sun and Moon.
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But the frequent recurring of these and many such like in common, familiar, and necessary forms of speech, will soon make them to be understood.

As for particles signifying motion, as *to, from, thro, by, into, out of, hither, thither, hence, thence, &c.* whether prepositions or adverbs; so distance, as, *far off, near, at, hard by, close by, &c.*; position, as *before, behind, above, upon, beneath, about, up, down, beyond, on this side, &c.*: their use and meaning is so plain and obvious, that there needs no more but choice of fit examples to make them understood. The table is *before* your face, the chair is *behind* your back, the book is *upon* the table, my hand is *above* the table,

the nose is *between* the eyes, the eyes are *above* the mouth, the mouth is *under* the eyes, the tongue is *in* the mouth, to put *out* the tongue, to rise *up*, to fit *down*, go *to* the door, *from* the door, come *hither*, go *thither*, &c. These and such like words, signifying circumstances perceivable by sense, are as easily apprehended as words signifying bodily substance or sensible quality.

Even the particles of a metaphysical extraction, and more remote from sense, may be easily understood, if the teacher be not too metaphysical in his application. I will mention here only two topicks of this kind of particles; the causes and the comparatives, which are the two principal sinews of discourse. The particles from the causes are diverse, *from*, *of*, *with*, *by*, *wherefore*, *therefore*, *because*, *why*, &c. Use examples such as these: This pen was made *by* the master *of* a goose-quill, *for* to write *after* my copy. Explain *why*, *wherefore*, *what is the cause*, by expostulations and interrogations with your scholar himself or others, and *because* in answer to these.

Observe here, that many of these particles being very equivocal, it will not be prudence to represent this difficulty all at once, lest it amaze and discourage your scholar. For example, you have made him understand the causal particle *with*, in such examples as these; to cut *with* a knife, to write *with* a pen; do not immediately put him upon the particle of society *with*, as, *go with me*; but explain the various use of such particles, as they offer themselves occasionally in practice, and as you find his capacity is able to receive: for, improving of occasions and complying with the scholar's capacity, will be the master's greatest commendation. Not but that he may be put upon learning many set forms for exercise of memory, tho' he understand them not perfectly. But do not put his understanding to the rack, by an undifferent pressing upon his apprehensive faculty, notions either simple or complex, which you find he receives not readily. But make a collection of such words, and watch opportunities of explaining them. I can give no better rule for explaining words hard to be understood, than that which Horace has given, in a case not much unlike ours.

*Dixeris egregie, notum si callida verbum
Reddiderit iunctura novum.*

Where the principal verb of a sentence is clearly apprehended, it brings great light to other circumstantiating words. So that the skilful chusing of verbs of action, well understood by your scholar, and the like dexterity in placing a hard word which you would have him to understand, amongst other words of circumstance already well understood, in construction with the verb, every word of the sentence will reflect some light upon this dark word.

The second classis of metaph: or perhaps more properly logical, particles, are those that owe their origine to the topick of the comparates; such as, *than, much, more, most, less, least, by so much, &c.* Explain these also by many fit examples, in which the several degrees of comparison may be demonstrated to the senes—This water is *as hot as* that; this cheefe, apple, egg, is *greater or more great than* that; this apple is the *greatest or most great* of all the apples; *by how much* this sticke, paper, is *longer than* that, *by so much* that is *broader than* this: let the proportion be fitted and measured.

It will be necessary to make a collection of such forms of sentences as he understands, one or two examples of every form, that upon occasion he may have recourse to them as to rules and precedents in the like cases; and, amongst other forms, forget not imperatives and interrogatives, for which he will have early and frequent use. Gather up all the forms of interrogation, *when? who? what? where? whose? whence? whither? how long? many? great? &c.* Form sentences upon every one of these interrogations in things familiar, and subjoyn proper answers; as, *Whose book is this?* A. *Mine, thine, his, thy brother's, the master's, &c.* *When shall we go to bed?* A. *By and by, at ten o'clock, an hour hence, &c.* Imperative forms; *I pray give me the book, take up the pen, lay down the paper, sit down, rise up, put on your hat, open the door, shut the door, &c.*

For exercise you may find great variety for him; such as, to vary the circumstances proposed, to describe things from their causes, from their contraries, by comparing them with other things, to form a narration of things seen, to write epistles. Let him be put much upon the exercise of memory, and that not only in loose words and incoherent sentences, but let him bestow much time and pains in learning by heart, in the first place, for his *lectiones sacræ* upon the Lord's Day and Holy-dayes, the Lord's Praier, the Creed and Ten Commandements, with the Church-Catechism.

The solemnity and frequency of Divine Service would have good effects upon him, being placed conveniently opposite to the minister, with a book before him, and one to direct him, till custome enable him to direct himself. This would not only excite him to piety and devotion, but in progress of time, he would come both to understand, and have by heart the greatest part of Divine Service. Some other select passages of Scripture might be recommended to him, as the First Chapter of Genesis, the History of our Saviour's Nativity and Sufferings. The most proper books among profane authors for him to practice on, I think, of many, were Æsop's Fables, and some playes where there is much of action.

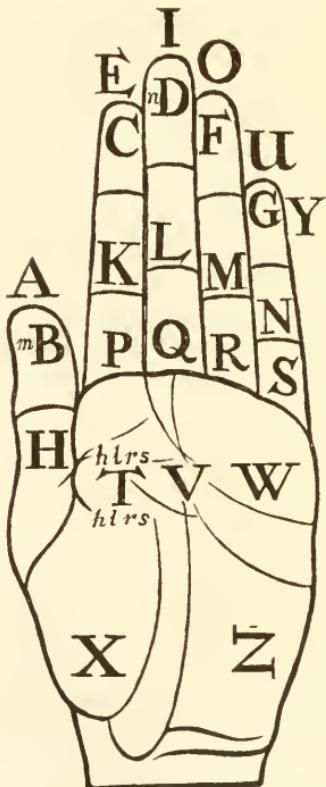
In the application of all I have said, respect is to be had to the quality of the person to be taught; whether young or old, dull or docile: how to comply with these circumstances, must depend upon the prudence of the teacher. When his progress is so considerable that it may be said of him, he understands the English Tongue tolerably well, he may then be put upon the study of Grammar, which will be the more easy to him, because the course of study he was in before had a mixture of Grammar in it, as I have said. Afterwards, or before if you please, he may be taught Arithmetick and something of Geometry.

CHAP. VIII.

OF AN ALPHABET UPON THE FINGERS.

BECAUSE the convenience of writing cannot always be in readiness, neither yet tho' it could, is it so proper a medium of interpretation between persons present face to face, as a hand-language. It will, therefore, be necessary to teach the dumb scholar a finger-alphabet; and this not only of single letters, but also for the greater expedition, of double and triple consonants, with which our English doth abound.

After much search and many changes, I have at last fixt upon a finger or hand-alphabet according to my mind; for I think it cannot be considerably mended, either by myself or any other, without making tinker's work, for the purposes for which I have intended it; that is, a distin& placing of, and easy pointing to the fingle letters, with the like distin& and easy abbreviation of double and triple consonants.



I deny not but there may be many more abbreviations than I have provided for, namely, of initial syllables and terminations; but these I

have past by at present, for two reas ons. First, I think there will be little need of them, for I doubt not but that with the provision I have made, an habit equal to that in those who write a quick hand, may very near make the hand as ready an interpreter as the tongue. Secondly, If they should be judged needful, I have taken care that with a few rules they may be added, without altering any thing of the institution of this present scheme.

The scheme, I think, is so distinct and plain in it self, that it needs not much explication, at least for the single letters, which are as distinct by their places, as the middle and two extremes of a right line can make them. The rules of practice are two. 1. Touch the places of the vowels with a cross touch with any finger of the right hand. 2. Poynt to the consonants with the thumb of the right hand. This is all that I think to be needful for explaining the scheme so far as concerns the single letters, and for the double consonants, I have made provision for abbreviating a threefold combination of them. I shall here only give the rules of abbreviation of the several combinations I have made choice of, referring the reader for the reasons of my choice, to the following Treatise of double consonants.

The first combination of double consonants I make provision for, is when *h, l, r, s*, come in one syllable with other consonants; and that two waies, either before or after another consonant, as in these examples.

- | | | | |
|------------------------|-------------------------|-------------------------|------------------------|
| 1. H. { light,
the. | 2. L. { salt,
title. | 3. R. { heart,
trie. | 4. S. { hast,
hats. |
|------------------------|-------------------------|-------------------------|------------------------|

1. When these four letters are prefixt to other consonants, as in *light, salt, heart, hast*, the rule is—Point skin to skin with the four fingers of the other hand respectively to the capital letter, which in the present example is T, to which they are prefixt; which by institution designs the double consonants *ht, lt, rt, st*. 2. When the same four letters follow another consonant, as in *the, title, trie, hats*, then point, as before, to T with nail to skin, which gives *th, tl, tr, ts*.

A second combination of double consonants, worthy of this care of abbreviation because of their frequent use in English, is when the liquids *m, n*, come before the mutes and femimutes, *b, p, d, t, g, k, or c*; that is,

m before *b, p*, and *n* before *d, t, g, k, c*. The rule is—Touch the place of these mutes and semimutes with the first and second finger joyned; and this by institution gives the liquid and the respective mute or semimute following, as in *lamb, lamp, hand, hunt, anger, ink, France*.

The third abbreviation is of triple consonants in the beginning of a word or syllable, where *s* is alwaies the first; as in *schism, skrew, shrine, spread, strong, scrag, sphinx, sosthenes, splinter, justle, &c.* The rule is—Joyn the thumb to the finger pointing to the other two consonants. And so much for abbreviation of double and triple consonants.

But observe here, that as school-boyes are to learn *amarisse* before *amasse*, and *ποιεω* before *ποιω*, and to write words at length before they learn shorthand, so let your dumb scholiar, and others that would practise Daftylogy, first know and practise upon the single letters, before they come to practise upon the rules of abbreviation.

Now, tho this way of shorthand, or abbreviation of words, be distinct, easy, quick, and comprehensive, yet is there another way of practising, which comes nothing short of this in other respects, and in one respect seems to be preferable, that it supposes nothing necessary to be known for practising but the places of the single letters, without making new rules for distinguishing double and triple consonants from the single. The rule is—Point to all the single letters of the double or triple consonant, *simul et semel*, which will be found to be as easy as poynting by the former institution with one single touch, as will appear in these examples; *when, which, the, light, blunt, brand, grunt, plaster, spread, strong, &c.*

If here it shoulde be objected, that this will breed confusion, leaving the reader doubtful what letter to begin with, to this I answere: 1. For double consonants in the beginning of a syllable, this objection can never be of any force; for there is no English word found wherein their order is inverted, as will appear from the following Treatise of double consonants. 2. For double consonants in the end of a word, so far as concerns the second combination formerly mentioned, there can never be any mistake; for scarce, I think, is there any example occurs wherein their order is inverted, or if there did, then the rule will be in that case—Point to the single letters distinctly. So that the objection is of no force, except

only against the first combination of double consonants, and that only in the end of a syllable; for there are some, but not many examples, where the order is inverted, as, *salt, title, hast, hats*. But to this it may be answered, that in a continued sentence the sense will easily determine the case, and take away all ambiguity; as, Here lies one *hat*, there lie two *hats*. But if you have occasion to distinguish the word *hats* from *hast*, then you must point to all the letters distinctly.

And this compendious and expeditious way of Cheirology may be extended further than this abbreviation of double and triple consonants; for they that are masters of a language, and have got a considerable readiness of practising, by distinct touches of single letters, will find it as easy as it is useful, to express whole syllables and whole words that are monosyllables, specially in words of common use, with one multiplied touch, *simul* and *semel*. My meaning by this multiplied touch *simul* and *semel*, is not to touch distinctly all the letters of a syllable or word, by the index or any one single finger of the other hand successively, making so many distinct motions from place to place, as there are letters in the syllable, but so to order the matter, that an equal number of the fingers of the other hand may be used for a simultaneous touch to make the word or syllable, according to the number of letters it shall happen to consist of. This way of expressing syllables, and words monosyllables, with one multiplied touch, after a little practice, will be as easy and quick as pointing to one single letter with a single touch; it will be also as distinct as pointing to every letter successively with one finger.

But let it be well observed here, that tho I would have a whole syllable expressed with one single action and motion of the whole hand, yet let not the distinct touches be so simultaneous, but that it may appear where the word begins and where it ends.

Here I think will be a proper place to give a rule how to know when a word is ended, and it is this. Let there be a continued actual touch of more fingers, or one at least, till the word be ended; or if this happen, as it may in some words, to be uneasy, then make a quick motion from the place of the last letter of the word. But this difficulty, after a little practice, will vanish away.

Now, because this discourse may fall into the hands of some that have trifling heads like my own, to whom it will be acceptable to know what other waies of Daftylogy I have had under consideration, I will, for satisfying their curiosity and perhaps saving them the expence of vain labour, mention some other waies which I have considered, and after examination rejected.

The first way is to make the figures of the letters upon the hand, which differs only from writing in this, that the one is transient and the other permanent. It is true, that this is more ready upon all occasions than writing; but neither distinct nor quick enough to be taken notice of here.

A second way is the forming of the letters symbolically; as, to make an X by croſſing two fingers, a croſſe touch upon the end of the thumb for a T, three fingers joyned for M, two fingers joyned for N, &c. This symbolical way I reje&t, as being defective in two respects; firſt, it is defective in the point of symbolizing, for it will not be eaſy with the fingers to repreſent the ſhapes of all letters. This way of expreſſing the letters symbolically, is ſomewhaſt like the conceit of a ſymbolical character, and a language of nature, which ſome have talked muſh of, but without any foundation in nature, and therefore all attempts of art muſt be in vain. But ſecondly, this way is too laborious, and ſo defective in anſwering one of the principal ends for which Cheirology is deſirabla, and deſerves the name of an art; that is, a quick and ready expreſſion and interpretation of the conceits of the mind, coming as near as poſſible to that of the tongue.

The third way is to deſign every ſingle letter by a ſingle touch, which I judge muſh the better way than either of the other two, as being more ſimple, diſtin&t, eaſy, and of quick diſpatch. Having, therefore, reſolved upon this, that the moſt proper way to expreſſ the ſimple elements of the alphabet would be by a ſingle touch, it remained that they ſhould be diſtinguiſhed amongſt themſelves by their places. And here again, after conſideration and tryal, I have reje&t several waies of diſtinguiſhing the letters by places. Firſt, I provided places on both hands, back and fore, but finding this laborious and intricate, and perceiving that there might be diſtinction enough found in one hand, I placed the whole alphabet upon

one hand; yet so as to make use of an equal number of places on both sides of the hand. But at last finding that all the necessary distinctions could be provided for on one side of the hand, I fixt upon the institution of the present scheme; which, I think is done with that consideration and care that, as I said before, it cannot be much improved.

Here I thought to have kept one secret of art to myself, at least till I should see how other things I had discovered should please; but I must confess my own weakness, that in things of this nature I am *plenus rimarum*. I know not how considerable this secret will seem to others, but I declare, that I may confess another weakness, that I was much affected with it; for, after a long and tiresome chafe, and having pursued my notion, as I thought, to a *nil ultra*, when I was set down and pleasing myself with my purchase, on a sudden I fancied myself to see an one-handed deaf man coming to me, and as much as I could read in his eyes and countenance, expostulating with me thus: What have you done? Is there no help for me? Shall one eye serve in Schematology, and one ear in Pneumatology; one tongue in Glossology, yea one hand in Typology; and shall not one hand serve in Da&tylelogy? With this fixing my eyes steadfastly on his hand stretched out, I thought with myself that I could discern a mouth and a tongue in his hand; the thumb seemed to represent the tongue, the fingers and the hollow of the hand the lips, teeth, and cavity of the mouth. Upon this I made signs to him to try to follow me, as I pointed to the letters on my own hand, which he did so exactly that the surprise put me in amaze for some time. But when I had overcome my passion, reflecting upon this wonder both of nature and art, I observed that of the twenty-four letters, he pointed to sixteen with his thumb. Thus I dismissed my deaf and lame patient, bidding him be of good courage, and live in hopes of an effectual and speedy cure.

But after he was gone, I began to consider with myself: What! shall I magnify this as a mystery and wonder of nature and art, to find a way to metamorphose a chimera into a man, or to make a black swan white? This will be *magno conatu magnas nugas agere*. As I was thus thinking, it happened that I was smoking a pipe of tobacco, and having a present occasion to dispatch a speedy message, I was unwilling to let my pipe go

out, and so at that present was deprived both of the use of my tongue and one hand ; wherefore reflecting upon the lesson which I had lately taught the one-handed deaf man, or shall I rather say, which he taught me, I call a boy to me, whom I had trained up in Da&tylogy, and delivered my message to him with one hand. He, staring in my face with a smiling countenance, for I had never spoken to him before that time with one hand, performed the message very readily, and returned me a speedy answer, using the same organ of interpretation, for I surprised him eating an apple, to me which I had done to him. This gave me occasion to think that this point of art had not only one-handed deaf men for its object, but that there might be many other cases wherein it might be useful to speak with one hand ; as to speak to a dumb man riding on horseback, holding the reins with one hand, and with the other asking him, How do you do ? or sitting at table, holding the cup with one hand and with the other saying, Sir, my service to you ; or, with one hand holding the knife and with the other asking, What will you be pleased to have ? &c.

And if any man could be supposed to have that readiness and presence of mind which is said to have been in Julius Cæsar, he might at once keep up discourse with three several persons upon several subjects, talking to two with his two hands, and to a third with his tongue. And here, by the by, it is observable, that without any distraction of mind one may speak both to a deaf and blind man at once, expressing the same words by the tongue to the blind man, and by the hand to the deaf.

Nay, further, I declare that as much as I have as yet been able to discover by practice, I judge the way of speaking with one hand preferable to the other of using both, and that in all respects unless it be in this one, that it is not capable of distinction enough for all the necessary abbreviations of double consonants, which perhaps, after a readiness and habit acquired, may not be needful ; or if it were, yet I know that one hand is capable of many more distinctions than I have as yet made use of ; but at present I think it not *tanti* to make use of them, for I foresee, that the conveniency will scarce balance the inconveniences.

Now, tho the practising of this hand-language be so plain and easy from the following scheme, and the preceding explication of it, that any one

who can but read, without knowing to write, may become his own teacher : yet, seeing the nature of all skill and cunning deserving the name of an art, is such that something of instruction *viva voce* is, if not necessary, at least useful, so here, something of direction from one well skilled in the practice of this art, either *viva voce*, or, which is the same thing and as emphatick a way of teaching if it were practiced, *digito demonstrante*, will be of good use to young practitioners.

I will add one help more for enabling young beginners to practice more easily and readily ; let a pair of gloves be made, one for the master and another for the scholar, with the letters written upon them in such order as appears in the foregoing scheme. To practice with these, will be easy for any that do but know their letters and can spell ; and a short time will so fix the places of the letters in the memory, that the gloves may be thrown away as useless.

Having laid open the whole progress of my thoughts in this discovery of Cheirology, it remains that I make good my promise in the title-page, of shewing that it is useful both in cases of necessity and conveniency.

First, then, I think none will deny but that it is necessary for persons deaf or dumb ; and therefore I shall spare myself the labour of proving it any other way, than by referring the reader to the series and scope of this whole discourse. But here it will be very proper to add something how it may be made most useful to the deaf man, and in order to this let it be considered : That the nature of Cheirology is such, that it is only useful in society and converse with others ; so that, if the deaf man be trained up in this art, and have nobody about him skilled in it but himself, it is of no use to him at all ; as, on the contrary, if all people were as ready in this hand-language as he may rationally be supposed to be, then the hand between him and others, would be of the same use that the tongue is to other people amongst themselves. But seeing, according to the received way of training up youth hitherto, by which no care is taken of teaching them Cheirology, he can have none, or very few to converse with him in this way, it will be the concern of the deaf person's friends, beside the influencing all his familiars to acquaint themselves with this art for his cause, to chuse some fit person to be a constant companion to him, and to be his

interpreter upon all occasions amongst strangers. And, which is yet a more weighty concern, it would be their wisdom to project a match for the deaf person, man or woman, betimes, that the person they are to match with may be trained up in Cheirology, which would add very much to the comfort of their life; they being thereby able to express and communicate their sentiments intelligibly, not only by Dactylogy in the light, but also by Haptology in the dark.

In the second place, I am obliged to shew the general usefulness and conveniency of this art to all mankind. The particular cases wherein it may be convenient, are many more than can be expected that I should instance in; I shall therefore mention only three generals; 1. Silence; 2. Secrecy; 3. Pleasure. In cases of necessary silence, it may be useful to inferiors in the presence of great persons, to those that are about sick people, as near relations, nurses, &c. So for secrecy, if people be in company, but not so near as to whisper one another in the ear, it performs the office of whispering, it delivers and receives secret messages, &c. And, lastly, for pleasure; it may be an ingenious and useful divertisement and past-time for young people.

Here it may be objected, that all the conveniency will not balance the pains that must be taken in learning this art. This objection puts me in mind of another, and that a very considerable conveniency, and therefore I answer—The pains that is taken about learning a hand-language, if it were learned in due time, that is in childhood, would be so far from hindring, that it would contribute much to the child's progress in learning to read, if he were taught both to know his letters, and to spell upon his fingers. This would please the child's fancy, and imprint the letters sooner upon his memory, having his book always open before his eyes. So that I look upon this as the greatest conveniency of Cheirology, that it would be of so great use, and learned with so little pains.

And this consideration put me upon thinking of a more advisable way of training up young ones, than any yet practised; that is, to begin children to know their letters upon an hand-book instead of an horn-book, or at least to have a hand-book upon the backside of their horn-book; for I make no doubt, but before they could come to know the names and figures

of the letters, they would know their places upon the hand, and be able to point to them with the other, or the same hand, as readily as to pronounce them with the tongue.

And who will not acknowledge that it were a thing desirable, and deservedly to be esteemed as a piece of liberal education, to be able to speak as readily with the hand as with the tongue? And, therefore, who would not think it worth the while to train up young children, from their A B C, in Gloffology and Cheirology, *pari passu*? Specially seeing the one is no hinderance but a considerable help to the other, for I may truly say in the poet's words,

*Alterius nam
Altera poscit opem res, et conjurat amice.*

I thought, for the use of children, to have given some directions for facilitating the elementary discipline of knowing the letters, spelling, and reading, whereby not only the old way might be made much smoother, but also by one and the same labour, a considerable accession of useful knowledge might be attained by the young scholar, that is, together with reading in books reading on the hand; and, as a necessary appendage of this, writing upon or speaking with, call it which you will, the hand; whereas, writing with the hand, according to the common use of the word, is by itself a distinct and laborious art. But I fear lest some may think that I have already stuft this discourse too much with trifles, and pedantry.

A DISCOURSE OF THE NATURE AND NUMBER OF DOUBLE CONSONANTS.

MUCH hath been said by many learned men, to describe the nature and causes of simple sounds, which are the first elements of speech; as also of diphthongs and triphthongs, if any such be, coalescing of two or three vowels into one syllable; but of the coalition of two or more consonants into one syllable, little or nothing, for what I know, hath been said by any. And yet this composition of consonants deserves as much to be explained, or rather more than the other of vowels, because of its greater variety and use, especially by him who would treat of a Philosophical Language, or a Grammar for deaf persons; so that my first Treatise of *Ars Signorum* or Sematology, with this second of *Didascalocophus*, which is a legitimate offspring of that, obliged me to this enquiry.

If the question should be put; whether, in framing of words, it were a more rational institution, that a single consonant and a single vowel should always succeed one another alternately, or that there should be a mixture of syllables allowed, made partly of diphthongs partly of double consonants?

My own judgment in the case is: That both nature and art would make their first choice of an alternate succession of single vowels and consonants, and that their next choice would be, of such compounded vocal sounds as are commonly called diphthongs, and described by Grammarians, and such compounded close sounds as are most natural and of an easy pronunciation: for describing of which this discourse is intended.

But that such a language could derive its origine from blinded nature, and not from art, or a Divine institution, is no waies probable; for I conceive that there is now no language upon the face of the earth in common use, but admits of a mixt composition of diphthongs and double consonants. And the more rude and uncivilized the people are, the more frequent this composition is with them, and the sounds the more harsh and unpleasant. That roughnes of speech wears out with roughnes of manners, and smoothnes of the one is a natural consequence of the smoothnes of the other, the English Language and Nation is a sufficient proof. And if this be granted, it is argument enough to prove, that nature without art, or some more powerful assistance, would never bring forth a language in which there should be no diphthongs or double consonants; nature, I say, as it is now in its degenerate estate: how she would have decided this question in her primitive integrity and perfection, or rather how she did actually decide it, as we are assured from God's Word she did, cannot be otherwaies known to us than by some probable conjectures.

It is generally thought by the learned, that Adam was the author, both by invention and practice, of the Hebrew Tongue, not as we have it now in any of its dialects; yet if be granted, that the Hebrew had for its mother that language which Adam did invent and speak, we may with good reason conclude that, corrupted as it is, it still retains the substance and genius of its mother; there being some indelible characters upon all languages which common accidents cannot deface. For the tract of time from Adam to Moses, was longer than that from Augustus or Alexander the Great to this present age, yet the common accidents which are known to change a language could not be so many and effectual for changing the first language to that which is now called Hebrew, as they have been known to be for changing the pure Greek into that which now is

used by a remnant of the Grecians, and called Modern Greek; or for changing the pure Latin extant in Claffick authors, into that which is now called Italian; which languages, notwithstanding, keep still so manifest signatures of their origine, that it is easy to discern what stem they are branches of.

Now, amongst several other defaced reliques of that first and Divine language, remaining not only in the Hebrew but also to be found in many other of the Eastern languages, this seems to be very considerable, that the Hebrew admits of no composition either of vowels or consonants in that same syllable; but all their radical words consist generally of a single consonant and a single vowel, succeeding one another alternately, which cannot well be supposed to be the effect either of degenerate reason or chance.

There are two things more in that ancient language which seem to me unaccountable, without referring them to a supernatural cause. One is, that their radical words consist generally of three consonants, and for the most part are dissyllables; and these radical words, how different soever in their consonants, yet have still the same points, *cametz* and *pathach*, which in oral prolation make the same vocal found with *g*, which, as it is the first letter of their alphabet, and from them in all other languages, so is it the first vocal found in nature. And that originally all their words were dissyllables, as some conjecture, is not improbable; whereas in all other languages their radieals are generally monosyllables, and I think originally have all been so; yea so far so, that there are many monosyllables found to be *composita* and *decomposita*, as the learned Doctor Wallis has ingeniously observed in his English Grammar.

Another thing is, that the Hebrew does often contract a whole sentence into one word, incorporating not only pronouns, both prefixt and suffixt, but also prepositions and conjunctions with the radical word. And this compendium did first excite me to do something for improving the art of Short-hand; that drove me before I was aware upon a Real Character: that again, after a little consideration, resolved itself into an Effable language. This at last has carried on my thoughts to consider of a way how a language may be attained by reading and writing, when it cannot be attained by

speaking and hearing. So that this series and chaine of thoughts has for its first link an Hebrew grammatical.

I take notice of three things more in the Hebrew, which are considerable upon the account of a rational institution, which is not to be found in the common usage of other languages; but not so mysterious as the other three which I have already mentioned. The first is, their separating the vowels from the consonants, both by place and character, which has something natural and symbolical in it; for there is something in the structure and composition of the words, analogous to *Man* the author of them; the characters of the consonants being of large dimensions and divisible into many parts, represent the gross and material part of man, the *body*; the vowels being express by indivisible pricks or points, do answer to that which is more properly indivisible, the *soul*. This, together with a more accurate distinction of vowels into long and short, as also a more accurate division of consonants from their physical causes, that is, the organs of formation, tho of late use, according to some later writers, in that most ancient language, yet it shews, at least, how the genius of the tongue is fitted not only to comply with such an institution, but also that from all antiquity there have been some *vestigia* of that primitive and Divine, or purely rational Sematology, taught by Almighty God or invented by Adam before the Fall, (unless any should have the confidence to affirm, that this, among many other unhappy consequences of the Fall, was one, that it did not only in part deface, but totally wipe out all former impressions, leaving our first parent as the blind heathens would have him, *mutum et turpe pecus*, that is, having his soul as much *tabula rasa* as ours is when we come into the world,) which have given occasion to Grammarians of later times to bring that part of Grammar to the present establishment. But, whatever be the decision of that grand controversy about the antiquity of the Hebrew points, the observation I have made here will still be considerable. Wherefore I pass to a second thing considerable, which, without all controversy, is more ancient and of longer standing than some would have the points to be. It is agreed upon all hands, that there are three principal and cardinal vowels, &c. of as ancient a date as the first invention of letters, which, without giving offence to those that are for, or

advantage to thoſe that are againſt the antiquity of points, may, *sano sensu*, be ſtyled *matres lectionis*; becauſe all other vowels are but intermediate ſounds, and as it were the *proles* or offſpring of theſe three. Wherefore, without interpoſing as to the main ſtate of that ſo momentous queſtion, that which I take notice of here as conſiderable, is this, that it has been a thing done with great care and judgment, the eſtabliſhing theſe three letters for the cardinal vowels or *matres lectionis*, for they are the three moſt diſtin& vocal ſounds that are in nature; even as diſtin& as the two extremes and the middle of any thing that has diſtensions can be, all other vowels being but intermediate ſounds to, and gradually differing from them. **N** is a guttural ſound, and of all other vowels the moſt apert; **T** is labial, and of vocal ſounds the moſt contra&t; **'** is palatine, and equally diſtant from both. And as it is poſſible that there might be a language copious enough, allowing only the uſe of three vowels, and fecluding double conſonants in that fame syllable, provided that the radical words were diſyllables, which ſome think to have been the iñtitution of the pure and uncorrupted Hebrew; ſo would ſuch an iñtitution be much more eaſy and diſtin& than any language in being; the intermediate ſounds to theſe three radical vowels being leſs diſtin&, and therefore often-times giving occaſion of miſtakes.

I have had occaſion to mention the third thing conſiderable in the preceeding Treatise of *Didascalophus*; to wit, their nauning the ſimple elements of letters by ſignificant words, *Aleph*, *Beth*, *Gimel*, &c. which, without doubt, is as ancient as the uſe of letters, or at leaſt as Moſes: the truth of this the Grecians have confirmed by a very convincing, but withal a very inartificial argument, in naming the letters corruptedly after them, *Alpha*, *Beta*, *Gamma*, &c. as I have noted before.

Tho I have, in *Ars Signorum*, given ſuch an analyſis of ſimple ſounds, both vowels and conſonants, as feemed to me moſt natural and proper upon that occaſion, yet I muſt here repeat what has been laid there of the nature and number of ſimple conſonants, otherwife the rules of compoſition I am to give cannot be underſtood.

Conſonants, then, are firſt to be divided into cloſe, and ſemicloſe.
1. Cloſe, when the appulſe of the organs ſtops all paſſage of breath thro

the mouth ; and they are in number nine, *m*, *b*, *p*, *n*, *d*, *t*, *ng*, *r*, *k*. This closure again is threefold ; 1. A perfect shutting of the lips, and this produceth *m*, *b*, *p*. 2. The fore part of the tongue with the palate, hence *n*, *d*, *t*. 3. The hinder part of the tongue with the palate, hence *ng*, *r* *k*. These nine consonants are capable of another threefold division, upon the account of a threefold accident which equally happens to the foreaid closure of the organs respectively. For, 1. If the breath and voicee be *simul* and *semel* stopt with the closure of the organs, like the throwing of a stone against a rock, this produces the three mutes, *aP*, *aT*, *aK*. 2. If, after the closure of the organs, a *conatus* of breathing be continued, and the repereuffion of the breath from the passage stopt, making an inward murmuring like the breaking of a wave against a roek, whieh is quickly spent and hush'd into silence, the same cloſure of organs produces the three semimutes, *aB*, *aD*, *ar*. 3. If, upon the cloſure of the organs, there be a free passage of breath and voiee thro the nose, like the sounding of an organ-pipe when the key is touched, this produces a third distinction of sonorous letters from the same cloſure, *aM*, *aN*, *aNG*, (by *ng* I mean that sound which is heard in *anger*, *hunger*, not in *danger*, *hinge*) and these three sounds may be continued after the cloſure of the organs as long as one will. I have placeed a vowel before these consonants, because their power appears more distin&tly than when the vowel follows.

Hence I infer, that the number of cloſe consonants is nine, neither more nor les : not more I say, because I find that some add three more, *hm*, *hn*, *hug*, calling them mutes, making only this difference between them and *m*, *n*, *ng*, that the one is uttered vocally, the other whisperingly ; but if a whispering and a voeal breath make distin&t letters, there will be more distinctions of letters than the authors of this opinion seem to approve ; and if this be reason enough to multiply letters, I know not but soft speaking, and crying about the streets may have the same power. That certain other distinctions in the forming of these or any other letters, may be fancied by curious and musical ears, from the modes and degrees of shutting the organs, the intention and remission of the voicee, the tone being more grave, acute, &c., I readily grant ; but how to make more distinctions from these three cloſures, plain and easy to be diffeerner'd, and

worthy to be so far taken notice of as to be placed in the alphabet, is a thing I could never reach.

Again, I said no less than nine, because common custome has made one of these a double consonant, writing it with two letters, *ng*, the sound of neither of which is to be heard in pronunciation, but a perfectly distinct simple sound from the power of both, as in *sing, ring, long*, and from all letters whatever. And it is observable, that our English is very unconstant in expressing the power of this letter; sometimes by *ng* in the end of a word, as *sing, hang, long*, where nothing of the sound either of *n* or *g* is heard; sometimes by *n* alone before its brother consonants, *k, g*; before *k* every where, as *ink, rank, drukk*; before *g* in the middle of a word, as *longer, hunger*, tho not alwaies so, for in *danger, stranger, &c.* *n* keeps its own power.

If any be so far prejudiced with the use of the Latin, which alwaies expresses the power of this letter by *n*, and other modern languages, let him look a little higher to the Greek, where he will find three things considerable of this letter. 1. That it is no double consonant, but express with one single character, γ . 2. That it is express not by a letter of a distinct tribe, as in the Latin, but by one of its own fraternity, that is, by a letter formed with the same closure of the organs with itself. 3. That it never goes before any other consonant in that same syllable, but those of its own tribe γ, χ, ζ, ξ , which is according to the true reason and rules of compounding consonants in the end of a syllable, as I shall make appear by and by. The Romans, finding that it was a sonorous letter, reject γ as being a semimute, and substitute for it *n*, agreeing with it formally in that same analogy of sound, but differing from it materially, as being formed by a distinct closure of organs.

Great Vossius may excuse my being so long upon this one letter; for he, after spending a whole chapter upon it, concludes with a protest uncertainty of judgment, whether to make it a single letter, a *sesquilitera*, or a double consonant. I thought once I had been singular in my opinion about it, but afterwards meeting with Doctor Wallis's English Grammar, I perceived that he had given the same account of it long before me.

The semiclose sounds are of two sorts; some of them are formed from

the whole close sounds and are called aspirates, because they are formed by a partial opening of the organs, and sending forth the breath thro the mouth ; hence the number of them are six, *f, th, z,* from *p, t, k,* and *r, th,* as in *that, gh* from the semimutes *b, d, g* ; for there can be no aspirates from *m, n, ug.* 2. That nimble instrument of articulate voice, the top of the tongue, brings forth three more semiclose sounds, *l, r, s,* and so doubles the number of letters formed by the other organs. 1. *L* is formed by a close appulse of the top of the tongue to the palate, the fides not touching, but leaving an open passage, which distinguishes it from *n*, where the appulse makes a perfect closure. 2. The appulse is from the fides of the tongue, the top not touching, but leaving an open passage to force out the breath ; hence is formed the letter *s.* 3. A repeated or multiplied appulse of the tongue to the palate, by a quick motion of trepidation which produces *r.* *S* has affinity to the close mutes, *p, t, k,* and therefore admits of being raised to a semimute, *z,* both of which are capable of aspiration, as the close mutes and semimutes, *sh, zh.* These seem to me to be all the simple consonants in nature perfectly distinct, and to be made use of in a Philosophical Language, for which this was first intended. And I think that this analysis of them from their physical causes is plain and easy, for to pursue all the minute differences of sounds, as it were endless, so were it useless.

I come now to speak of compounding two or more consonants into one syllable, and that two waies, either in the beginning or end of it ; a thing well to be considered by him who undertakes to frame a language by art from the principles of nature, and of no small use in fitting a Grammar for deaf persons.

That I may proceed the more distinctly in this enquiry, I will begin with the definition of a syllable, and passing by several other descriptions, I will keep to that of Priseian and approved by Vossius, as being most full and apposite to my purpose : *Syllaba est vox literalis, quee sub uno accentu et uno spiritu indistincter profertur.* Where I suppose by *sub uno accentu*, and *uno spiritu*, there can be no more than one vowel or diphthong in a syllable, which, as a *terminus communis*, unites the extreme consonants on each side, even as the *copula* unites the subject and the predicate, making one proposition.

My first rule shall be—To speak properly and in a strict sense, there can be no composition of consonants amongst themselves, either in the beginning or end of a syllable, but what is preternatural and inconsistent with the definition of a syllable. Who does not perceive, that even in the composition of mutes and liquids in the beginning of a syllable, as *prat*, *plot*, which of all compositions of consonants is most common and also judged most easy, as not making the preceding vowel long by position, yet I say, even in those it is easy to perceive a *distantia terminorum*, and that they are united by a rapid spirit, as a *terminus communis*, and cannot possibly be otherwise, seeing they are formed by distinct closures of the organs; and therefore there must be a *transitus* from the one to the other, which appears yet much more evident in the end of a syllable, with which kind of composition our English abounds very much, as *table*, *riddle*, *saddle*, *little*, &c.

It is true, in some compositions of consonants, the *transitus* not being from organ to organ, but from one degree of vocality to another, as in *lamp*, *hand*, *ink*, the *transitus* here is so quick, that it may be said to deceive the ears; much like the colours of the rainbow to the eye, as it is in that ingenious description of Arachne's Web.—Ovid. Lib. 6. Met.

*In quo, diversi niteant cum mille colores,
Transitus ipse tamen spectantia lumina fallit;
Usque adeo quod tangit idem est, tamen ultima distant.*

But, passing by the dictates of right reason and art, which certainly have not been followed in the primary institution of any language, unless it be of the Hebrew alone, let us look to see which is the sovereign lawgiver to all languages. And more particularly to the usage of the Greek, which gives laws of Orthography to all the Occidental Languages; and, first, for the compounding of consonants in the beginning of a syllable.

Had the Grecians been as careless of Euphony and polishing their words in the terminations, as they have been in the initial syllables, their language had been as much inferior to some others in Euphony, as now it is esteemed more pleasant and graceful. What more rude sounds, uneasy to be pro-

nounced, and harsh to the ear, than οὐλῶ. ζάω, ξαίνω, χθίῶν, φθίσεις, πτῶσις, ὀνέρος, βδήληγμα, μιῆμα, γνῶσις, κτῆμα, πνάκων, πνεῦμα, θνήσκω, τλήμων, &c. What cause to ascribe this to I am uncertain, whether to the rudeness of their language together with others, in its first origine, or to some modish affectation of times and humors, or more particularly to a poetical humor of fynepizing and contraſting their words, which seems to me moft probable. But this we fee is certain, that they have taken to themſelves ſuch a liberty of compounding conſonants in the beginning of a syllable, that their greatest admirers, the Romans, have forsaken them in this; there ſcarce being any ſuch double conſonants, as any in the fore-mentioned examples in the beginning of a word, in all the Latin Tongue, unleſ it be in ſome few words which are manifeſtly of a Greek origin. They have gone fo far, that almoſt no rule can be formed for their initial syllables, but *quidlibet cum quolibet*. Howbeit, I will endeavor to reduce the uſage of the Greek, in this particular, to ſome general rules.

First, There is no double conſonant to be found in the beginning of a Greek word, but one of them is a lingual; theſe are, *n*, *d*, *t*, *l*, *r*, *s*, *z*, *th*, *ø*, *sh*, *zh*. Hence I obſerve that Voffius goes too far when he bids, in imitation of the Greek, to divide *a-gmen*, *te-gmen*, unleſ he could have produced authority for a ſhort vowel before this poſition, or a word beginning with *gu*, neither of which I think can be found.

2. The liquids, commonly fo called, *l*, *m*, *n*, *r*, add *ng*, never come before other conſonants, or one another in the beginning of a word, except *μνάομαι*.

3. None of the close conſonants,

Labials,	$\left. \begin{array}{l} p, b, m, \\ t, d, n, \end{array} \right\}$
Linguals,	$\left. \begin{array}{l} ng, r, k, \end{array} \right\}$

or their aspirates,

Labials,	$\left. \begin{array}{l} φ, v, \\ θ, th, \end{array} \right\}$
Linguals,	$\left. \begin{array}{l} χ, gh, \end{array} \right\}$

if they be of the fame organ, can be compounded with one another; except *ø* as *ὸνέρος*, *øv* as *θνήσκω*. In theſe negatives, the Latin, and I think other modern languages, do agree with them.

For affirmative rules, the first shall be—The liquids *l r* come frequently after the mutes and femimutes, with their aspirates, as,

πλέω	γλάφω
ποδός	γραῦς
τρίχω	φλέβω
τλῆμα	φρεσέω
κλείω	φρεσέω
κραυγή	θλίβω
βλαττώ	θέω
βρέμων	χλαυστός
δλ-	χλαυστός
δράω	χράουσι.

The rule is univerfally true *de jure*, tho not *de facto*; or, it is true *de generibus singulorum*, tho not *de singulis generum*. Hence, tho there be no δλεῖω, yet analogy would bear it as well as βλέπω or γλάφω. So in Latin, tho there be no words beginning with *tl*, yet *tlarus* would be as analogical as *clarus* or *planus*. So in English, *tlash* were as euphonieek as *plash, clash*.

2. *S*, in the beginning of a word, comes before all kinds of consonants in that same syllable; *i. e.* it is compounded with *genera singulorum*, tho not with *singula generum*.

1. For the mutes, *p t k*, and their aspirates φ θ χ, it is compounded with them all, as, στάω, σύπτω, σκίπτω, σφεῦς, σθενος, σχλῆμα. 2. The femimutes, β, δ, γ, it is only found with β, as σβένημι, and by the Dorick diale&t with δ, as κωμάδων for κωμάζω. 3. Of the fonorous or nafales, μ, γ, γγ, it is found only with μ, as σμέρδω. *S* is not to be found before any of these three consonants in Latin, unlesf it be in words taken from the Greek; and yet our English abounds with examples both of *sm* and *sn*, as *small, smooth, smile, snatch, snow*.

Except from the former rule its two fitter-semiclose linguals, *r l*, before which it never comes in Greek or Latin, tho *sl* frequently in English, as *sleep, slow*, and tho *s* itself come not before *r*, yet its aspirate *sh* is found with *r*, as *shrine, shrewd*.

3. *S*, in the beginning of a word, comes after some both of the mutes and femimutes, *de facto*, and therefore might come after them all, *eodem jure*, ψ, ξ, *i. e.* *ps, ds, ks*. Here it comes after two mutes, *k p*, and one

femimute, *d.* The reaſon in nature were the ſame for *bs*, *gs*, *ts*, in the beginning of a syllable; but *s*, after any other conſonant in the beginning of a syllable, founds harsh and layes a force upon nature. What could induce the Grecians to ſingle out theſe three double conſonants, ψ , ζ , ξ , contraſting them into one ſingle character, and placing them in the alphabet amongſt the ſimple elements of letters, is not eaſy to gueſs. Had they made a more soft and melting found than other double conſonants, this might have paſt for a tolerable reaſon; but the caſe is quite contrary, for they make a stronger poſition after a ſhort vowel than many other double conſonants do: or, if frequency of uſe had been the inducement, this alſo had been tolerable; but even in this they muſt give place to many other double conſonants, unleſs perhaps it may be thought that the frequency of ψ and ξ , in the future tenſes of verbs, might have oceafioned this abbreviation. Voſſius gueſſes at the origin of ψ , that it has been an imitation of the Hebrew \aleph . If he had made ζ and ξ to be of the ſame origin, his conjecture had been by much the more probable, for there is fully as great reaſon for theſe as for that. The affinity of ξ to γ is all one with ψ to γ , for both of them are compounded of *s* following a mute. Again, the affinity of ζ to γ is no leſs, for tho the one be mute, the other femimute, yet they belong both to one organ of formation, which the Hebrews take notice of as the greater affinity; ſo that if an imitation of the Hebrew may paſt for a probable reaſon of this grammatication, it is much more likely that a threefold abbreviation would induce them to this imitation ſooner than a ſingle one, ſpecially conſidering that *s* never follows another conſonant in composition in the beginning of a word, but in theſe three. I might add, that the Hebrew Grammarians will feare allow γ to be a double conſonant, tho I dare not undertake to defend them in this.

My next rule shall be for triple conſonants in the beginning of a word.
1. There can no word begin with three conſonants but where *s* is one. This is not only true in Greek and Latin, but I think alſo in our vulgar European languages. 2. *S* never makes a triple conſonant in the beginning of a word, but with a mute and liquid following, and this but rarely in Greek, as $\sigma\tau\lambda\eta\eta$, $\sigma\tau\lambda\epsilon\gamma\gamma\eta\zeta$, $\sigma\tau\alpha\gamma\alpha\delta\zeta$; fo in Latin, as *ſcribo*, *ſp̄ctus*, *ſtratus*, tho

the composition of *s*, with any either single or double consonant in the beginning of a word, seems to be of no difficult pronouciation. And now I come to double and trible consonants in the end of a syllable.

I think our English Tongue, with its mother Saxon, abounds more with this kind of closure or ending of words with double and trible consonants, than any other common language, which makes us censured by neighbouring nations, by comparing our pronouciation to the barking of dogs; for our words being for the most part monosyllables, and often ending with a harsh collision of double and trible consonants, and admitting no apostrophe, this makes us take the more time, and use the more force to utter them.

1. The most natural and easie composition of consonants, either in the beginning or ending of a syllable, is that of the mutes and semimutes following the sonorous letters of their own respective organs of formation, as in these examples :

mb	<i>lamb, dumb, comb,</i>	nt	<i>ant, hint, hunt,</i>
mp	<i>lamp, imp, lump,</i>	ngg	<i>thing, long, dung,</i>
nd	<i>hand, blind, round,</i>	ngk	<i>think, rank, drunk.</i>

2. The composition of two consonants next for facility to the former, is when the three semiclose lingnals, *l, r, s*, come before other consonants in the end of a syllable. Examples in English are obvious; it is true, not of these three coming before all other letters, yet the reason is the same for all, tho' use be not.

3. *S*, in the end of a word, according to the use of our English, makes a double consonant after any other letter, unless it be after *q, z*. Other double consonants there are in the end of a word, but being very irregular and of a harsh sound, I pass them by, such as, *soft, length, right, apt, &c.*

4. For trible consonants in the end of a syllable, there is none found in any language but where *s* makes one. I know the Dutch write *Handt*, but I suppose they must pronounee either *hand* or *hant*, for a mute and semimute of that same organ are inconsistent sounds. And as for our *strength* and *length*; 1. Tho' they be written with four consonants, yet we

found but two, neither of which can be written in English but with two characters; but, 2dly, I think the most genuine pronunciation of these two words is, as if they were written *strength* and *length*, according to the Northern dialect.

5. And lastly, allowing two *ss* in two distinct places, which often happens, there may be, and are, *de facto*, in English four consonants after a vowel in that same syllable, as in *firsts, thirsts*.

This doctrine of double and triple consonants, so far as concerns the ending of words, has but little place in the learned languages; yet examples are found, both in Greek and Latin, even of triple consonants, as *λάσπης, stirps*. Where, observe that there are no words in Greek ending either in double or triple consonants, but where *s* either virtually or expressly is the last, and but very few in Latin ending in other double consonants; some in *nt*, as *amant, sunt*, some few in *nc*, as *hinc, hunc*, in *st*, as *est, post*.

My last enquiry about double consonants shall be—How many may come together in one syllable? To which I answer—First, If we follow reason and the authority of the ancientest language, there can come no more than two, one before and another after the vowel. 2dly, If we follow the usage of the other two learned languages, Greek and Latin, excluding the letter *s*, there can be no syllable of above four consonants, two before and two after the vowel. 3dly, Admitting *s*, which comes both before and after most letters, there may be a syllable of six consonants, three before and three after the vowel. I grant there is no example found, either in Latin or Greek, of above five consonants, yet there are many examples in both of three consonants in the beginning, as *στρατός, scribo*; so of three in the end, as *οὐεξ, stirps*; whatever is above this, is harsh and barbarous.

I have heard learned men of the Polish nation affirm, that there is a monosyllable of nine letters in that language, the orthography of which I took from the hand of a person of honour of that nation, thus *chrzaszcz*. This word I have often heard pronounced by natives, and have myself been commended by them for my imitation; but to strangers it seems a barbarous sound, and reaches not the expressing of the power of all the letters

with which it is written. Vossius affirms as much of the Duteh. The word he instances in is **t'strengst**. But I am sure if this be allowed for a monosyllable, there may be a monosyllable of eleven letters, according to the analogy both of the Duteh and English; or rather, I may say, that there can be no bounds set to the tongue in this particular. For, first, if **t'strengst**, why not **st'strengst**; for it is clear, even from the same instance, that *s* may come before *t* in that same syllable. If it be said, that the letter *s* cannot be repeated thrice, in distinct places of that same syllable—First, I answer by retorting, much less can *t* be repeated thrice as here; for, laying this one word aside, I think it will be hard either to prove by reason, or to bring another instance out of any language whatever, where a word consisting of three *ttt*, disjoined from one another by the intervention of other letters, is esteemed a monosyllable. 2dly, The analogy of the English allows of such a monosyllable, as *spasms*, *schisms*.

Again, if **ststrengsts**, why not **ststrengsts**, and so *in infinitum*. That *s* after *t* is consistent in the end of a syllable, our English abounds with examples, as *tasts*, *fasts*. But here it is observable, that this composition we admit of, *s* coming both before and after another consonant in the end of a syllable, is very harsh and uneasy, and scarce to be found in any other language. The French make many shifts to avoid the harshness of *s*, either before or after another consonant, and chiefly in the end of a syllable; if *s* go before, they leave it out, as in *haste*, *viste*; if it come after, they leave out the consonant that goes before it, as in *loups*, *animau*. Another thing observable of *s* with its affinis *l*, when they come alone without the implication of other consonants, they are of an easy and graceful pronunciation. Homer seems to have loved them, as in these:

Αλλα συ σησιν εχε φρεσι—
—Ενι φρεσι βαλλετο σησι.

That the press should have stript these broken ends of verses of the unnecessary and troublesome luggage of spirits and accents, is neither the compositor nor the corrector's fault; I am obliged to excuse them and take the fault, if there be any, upon myself, or rather lay it over upon the

author, who, were he alive, he would excuse both me and himself by the use of the times he lived in; and use we know is the supreme law in all languages. But if all this do not satisfy the critical Hellenist, then I must add further, that use in the present case will even dare to appeal to right reason; for whatever may be said for the cumbersome tackling of spirits and accents in prose, yet in a verse accents are downright nonsense, unless it be *tollenda ambiguitatis causa in equivocal words.*

That all other appendages beside the letters are unnecessary and troublesome, I shall instance only in one word, which is so overgrown with the rickets, that the head is much greater than the whole body; for whereas the letters of the word are but three, the other appurtenances of it are five, and had it all that swelling furniture about it in the glossology which it hath in the typology, it would choke one to pronounce it. But he must have more critical ears than mine, that can perceive five distinctions in οξεῖα, which are not to be heard in our English *err.* That this is not a word either made or fought by me, appears by this passage of a common epigram :

εργε ποδ' ασθν
οξεῖα επει εψευσω πατρίδα και γενεταν.

And here I shall take the liberty to go one step further out of my road, by taking notice that the Greeks have lashed out a little too far, in that which is thought to be the greatest grace of their language; that is, their words ending much in vowels and diphthongs, and these frequently making pure syllables, one, two, or more, without the intervention of a consonant. One, two, or at most three, one would think were enough for Euphony; but four, five, or sometimes six in the end of a word, I think is too much, specially if they make so many syllables: ἀγγύες τοῦς sounds well; ἀγγύεις βιβή is yet more soft and melting; and ἀγγύεσσοι βιβῶ sounds high and lofty from the mouth of a poet, and symbolizeth with the more symbolical hemistich preceding it;

Δεινη δε κλαυγγη γενετ' αγγυεσσοι βιβῶ.

But βιβῶ and by a dialysis βιβοῦ, is too soft and lushious. And for οαα

and βερπο, I know not what other censure to pass on them, but that they are childish and ridiculous trauslisms. It is true, that βερπο, in the typology of the word, has its syllables distinct enough, but the best can be said of it will leave them too identical in the Glossology. Again, for αεεε, which is the word of the greatest number of vowels without a consonant, that I have happened to meet with, tho' it be manifestly of a Greek origin, yet I know not where to father it upon any Greek author, *totidem literis et syllabis*; which makes me strange the more to see the grave and manly Roman, who, in his imitation of the effeminate Graeculus, hath with a wonderful judgment, shall I say, or happiness, equally avoided the extremes of too much harshness in the beginning of his words, and too much softness and delicacy in the end of them; yet in this one word to have outdone him in number of vowels, tho' not of syllables.* Ovid is my author for this. Metamorph. Lib. 4.

Nec tenet ΖΖΖ genetrix pulcherrima Circes.

But to return from this digression to another observation upon the letters *l* and *s*. These two letters seem to me to make a great impression upon the body of the French Tongue, as the particles and chiefly the pronouns do in all languages, because of their so frequent use in the *vocabula* of that language. I have often been pleasantly affected to hear two talking French, when the pronominal words recurred often, such as, *ce, cett, c'est, cettui, cettuici, cettuila, lui, celui, icclui, elle, icelle, cellicci, celicee*, &c., and many such like descending from the fruitful stock of *ea* and *la*; for these words coming from a French mouth, make a pretty soft whispering noise affecting the ear pleasantly. Our own English pronominal words are none of the most graceful pronunciation, chiefly because of the so frequent use of *th*, as *thou, thy, that, the, this, those, their*, &c. This makes outlandish men call us *blessi*, the sound of *th* never being heard amongst them but by lispers, who pronounce *s* vitiously by the power of this letter. I will conclude with rectifying an universal mistake of all that have written of Grammar, for want of considering the nature of double consonants. It has past for current amongst all Grammarians, that we are to divide words

in all other languages, following the use of double consonants among the Grecians, as *ma-gnus*, *do-etus*, *le-ctus*, *a-ptus*, and not *mag-nus*, *doc-tus*, *lec-tus*, *ap-tus*. Vossius goes yet further, as I have had occasion to mention before, and bids us divide *se-gmen a-gmen*, tho there be no precedent for this in Greek. One ancient Grammian goes yet a step further, and bids follow this rule even in compounded words, as *o-bruo*, *o-bligo*, which notwithstanding others do except. But Priscian does well refute this author's opinion by this argument, that poets never used these syllables short; so that for the very same reason we must not divide *le-ctus*, *do-ctus*, because they are used still long by position.

Tho this reason be convincing enough, yet there is another reason worthy to be mentioned in this place, which also illustrates and confirms what I have said before, that the primitive words of other languages, excepting the Hebrew, are for the most part monosyllables. In all primitive words, I distinguish between radical and servile letters; the radical part of the word, generally both in Greek and Latin, is effable in one syllable, *amo*, *doeo*; *am* and *doc* are the radical letters, *o* in the one and *eo* in the other being serviles, and so changeable in the oblique inflexion of the words; therefore I think it were reasonable, in dividing the word, to distinguish between what is radical and what is servile.

POSTSCRIPT.

Tho I make no question but I have said as much as may enable any person of ordinary capacity, with extraordinary diligence, to become if not a Didascalocophus at least a Hypodidascalus to some more expert Master, yet my main design being not so much to make every Grammaticaster a Didascalocophus, as to satisfy learned men that Cophology is none either of the ἵεγων ἀδυνάτων, or δυσνοήτων; this has made me the shorter in the practical part. So that any practitioner in this art, not more master of it

than myself, must be beholding to me for some more particular directions. Wherefore if any Philocophus shoud challenge myself to make good the title of my book, let him bring a subje&t duly qualified, male or female, the younger the better, and he shall find me ready to answser his challenge, either personally or by proxy.

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