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SACRATISSIMO DOMINO NOSTRO

C A R O L O

DEI GRATIA, MAĠ. BRITANIÆ,
FRANCIÆ ET HIBERNIÆ REGI:
TERRÆ MARISQ. POTENTISSIMO
PRINCIPI: OCEANI BRITANNICI
AD QUATUOR MUNDI PLAGAS
DISPARTITI IMPERATORI: DOMINO
VIRGINIÆ ET VASTORUM
TERRITORIORUM ADJACENTIUM
ET DISPERSARUM INSULARUM
IN OCEANO OCCIDENTALI.

CHRISTIANÆ FIDEI DEFENSORI,
PACIS INSTAURATORI, PUB.
SECURITATIS AUCTORI
PIO FEL. AUG.

Excl
32
Lauron

NEC-NON

SUB SUI NUMINIS
INFLUENTIA AC CLIENTELA
DUOBUS MAX. MUNDI LUMINARIBUS
PERPETUIS SAPIENTIÆ FLAMMIS
CERTISS. SCIENTIARUM CYNOSURIS
UTRISQ. ANGLIÆ ACADEMIIS
INFIMVS HUMILLIMVS
VERULAMII INTERPRES
HANC PRIMAM INSTAURATIONIS
MAGNÆ PARTEM

D. N. C. Q.

TO THE
P R I N C E
O F
G R E A T B R I T A I N,
FRANCE and IRELAND;
THE
G R O W I N G G L O R Y
O F A
FUTURE AGE.



THE sacrifice of my Devotions in the Dedication of these Labours (*excellent Prince*) had gone a more humble way of Ambition, than through the hands of Kings and Princes, could I afterwards have justified such humiliations. But the Tenure of this work is a Title-Royal, which no lapse of time, nor alteration of language can reverse. In the Original entitled to a King; so continued in the Translation, and so in a direct line descends upon *Your Highness*, as a part of a Royal Patrimony, which I durst not alienate by a lower inscription. The Author is *Sir Francis Bacon*, a name well known in the European World; a learned man, happily the ear-

learned't, that ever lived, since the decay of the Grecian and Roman Empires; when Learning was at a high pitch; and which rise and fell with those Monarchies; for Scepters and Sciences have the same revolutions, the same period. In the vast spaces of time between those and these last Ages, Philosophy hath been, as it were in a slumber; for many centuries of years. For after the Christian Faith grew up, the most Writers betook themselves to Theology, and some mistaking the right limits of Faith and Reason, fell foul upon *Aristotle*, and other Philosophers, as Patriarchs of Heresie, which were the Patrons of Reason. Somewhat awaked from this slumber she was, by the *Arabian* Writers, the School-Doctors, and Spanish Interpreters; made more active by the Chymick Philosophers, but never perfectly recovered until the days of this Author, who is the first that ever joyn'd Rational and Experimental Philosophy in a regular correspondence; which before was either a subtilty of words, or a confusion of matter. He, after he had surveyed all the Records of Antiquity, after the volumes of men, betook himself to the study of the volume of the world; and having conquer'd whatever books possess (his spacious spirit not thus bound) set upon the Kingdom of Nature, and carried that victory very far, and which was more than those victories, himself being mortal, left such laws behind him, as may suffice to subdue the rest, if Princes encourage men, and men be not wanting to themselves. This attempt of his was favour'd by the Stars of his Nativity. For it was his felicity to live in the times of two Great Patrons of Learning, King JAMES, Your High-

ness

To the P R I N C E.

ness Grand-father of blessed memory, and Your Royal Father now Reigning; and it was their glory that he lived in their times; and will be the eternal honour of this Nation, that the *Greatest Kings* and the *Greatest Philosopher* met together in one age, in one Island. By the favour of *his Prince*, who well knew the value of Learning and Learned men, he was raised to the highest dignities in the Civil state; and by his own happy Genius, to the highest degree in the state of Learning; which was the greatest wonder of the two; being such incompatible perfections, and divided, enough to fill up the Sphere of the greatest abilities alive. Yet with great applause he acted both these high parts, of the greatest Scholar, and the greatest States-man of his time: and so quit himself in both, as one and the same Person, in title and merit; became Lord Keeper of the Great Seal of *England*, and of the Great Seal of Nature both at once; which is a Mystery beyond the comprehension of his own times, and a Miracle requires a great measure of Faith in Posterity; to believe it. This is the Author I here present unto *Your Highness*, this his work, which by the powerful influence of Your favour shall prosper, and, it may be, be quickned to the regeneration of another *Phœnix* out of his Ashes, to adorn your World: for it is only the benign aspect, and irradiation of *Princes*, that inspires the Glob of Learning, and makes Arts and Sciences, grow up and flourish. Heaven bless *Your Highness* with blessings on the right hand, and on the left, and make You Heir of all the vertues of your Royal Progenitors, that the Honour of Princes
begun

To the PRINCE.

begun in them, may be continued in Your person; and that a future age may be so blessed in You, as the present is in Your Royal Father, *the Glory of Kings and their Admiration.*

TO
YOUR HIGHNESS

Most humbly devoted

GILBERT WATS.

FA

F A V O U R A B L E
R E A D E R.



THE intended Apologetick, for the Instauration of Sciences, and the justification of this Author, which should have been prefix'd this work, as a preparation thereto; is not publisht. Motives to this resolution, were divers, whereof some are very concerning. Apologeticks for such Authors and such enterprises are entertained with jealousies, as if they threatned an innovation in the state of Learning; by reversing the judgements of Antiquity, and the Placits of the Modern; and by bringing in a new Primum Mobile, into the Intellectual Globe of Sciences, to the subversion of the Arts received. But these are groundless fears, fancied by such, who either understand not the intention of this attempt; or, engag'd in a Professory way, suspect their profit and reputation to be in danger, if such designs should take effect. Our Author protests against such daring vanities, the raising of any new Sect, upon the ruins of Antiquity; and every where endeavours to improve the labours of Ancient and Modern Writers, and so must he do who defends him, if he understands the business he goes about. The point is not, touching what is already done; nor of the Abilities of the Agents; nor of the capacity of their Instruments; which could not be undertaken without emulous comparisons, both of Persons, Actions and Things: but the point is touching propagation and advancement of Knowledges; the improvement, and not the conservation only of the Patrimony of our Ancestors: and that by opening to the understanding a different way, than hath been known to former Ages; and clearing that glass to the letting in of a more plentiful light. The ways and ends of these two knowledges (I mean of what we have, and of what we may have) thus different; and the princi-

To the Reader.

ples upon which they proceed so divers; both may consist without contradictions and confutations; or the invasions upon their distinguish'd rights: and so the propagation of Knowledge, by the assistance, of the Father of Lights, may be pursued, with the reservation of the honour of Ancient and Modern Authors, and the Arts in use, which respecting the end whereto they were instituted, Disputation, Redargution, and the like, are very conducent, and in their way of perfection highly exalted. And this is the first motive of deliberating the publication of my Apologetick, the difficulty of the business. Another is this. The times into which we are fallen, are learned Times, as ever were since the Grecian Philosophers, and, their seconds, the Arabian Writers, which also through the great advantages of the experiments of later Ages, and the directions of Antiquity, in many particulars have out-gone their Predecessors; so as he that dares adventure, as, some do, to intrude unstudied thoughts upon so learned an Age as this is, neither reverences the age as he ought, nor wisely consults his own reputation with Posterity. And as the Times are learned, so (which too frequently falls out) somewhat confident. Great Wits, and which have fortified their conceptions by books and study, are strongly prepossess'd with almost impregnable anticipations; and not so easily induced, as more unconcerned and disengaged natures are; to know or unknow any thing, that either should be farther inquired into, or should be forgotten. And much within these two Orbs our Apology moves; in discovery of Ignorance, and of Error; of what we know not, and of what we should not know. For certainly much knowledge remains yet conceal'd, and the way to this discovery is by foregoing many unprofitable subtilties; and by a learn'd ignorance falling off from many aery speculations to the solid simplicity of the Ancients. Were we to compass a Panegirick in praise of the perfections of the learning of our days; which indeed merits such a sacrifice, the labour were but half what it is, for laudatory hymns seldom come out of season; they need no preparations, and what might be wanting in the weight of speech, would be supplied by an aptitude to accept and believe. But in the business in hand, the
mind

To the Reader.

mind of man, the principal subject to be wrought upon; and her speculations, both which we so admire, are so immur'd and blockt up with corrupt notions, either from the placits of Philosophers, the depraved Laws of Demonstration, or from inherent qualities in the general nature of man, or individuate temperature of particulars; that nothing can be done until these be convinced; at least, subjected to examination: which is another motive that stays me upon the Land. An other Reason (which is the last I will trouble the Reader withall) is this. Time the measure of all our Actions, without whose assistance our best conceptions are Abortives, by the intercurrance of other engagements (which I might have dispenc'd withall, had I rightly understood the servile tenure of secular contracts) hath surpriz'd me. I conceive, which I pronounce with some passion, that a Scholar for his studies had been the master of his own hours; but he that trafficks with the world shall find it otherwise. Time which I presum'd I could command, and stay as I do my Watch, hath commanded me. And these diversions were seconded (Humane Reader) by a sad Accident. It pleas'd God in the heat of my attendance on this business, to take away, by one of the terrors of mortality, the Stone, my dear brother Sir Richard Scot, servant to the most eminent Lord, the Lord Deputy General of Ireland; beloved of his dear Lord to the latest minute of life; honour'd with his presence to the farthest confines of mortality; and there, by his Noble Piety, deliver'd up, with as much solemnity, as a Kingdom could confer, unto the immortality of another World. This deadly shaft passing through him, so wounded me, that I my self was arriv'd within few paces of the land of darkness. In his silent Marble, the best part of that small portion of joy I had in the World; but all my hopes are entomb'd. This pensive casualty so took me off from books and business, as for some months after, I could relish no thoughts but what were mingled with the contemplations of mortality.

Sic fugit intereà fugit irrevocabile tempus.

These were the impediments to my APOLOGETICK;

To the Reader.

which (if what is done be accepted) shall be prefixt the NOV. ORG. For of this Translation this is the first part (Reader.) if it please thee; if it please thee not, the last. But before I take my leave, here are some tacite objections, which I would meet half way, and and so weaken their approaches, lest they fall too heavy upon me. The first is, touching the Division of the first book into Chapters, contrary to the mind of the Author, and the intention of the work. This exception may be thus satisfied, That profit is to be preferred before artificial contrivance, where both cannot so conveniently be had; and to this end, discretion to be followed before rule. Were the Author now alive and his vast designs going on, this alteration had been somewhat bold: but the inimitable Architect now dead, having perfected little more than the outward Courts, as it were, of his magnificent Instauration; and the whole summ of Sciences, and the stock of Arts in present possession, not able to defray the charges of finishing this Fabrick; I thought fit, by compartitions and distributions into several rooms, to improve what we have, to our best advantage, so it might be done without prejudice to the Authors procedure, and apt coherence, which I hope it is: Having respect herein rather to accommodation than decoration; for Houses (as our Author says) are built to live in, and not to look on, and therefore use to be preferred before uniformity. Another exception may be made against the draught of the Platform into Analitick Tables, which seems somewhat pedantick, and against that common rule, Artis est dissimulare Artem. To this I answer thus. Order and dependance is, as it were, the soul of the World, of the Works of Nature and Art, and that which keeps them united; without which all would fall asunder, and become like the first Chaos before the production of light. And of all Methods that ever were, at least that ever came to our hands, our Authors is the most natural, and most dependent. For Truth, as it reflects on us, is a congruent conformity of the Intellect to the Object; and of the different faculties thereof to the difference of things: wherefore the truest Partition of humane Learning, is that, which hath reference to humane faculties; when the Intellectual Globe, and the Globe of the

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To the Reader.

the World, intermix their beams and irradiations in a direct line of projection, to the Generation of Sciences. This our Author hath perform'd to admiration; and in this gone beyond all Antiquity, yet upon their grounds; wherein he can never be out-gone, unless followed by Posterity. The Ancients indeed were men of most profound speculations, but in the delivery of themselves, somewhat involv'd, as appears by Plotinus, Proclus, Trismegistus and others; and many of Platoes School writ Dialogue-wise, which is no doctrinal way. As for Aristotle, his precepts touching Method (if any such book was written) they are perisht, saving where he scatters such rules here and there, which should have been silenced, and are not so well followed by himself. And for the Methods of the Moderns, Ramus and others, by the improvement of German Writers, impair'd; they knit the limbs of knowledge too soon; have bedwarfed Sciences, and are become an Art (as learned Hooker expresses it) which teaches the way of speedy discourse, and restrains the mind of man, that it may not wax over-wise. The Excellency therefore of our Authors Partitions, induced me to these delineations, for their use only, who have not the leisure, or patience to observe it according to the merit; that by this Anatomy, the junctures and arteries, as it were, of this great body might more visibly appear. Another objection is, touching the Allegations in the Margin, contrary to the solemn custom of Antiquity, and the most of graver Authors. For this I had these reasons. It pleas'd our Author, though he was himself a living fountain of Knowledge, and had a wealthy stock of his own, yet to taste of other waters, and to borrow from Antiquity, and to acknowledge such borrowings; He thus naming his Authors, I thought fit to note them. And as he was a man of a most elevated phansie and choice conceptions; so was he in the selection of his Authors, and the passages he pleas'd to make use of: and it is worth the labour to know with whom such great Wits use to converse; to point to the Mines where they dig their Ore; and to the shadows where they repose at noon. And as his selection of Authors was very choice, so was his application of their sayings, very curious; and in a strain beyond the vulgar reach. Places out of Sacred Scriptures are so explained

To the Reader.

cated, so applyed, as you may search all the Commenters that are extant, and not find the like expositions, as you shall find in him. As for humane Authors he betters his borrowings from them; teaching the allegations out of them, a sence above the meaning of him that lent it him; and which he repairs too with double interest for what he borrowed. These considerations invited me to Marginal Citations. These Reasons set apart, I cannot approve this weak ambition; and do, not without censure, read Modern Authors prostitute to humane allegations; as if the Truth they deliver, were to be tryed by voices; or having lost its primitive Innocence, must be cover'd with these fig-leaves; or as if the Authors themselves were afraid that it should make an escape out of their Text, if it were not beset in the Margin with Authorities as with a Watch. The last exception is, touching the Prefaces, and other Introductions prefix'd this work, that make the Gates and Entries so wide, as they seem to invite the City to run away. This is thus answer'd. It must be remembred that this work in the Design was very spacious; and is in the performance of what is done so ample, that when the second and third Parts shall be added, (as added they will be) the Porches and Ingresses, in the judgement of any good Architect, are proportionable enough. And if our Authors rule hold, that every fair Fabrick should have three Courts; a green Court, a second Court more garnisht, and a third to make a square with the Front; then have you here this Epistle as the mean Court; Judgements upon this Author living and dead, as the middle Court; and the Authors own excellent Preface to confront with the work it self. Now I should say something touching Translation; and as it is mine. The very Action is somewhat obnoxious to censure; being of the nature of those, the falling whereof may disgrace more, than the carrying of it through, credit the undertaker. But, besides the conscience of the deed done; for other ends I could not have; (the Author now dead; and alive mihi nec injuriis nec beneficiis notus) and that to be a Translator is more than to be an Author, some such as there be; and that it is no such mean office, to bear a light before a Lord Chancellor of England: I should excuse it, were the example mine: so, writes learned Sa-

To the Reader.

vil ; so, eloquent Sandys ; so, Malvezzi's Noble Interpreter ; with whom conferred I am less than a shadow : So, many able and eminent names of France and Italy, and other Nations ; So the Ancients of former Ages and of all Arguments. • But if any be so solemn, so severe, and of such primitive tastes, they can away with no waters, which come not from the Spring-head ; nor endure to drink of Tiber, that passes through Thames ; They may give over here, if they so please, and proceed no farther. This interpretation was not meant for such fastidious palates, and yet, it may be, for as distinguishing as theirs are. Now if this very action be thus liable to exception, much more must my performance be. Certainly books by Translation commonly take wind in the effusion ; and for strength fall short of their Originals ; as reflexed beams are weaker than direct : but then it must be understood of Originals, truly so. For if a Writer deliver himself out of his Native Language, I see not why a Translator rendring him in it, may not come near him : and in this case, the Author himself is the Interpreter, being he translates his own thoughts, which originally speak his mother tongue. Yet for all this, Errors I know there are, and some lapses, which require a connivence ; and a Reader hath this advantage, that he may stay upon one period, as long as an Interpreter did on one page ; besides his peculiar Genius to some studied passages. Some Errors (passing but a transient eye upon what is done) I see already ; and could note them ; but I would not willingly gratifie some kind of Readers so far. They that are Judicious and Ingenious too (for I would have no Readers that have not these two ingredients in their compositions, though sometimes I name but one, which I would then, should be predominant) will in their judgement find them, and in their mercy pardon them. As for Sophists and Satyrists, a degenerate Race of men, that sit upon the lives and learning of all that write ; who resolv'd to do nothing themselves, may with more security censure others : and them too, who, as Learned Don deciphers them, forbid not books, but men ; damning what ever such a name, hath, or shall write : they are things below the merit of my indignation ; objects of scorn ; which a little slighted, and not inflamed
by

To the Reader.

by opposition, or countenanced to a reply by confutation, will within a while, of themselves, extinguish and vanish: like some dispersed roving winds, which without encounter are dispirited and die. And it concerns me, Courteous Reader, to put on such a confidence as this; for being I am likely to appear in mine own person, as I do now in the person of another; to be too tender-fronted were to invite injuries, and to prostitute such unseasonable modesty to abuse. He that will to sea, must look for some cloudy days; and to be too scrupulous or Ceremonious touching Times or Persons, is the bane of business, and of all well-meant endeavours: according to that of Solomon, *Qui observat ventum non seminat, & qui considerat nubes, nunquam metet.*

TESTI-

T E S T I M O N I E S

C O N S E C R A T E D

To the

M E R I T

O F T H E

I N C O M P A R A B L E P H I L O S O P H E R

Sir F R A N C I S B A C O N,

B Y

Some of the Best-learn'd of this instant Age.



Although *severe Inquisitors of truth*, and such who by their learned Labours stand upon publick Record in the approv'd Archives of Eternity, may, in an humble distance, lay claim and title to that sacred Prerogative—*Ego autem ab homine Testimonium non Capto ; ipsa enim Opera quæ facio testantur de me ;*— yet because such *Great Authors*, in their high flight, are so lessen'd in the air of unfrequented contemplations; and take such unbeaten ways, as they become the *weak wonder* of common Capacities, accusom'd to popular opinions, and authoriz'd Errors : and in this admiring Ignorance, the *prejudicate objects* of Emulation, Envy, Jealousies, and such like impotent passions : It seems (in a sort) necessary, that the way be clear'd before such Writers ; and that they enter the Theatre, as well with the suffrage of *voice* , to gain upon the *will* ; as with the strength of *Reason*, to convince the *Understanding*.

Wherefore, not so much for the honour of this Author, (though that is intended too) as for the aid of some anticipate Readers, not yet manu-missed from a servile belief to the liberty of their own judgements, (such, I mean, as are yet under the minority of an implicate faith,) I thought good to deliver this imperfect list of *Deponents*, which the precipitancy of this Edition, would not permit to fill up with some other *great Names*, both of this Kingdom, and of forreign Nations. What is wanting here to the accomplishment of this *Catalogue*, Time, the *Parent of Truth*, shall consummate.

Le Sieur *Maugars* Counsellor and Secretary to the King of France,

Judgements upon

in the Epistle to his Translation of a Part of this Work, gives our Author this Testimony.

Amongst whom every one knows that Sir Francis Bacon, by many degrees off, holds the first rank, both for the vivacity of his Spirit, eminency of his Learning, Elegancy of his stile. I have studied with diligence all his writings; and presume I may do a performance of some merit and acceptation, in presenting to my Country his Books of the Advancement of Learning, a Work hath not been seen in our Language. This is the Book which I have caused to pass the Seas; not as the gold of the Indies, to cherish vice, and corrupt our Manners; but as a soveraign Plant of singular vertue, to cure the wounds which ignorance and Pedantism have given humane Sciences.

Mr. Peirre D' Ambois. Sr de la Magdelaine, in his just and elegant discourse upon the life of our Author, delivers his censure thus:

Judgement and Memory never met in any man in that height and measure they met in him; so as in short time he became Master of all those Knowledges which are learnt in Schools.

A page after; but as he ever valued himself, rather born for other men, than himself; now that he could not, for want of imployment, any longer endow the publick with his Active perfections; he was desirous at least to become profitable in a Contemplative way, by his writings and by his books, monuments certainly meriting to find entertainment in all the Libraries of the world; and which deserve to be ranged with the fairest works of Antiquity.

The same noble French-man in his Advertisement to our Authors Nat. History thus expresse him.

For this Natural History, where the quality of Metals; the Nature of Elements, the Causes of Generation and Corruption, the divers actions of Bodies one upon another, and such like impressions, are discoursed with such life and light, that he may seem to have learn'd his knowledge even in the School of the First Man. And though herein he may be thought to have pass'd upon the breaches of Aristotle, Pliny and Cardan; yet notwithstanding he borrows nothing from them: as if he had a design to make it appear, that those great men have not so entirely possess'd themselves of this subject, but that there remains much to be discover'd. For my part, though it be far from my intention, to raise the reputation of this Author upon the ruins of Antiquity; yet I think it may be avouched upon the grounds of reason, that in this present Argument he hath some advantage of them: being that the most of the Ancients which have written of things Natural, have satisfied themselves in reporting things, as the information of others hath given them intelligence; and considering, that oftentimes that which is deliver'd them for History, is far esloign'd from all verity; they have chosen rather, by reasons to confirm the resolutions of another, than to make an exact enquiry, and discover themselves. But Monsieur Bacon not relying upon the meer word and credit of such as went before him, will have Experience joyn'd with Reason; and examines the receiv'd principles of the Schools, by the effects of Nature; the speculations of the Intellectual Globe, by the operation

The Lord Verulam.

operations of the Corporal. By this means he hath found out so many rare secrets, whereof he hath bequeath'd us the invention; and made many axioms acknowledged for false, which hitherto have gone current amongst Philosophers, and have been held inviolable.

Tob. Adami, in his Preface to the *Realis Philosophia*, of that excellent Philosopher *Campanella* (who lives to enjoy that Fame, which many eminent for their Learning, rarely possess after death) speaks his opinion thus.

We erect no Sect, establish no Placits of Heresie, but endeavour to transcribe universal and ever-veritable Philosophy out of the Ancient Original Copy of the World: not according to variable and disputable speculations, but according to the Conducture of sense and irrefragable depositions of the Architect himself, whose hands in works, differs not from his word in writing. And if the great Instauration of the deep-mining Philosopher, Francis Bacon, Lord Verulam, Chancellor of England, a work of high expectation, and most worthy, as of consideration, so of assistance, be brought to perfection, it will perchance appear, that we pursue the same ends; seeing we tread the same foot-steps in tracing, and, as it were, bounding nature, by Sense and Experience, &c.

Sr. Tob. Mathews, in his Epistle to the Duke of Florence prefixt his Italic Translation of my Lord Bacon's *Essays*, amongst other Elogies decyphers him thus.

St. Austin said of his illegitimate son, *Horrori mihi erat illud ingenium*, and truly I have known a great number whom I much value, many whom I admire, but none who hath so astonisht me, and, as it were, ravisht my senses, to see so many and so great parts, which in other men were wont to be incompatible, united, and that in an iminent degree in one sole Person. I know not whether this truth will find easie belief, that there can be found a man beyond the Alpes, of a most ready wit; most faithful memory; most profound judgement; of a most rich and apt expression; universal in all kinds of knowledge, as in part may be seen by that rare incomparable piece, the Advancement of Learning, which future Ages shall render in different languages: But be the faith of other Nations what it will in this point, the matter I report is so well understood in England, that every man knows and acknowledges as much, nay, hath been an eye and ear-witnes thereof; nor, if I should expatiate upon this subject, should I be held a flatterer, but rather a suffragan to truth.

Mr. George Sandys in his excellent Commentaries on his inimitable Translation of the stately *Metamorphosis*, rendred in an equal felicity of expression, to the eternal fires of that *sweet-tongu'd Roman*; often cites the judgement of our Author, from whose sentence he never appeals, but rather adores as an Oracle; and in an ingenious acknowledgement of assistance from him, thus delivers him to posterity.

Of Modern writers I have receiv'd the greatest light from Geraldus, Pontanus, Ficinus, Vives, Comés, Scaliger, Sabinus, and the Crown of the later, the Vicount of St. Albans; assisted, though less constantly

Judgements upon

constantly, by other Authors, almost of all Ages and Arguments. Having been true to my first purpose, in making choice, for the most part, of those interpretations, which either bear the stamp of Antiquity, or receive estimation from the honour of the Author.

Marin Mersenne, An able man, but a declar'd adversary to our Authors design (whose Arguments I shall encounter in my Apologick for the *Instaur. of Sciences*) in his Book of the *Verity of Sciences* against the *Scepticks* and *Pyrrhonians*, *Lib. I. Cap. XVI.* acknowledges thus much, which coming from an Adversary is therefore more valid.

Verulam, seems to have no other intention in his New Method, then to establish the Verity of Sciences; wherefore you must not anticipate, as granted, that he makes for you, or that he is of your opinion; he confesses we know little, but he subverts not the Authority of Sense and of Reason, no, he labours to find out proper and proportionable instruments, whereby to conduct the understanding to the knowledge of Nature and her effects.

The Authors Censure upon himself.

For in my judgement, it is a matter which concerns not only the Benefit of others; but our own Repetition also; that no man imagine that we have projected in our minds some slight superficial notion of these Designs; and that they are of the nature of those things, which we could Desire, and which we accept only as good wishes. For they are such as without question, are within the power and possibility of men to compass, unless they be wanting to themselves; and hereof, we for our parts, have certain and evident demonstration; for we come not hither, as Augures, to measure Countries in our mind, for Divinations; but as Captains, to invade them for conquest.

His answer to some Tacite Objections.

I do foresee that many of those things which I shall register as Deficients will incur divers censures; as that some parts of this enterprize were done long ago, and are now extant; others, that they taste of curiosity and promise no great fruit; others, that they are impossible to be compassed by humane industries. For the two first, let the particulars speak for themselves. For the last touching impossibilities, I determine thus. All those things are to be held possible and performable which may be accomplisht by some person, though not by every one; and which may be done by the united labours of many, though not by any one apart, and which may be effected in a succession of Ages, though not in the same Age; and in brief, which may be finisht by the care and charge of the publick, though not by the abilities and industry of private persons. If for all this there be any, who would rather take to himself that of Solomon, *Dicit Piger, Leo est in via*, than that of Virgil

Possunt quia posse videntur —

it is enough for me, if my labours may be esteemed as votes, yet the better sort of wishes: for as it asks some knowledge to demand a Question not impertinent; so it requires some understanding, to make a wish not absurd. *Proem. lib. 2.*



IN HONOREM
ILLUSTRISSIMI DOMINI
FRANCISCI
DE
VERULAMIO

Vice-Comitis S^{ci} *ALBANI*:

Post Editam ab eo **I N S T A U R. M A G.**

Quis iste tandem? non enim vultu ambulat
Quotidiano. Nescis Ignare? audies:
Dux Notionum; veritatis Pontifex;
Inductionis Dominus; & Verulamii;
Rerum Magister unicus, at non Artium:
Profunditatis Pinus; atq; Elegantiæ:
Naturæ Aruspex intimus: Philosophiæ
Ærarium: Sequester Experienciæ,
Speculationisq;: Æquitatis Signifer:
Scientiarum sub pupillari statu
Degentium olim Emancipator: luminis
Promus: Fugator Idolum, atq; Nubium:
Collega Solis: Quadra Certitudinis:
Sophismatum Mastix: Brutus Literarius,
Authoritatis exuens Tyrannidem:
Rationis & sensus stupendus Arbiter;
Repumicator Mentis: Atlas Physicus,
Alcide succumbente Stagiritico:
Columba Noæ, quæ in vetustis Artibus
Nullum locum, requiemve Cernens, præstitit,
Ad se suamq; Matris Arcam regredi.
Subtilitatis terebra; Temporis nepos
Ex veritate matre: Mellis Alveus.

Judgements upon

*Mundiq; & Animarum, sacerdos unicus :
Securis Errorum : inq; Natalibus
Granum Sinapis, acre aliis, Crescens sibi.
O me, propè Lassum ; Juvate Posteris.*

GEOR. HERBERT Orat. Pub.
in Academ. Cantab.

IN HONOREM

EDWARDI HERBERTI

ERRATA

DE

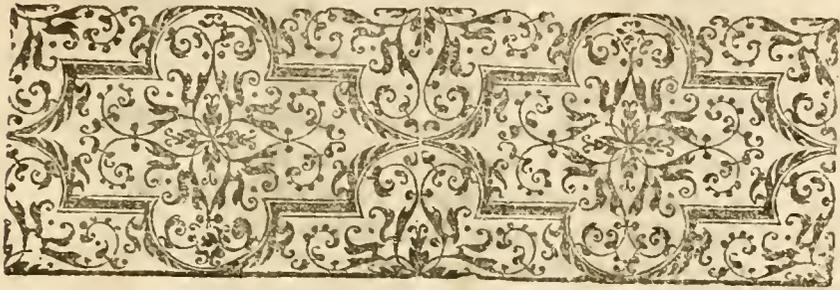
VERILLAMIO

IN HONOREM

EDWARDI HERBERTI

ORATIONIS

MANES



MANES

VERULAMIANI:

SIVE

IN OBITUM

INCOMPARABILIS

FRANCISCI

DE

VERULAMIO, &c.

EPICEDIA.

LNCLYTA Academia CANTABRIGIENSIS, cujus felicitas fuit, *viro* ad salutem scientiarum nato, primas sapientiæ mammæ præbere; ac *Philosophum*, post occasum Græciæ, *maximum*, orbi dare: super funus Alumni sui Lacrymas effudit, doctas ac duraturas mœstias. Ex hoc integro Musarum fonte, modica hæc sed facunda fluenta, collegit *interpres*; ut quod, *viventi*, seculum dederat decus, *gliscente* adhuc invidiâ; & *morienti* dedisse constaret, cessante nunc adulatione. Reliqua sui nominis æternitati consecranda, continuatâ seculorum serie ad ultimas usq; mundi favillas, rependet posteritas: Quis supremam suis laudibus manum imponet, novit tantum *Fundator ille, ac simul everfor Seculorum.*

Adhuc

A Dhuc superbis insolente purpurâ
 Feretri rapinis Inclitos in tot viros
 Sterile Tribunal ? cilicio dicas diem,
 Saccûmq; totam facito luxuriam fori.
 A Themide libra nec geratur pensilis,
 Sed urna, prægravis urna Verulamii.
 Expendat. Eheu! Ephorus haud lancem premit,
 Sed Areopagus; nec minor tantus sophos,
 Quàm Porticus bracchata. Nam vester, scholæ,
 Gemiscit axis, tanta dum moles ruit.
 Orbis soluta cardo litterarii,
 Ubi studio coluit togam & trabeam pari.
 Qualis per umbras Ditis Euridice vagans
 Palpare gestiit Orphæum, quali Orphæus,
 Saliente tandem (vix prius crispâ) Styge,
 Alite fibras lyræ titillavit manu;
 Talis plicata Philologon anigmatis
 Petiit Baconum vindicem, tali manu
 Lactata cristas extulit Philosophia,
 Humiq; soccis reptitantem Comicis
 Non proprio Ardelionibus molimine
 Sarfit, sed Instauravit. Hinc politius
 Surgit cothurno celsiore, & Organo
 Stagirita Virbius reviviscit Novo.

Calpen superbo Abylâmq; vincit remige
 Phæbi Columbus, artibus novis, Novum
 Daturus Orbem; promovit conamina
 Juvenilis ardor, usq; ad invidiam truce
 Fati minacis. Quis Senex vel Hannibal,
 Oculi superstitis timens caliginem,
 Signis Suburram ventilat victricibus?
 Quis Milo inultus quercubus bilem movet,
 Senecta tauro gibba cum gravior premit?
 Dum noster Heros traderet scientias
 Aternitati, prorsus expeditior
 Sui Sepulchri comperitur artifex.
 Placida videtur Ecstasis speculatio,
 Quâ mens tueri volucris Ideas boni
 In lacteos properat Olympi tramites.
 His immoratur sedibus Domestica,
 Peregrina propriis. Redit. Jocularitèr
 Fugax; vagatur rursus, & rursus redit.
 Furtiva tandem serio, se subtrahit
 Totam; gementi, morbido cadaveri
 Sic defuescit anima, sic jubet mori.

Agite lugubres Musæ, & à Libani jugis
 Cumulate thura, Sydus in pyram illius
 Scintillet omne; scelus si accendi rogam
 Regum Prometheo culinari foco.

Manes Verulamiani.

*Et si qua fortè ludat in cineres sacros
Aura petulantior, fugamq; suadeat,
Tunc sietè; lacrymis in amplexus ruent
Globuli sequaces. Denuò fundamine
Ergastuli everso radicitus tui
Evehere fœlix anima, Jacobum pete,
Ostende, & illuc, civicam fidem sequi.
E Tripode juris, dictites oracula
Themidos alumnis. Sic (Beati cœlites)
Astræa pristino fruatur vindice,
Vel cum Bacono rursus Astræam date.*

R. P.

AUdax exemplum quò Mens humana feratur,
Et Sæcli vindex ingeniose tui;
Dum senio macras recoquis fœliciter artes;
Subtrahis & prisco libera colla jugo;
Quo deflenda modo veniunt tua funera? quales
Exposcunt lacrymas; quid sibi fata volunt?
An timuit Natura parens ne nuda jaceret,
Detraxit vestem dum tua dextra sacram?
Ignoti; oculis rerum patuere Recessus,
Fugit & aspectum Rimula nulla tuum?
An verò, Antiquis olim data Sponsa Maritis,
Conjugis amplexum respuit illa novi?
An tandem damnosa piis atq; invida captis,
Corripuit vitæ fila (trabenda) tuæ?
Sic ultra vitreum Siculo ne pergeret orbem
Privati cecidit militis ense Senex.
Tūq; tuos manes idè (Francisce) tulisti,
Ne, non tentandum, perficeretur opus.

Archim.

Sunt qui defuncti vivant in marmore, & ævum
Annosis credant postibus omne suum:
Ære micant alii, aut fulvo spectantur in auro,
Et, dum se ludunt, ludere fata putant.
Altera pars hominum, numerosâ prole superstes,
Cum Niobe magnos temnit iniqua Deos.
At tua cœlatis hæret nec Fama Columnis,
Nec tumulo legitur, Siste viator iter:
Si qua Patrem proles referat, non corporis illa est,
Sed quasi de cerebro nata Minerva Jovis.
Prima tibi virtus monumenta perennia præstat,
Altera, nec citius corruiitura, Libri:
Tertia Nobilitas; ducant jam fata triumphos;
Quæ (Francisce) tui nil nisi corpus habent.

[D]

Utraq;

Manes Verulamiani.

*Utraq; pars melior, Mens & bona Fama supersunt,
Non tanti ut redimas vile cadaver habes.*

T. Vincent. T. C.

MUsæ fundite nunc aquas perennes
In Threnos, Lacrymâsq; Apollo fundat
Quas vel Castalium tenet Fluentum :
Nam Letho neq; convenire tanto
Possint nenia parva, nec coronent
Immensa hæc modicæ sepulchra guttæ :
Nervus ingenii, Medulla suadæ
Dicendiq; Tagus, reconditarum
Et gemma pretiosa Literarum,
Fatis concidit, (heu trium Sororum
Dura stamina) Nobilis Baconus.
O quam te memorem Bacone summe
Nostro carmine! & illa gloriosa.
Cunctorum monumenta sæculorum,
Excusa ingenio tuo, & Minervâ!
Quam doctis, elegantibus, profundis,
Instauratio Magna, plena rebus!
Quanto lumine tineas Sophorum
Dispellit veterum tenebricosas
Ex chao pocreans novam σοφίαν :
Sic ipse Deus inditum sepulchro
Corpus restituet manu potenti :
Ergo non moreris (Bacone) nam te
A morte, & tenebris, & a sepulchro,
Instauratio Magna vindicabit.

R. C. T. C.

PArcite : Noster amat facunda silentia luctus,
Postquam obiit solus dicere qui potuit :
Dicere, quæ stupeat Procerum generosa corona,
Nexaq; sollicitis solvere Jura reis.
Vastum opus. At nostras etiam Verulamius artes
Instaurat veteres, condit & ille novas.
Non quâ majores: Penitos verum ille recessus
Naturæ, audaci provocat ingenio.
Ast Ea, siste gradum, serisq; nepotibus, (inquit,)
Linque quod inventum sæcla minora juvet.
Sit satis, his sese quod nobilitata Juventis,
Jactent ingenio tempora nostra tuo.

Manes Verulamiani.

Est aliquid, quo mox ventura superbiat aetas ;
Est, soli notum quod decet esse mihi :
Sit tua laus pulchros Corpus duxisse per artus,
Integra cui nemo reddere membra queat :
Sic opus artificem infectum commendat Apellem,
Cum pingit reliquam nulla manus Venerem.
Dixit, & indulgens cæco Natura furori,
Præsecuit vitæ Filium Operisq; simul.
At Tu, qui pendentem audes detexere telam,
Solum quem condant hæc monumenta scies.

H. T. Coll. Trin. Socius.

DUm moriens tantam nostris Verulamius Heros
Tristitiam Musis, luminaq; uda facit :
Credimus heu nullum fieri post fata beatum,
Credimus & Samium desipuisse senem.
Scilicet hic miseris, fælix nequit esse, Camænis;
Nec se quàm Musas plus amat iste suas.
At lucrantem animam Clotho imperiosa coëgit
Ad cælum, inuitos traxit in astra pedes.
Ergone Phœbeias jacuisse putabimus artes ?
Atq; herbæ Clarii nil valuisse Dei ?
Phœbus idem potuit, nec virtus absfuit herbis,
Hunc artem, atq; illas vim retinere putes :
At Phœbum (ut metuit ne Rex foret iste Camænis)
Rivali medicam crede negasse manum.
Hinc dolor est ; quod cum Phœbo Verulamius Heros
Major erat reliquis, hæc foret arte minor.
Vos tamen ô, tantum Manes atq; Umbra, Camæna,
Et pænè inferni pallida turba Jovis,
Si spiratis adhuc, & non lusistis ocellos,
Sed neq; post illum vos superesse putem :
Si vos ergo aliquis de morte reduxerit Orpheus,
Istaq; non aciem fallit imago meam :
Discite nunc gemitus, & lamentabile carmen,
Ex oculis vestris lacryma multa fluat.
En quam multa fluit ? veras agnosco Camænas
Et lacrymas, Helicon vix satis unus erit ;
Deucalionæis & qui non mersus in undis
Pernassius (mirum est) hisce latebit aquis.
Scilicet hic periit, per quem vos vivitis, & qui
Multâ Pierias nutriit arte Deas.
Vidit ut hic artes nullâ radice retentas,
Languere ut summo semina sparsa solo ;
Crescere Pegaseas docuit, velut Hasta Quirini
Crevit, & exiguo tempore Laurus erat.

Manes Verulamiani.

*Ergo Heliconiadas docuit cum crescere divas,
Diminuent hujus secula nulla decus.
Nec ferre ulterius generosi pectoris æstus
Contemptum potuit, Diva Minerva, tuum.
Restituit calamus solitum divinus honorem,
Dispulit & nubes alter Apollo tuas.*

*Dispulit & tenebras sed quas obfusca vetustas,
Temporis & prisca lippa senectæ tulit ;
Atq; alias methodos sacrum instauravit acumen,
Gnosiaq; eripuit, sed sua fila dedit.
Scilicet antiquo sapientium vulgus in ævo
Tam claros oculos non habuisse liquet ;
Hi veluti Eoo surgens de littore Phœbus,
Hic velut in mediâ fulget Apollo die :
Hi veluti Typhis tentârunt æquora primum,
At vix deseruit littora prima ratis,
Pleiadas hic Hyadasq; atq; omnia sidera noscens,
Syrtes atq; tuos, improba Sylla, canes ;
Scit quod vitandum est, quo dirigat æquore navem,
Certius & cursum nautica monstrat acus :
Infantes illi Musas, hic gignit adultas ;
Mortales illi, gignit at iste Deas.
Palmam idè reliquis Magna Instauratio libris
Abstulit, & cedunt squalida turba sophi.
Et vestita novo Pallas modo prodit amictu,
Anguis depositis ut nitet exuviis.
Sic Phœnix cineres spectat modò nata paternos,
Æsonis & rediit prima juvena senis.
Instaurata suos & sic Verulamia muros
Fæctat, & antiquum sperat ab inde decus.*

*Sed quanta effulgent plus quam mortalis ocelli
Lumina, dum regni mystica sacra canat ?
Dum sic nature leges, arcanâq; Regum,
Tanquam à secretis esset utrisque, canat :
Dum canat Henricum, qui Rex, idemq; Sacerdos,
Connubio stabili junxit utramq; Rosam.*

*Atqui hæc sunt nostris longè majora Camænis,
Non hæc infelix Granta, sed Aula sciat :
Sed cum Granta labris admoverit ubera tantis
Jus habet in laudes (maxime Alumne) tuas.
Jus habet, ut mæstos lacrymis extingueret ignes,
Possit ut è medio diripuisse rogo.
At nostræ tibi nulla ferant encomia Musæ,
Ipse canis, laudes & canis inde tuas.
Nos tamen & laudes, quâ possumus arte, canemus,
Si tamen ars desit, laus erit iste dolor.*

Manes Verulamiani.

*Sic cadit Aonii rarissima Gloria cœtus ?
Et placet Aoniis credere semen agris ?
Frangantur Calami, disrumpanturq; libelli,
Hoc possint tetricæ si modo jure Dex.
Heu quæ lingua silet, quæ jam facundia cessat,
Quò fugit ingenii Nectar & Esca tui ?
Quomodo Musarum nobis contingit Alumnis
Ut caderet nostri præses Apollo chori ?
Si nil cura, fides, labor, aut vigilantia possint,
Siq; feret rapidas, de tribus una, manus ;
Cur nos multa brevi nobis proponimus ævo ?
Cur putri excutimus scripta sepulta situ ?
Scilicet ut dignos aliorum à Morte labores
Dum rapimus, nos Mors in sua jura trahât,
Quid tamen incassum nil proficientia fundo
Verba ? quis optabit, te reticente, loqui ?
Nemo tuum spargat violis fragrantibus urnam,
Nec tibi Pyramidum mole sepulchra locet ;
Nam tua conservant operosa volumina famam,
Hoc satis, hæc prohibent te monumenta mori.*

Williams.

ORdine sequeretur descriptio Tumuli VERULAMIANI, monumentum Nobiliss. MUTISII, in honorem domini sui constructum ; quâ pietate, & dignitatem Patroni sui, quem (quod rari faciunt, etiam post cineres Coluit) consuluit ; Patriæ suæ opprobrium diluit ; sibi nomen condidit. Busta hæc nondum in vultu Interpres, sed invisurus : Interim Lector tua cura Commoda, & abi in rem tuam.

*Crescit occulto velut Arbor ævo
Fama BACONI.——*

FRAN-

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FRANCISCUS

BARO DE VERULAMIO

Vice-Comes S^{cti} ALBANI.

ALMÆ MATRI INCYTÆ

Inclytæ Acad.

Academiæ.

CANTABRIGIENSI. S.

OXONIENSI. S.

DEbita Filii qualia possum
perfolvo; quod vero fa-
cio, idem & vos hortor, ut *Aug-
mentis Scientiarum* strenuè incum-
batis: & in Animi modestia liber-
tatē ingenii retineatis: Neq;
talentum à veteribus concredi-
tum in sudario reponatis. Affu-
erit proculdubiò & affulserit Di-
vini Luminis Gratia, si humilia-

Cum *Almæ Matri* meæ in-
clytæ *Academiæ Cantabri-
giensi* Scripserim, deessem sanè
officio, si simule Amoris pignus
forori ejus non deferrem. Sicut
autem eos hortatus sum, ita &
vos hortor ut *Scientiarum Aug-
mentis* strenuè incumbatis, &
veterum labores, neq; nihil, neq;
omnia esse putetis; se vires eti-

tâ & submissâ *Religioni Philosophia*
clavibus sensûs legitimè & dex-
trè utamini : & amoto omni con-
tradictionis studio , Quisq; cum
alio , ac si ipse secum disputet ,
Valete.

am proprias modeste perpenden-
tes, subinde tamen experiamini ,
omnia cedent quam optimè; si
Arma non alii in alios vertatis sed
junctis copiis in Naturam rerum
impressionem faciatis, sufficit quip-
pe illa Honori & Victoriæ, *Valete.*

FRAN-

FRANCIS Lord VERULAM

Consulted thus,

And thus concluded with Himself; the publication whereof he conceiv'd did concern the present and future AGE.

Seing it was manifestly known unto him, that humane understanding creates it self much trouble; nor makes an apt and sober use of such Aids, as are within the Command of Man; from whence infinite ignorance of Things; and from the ignorance of Things, innumerable disadvantages; his opinion was, that with all our industry we should endeavour, if happily that same Commerce of the Mind and of Things (than which a greater blessing can hardly be found on Earth, certainly of earthly Felicities) might by any means be entirely restored; at least brought to terms of nearer correspondence. But that Errors, which have prevailed, and would prevail for ever, one after another, (if the mind were left free to it self) should rectifie themselves, either by the inbred power of the understanding, or by the aids and assistances of Logick, there was no hope at all; because that the Primitive Notions of Things, which the mind with a too facile and supine attractive faculty receives in, treasures up and accumulates, from which all the rest are derived, are unsound, confused, and rashly abstracted from things. The like luxuriant vanity and inconstancy there is in the second and sequent Notions; whence it comes to pass, that all that humane Reason which we employ, as touching the Inquisition of things, is not well digested and built; but like some magnificent Pile without foundation. For whilst men admire and celebrate the counterfeit forces of the mind; her true powers which might be raised (were right directions administered, and she taught to become obsequious to things; and not impotently to insult over them) they pass by and lose. This one way remaineth that the business be wholly

[E] reattempted

reattempted with better preparations; and that there be throughout, An Instauration of Sciences and Arts, and of all Humane Learning rais'd from solid foundations. And this, though it may seem in a sort an infinite enterprize, and above mortal abilities, yet the same will be found more sound and advis'd, than those performances which hitherto have been atchieved: for in this there is some issue; but in the endeavours now undertaken about Sciences, a perpetual Wheeling, Agitation and Circle. Neither is he ignorant how unfrequented this Experience is, how difficult and incredible to perswade a belief; yet he thought not to desert the design, nor himself; but to try and set upon the way, which alone is pervious and penetrable to the mind of Man. For it is better to give a beginning to a thing which may once come to an end, than with an eternal contention and study to be enwrapt in those mazes which are endless. And the ways of Contemplation for the most part resemble those celebrated ways of Action; the one, at the first entrance hard and difficult, ends in an open plain; the other at first sight ready and easie, leads into by-ways and down-falls: And being he was uncertain when such considerations should hereafter come into any man's mind, induced especially from this argument, that there hath none hitherto appear'd, who hath applied his mind to such cogitations, he resolv'd to publish, separately, the First parts as they could be perfected. Neither is this an ambitious but sollicitous festination; that if in the mean space he should depart this mortal station; there might yet remain a designation and destination of the thing he comprehended in his mind; and withall some Demonstration of his sincere and propense affection to promote the good of Mankind. Truly he esteemed other ambition whatsoever, inferior to the business he had in hand: For either the matter in consultation, and thus far prosecuted, is nothing; or so much as the conscience of the merit it self, ought to give him contentment without seeking a recompence from abroad.

FRANCIS Lord VERULAM
His great Instauration.

The PREFACE.

Of the State of Learning, that it is not Prosperous, nor greatly Advanced; and that a far different way, than hath been known to former Ages, must be opened, to man's Understanding; and other Aids procured; that the Mind may practice her own power the nature of things.

IT seems to me, that men neither understand the Estate they possess, nor their Abilities to purchase: but of the one to presume more; of the other, less, than indeed they should. So it comes to pass, that over-prizing the Arts received, they make no farther Inquiry; or undervaluing themselves, more than in equity they ought, they expend their Abilities upon matters of slight consequence, never once making experiment of those things which conduce to the summ of the business. Wherefore, *Sciences also have, as it were, their Fatal Columns*; being men are not excited, either out of Desire or Hope, to penetrate farther. And seeing *the Opinion of Wealth is one of the cheif causes of Want*; and that out of a confidence of what we possess in present, true assistances are despised for the future, it is expedient; nay, altogether necessary, that the excessive Reverence and Admiration conceived of those *Sciences*, which hitherto have been found out, should in the Front and Entrance of this work, (and that roundly and undissemblingly) by some wholesome premonition, be taken off, lest their Copy and Utility be too much Magnified and Celebrated. For he that

[E 2]

surveys

surveys with diligence all the variety of Books, wherein *Arts* and *Sciences* triumph; shall every where find infinite repetitions of the same matter, for manner of Delivery divers, but for Invention stale and preoccupate; so as what at first view seem'd numerous, after examination taken, are found much abated. § As for profit, I may confidently avouch it, That the wisdom we have extracted, chiefly from the Grecians, seems to be a Child-hood of Knowledge, and to participate that which is proper to children, namely, *that it is apt for talk; but impotent and immature for propagation*: for it is of Controversies rank and fertile, but of works barren and fruitless. So that the Fable and Fiction of *Scylla*, seems to be a lively Image of the *State of Learning*, as now it is, which for the upper parts had the face and countenance of a comely Virgin; but was from the womb, downward circled and enwrapt with *barking Monsters*. So the *Sciences* wherein we are trained up, contain in them certain Generalities specious and plausible, but when you descend unto particulars, as to the Parts of Generation, expecting solid effects, and substantial operations, then, Contentions and Barking Altercations arise, wherein they close, and which supply the place of a fruitful womb. § Again, if these kinds of Sciences were not altogether a mere lifeless Thing, methinks it should not have fallen out, which now for many Ages hath continued, that *they* should thus stand at a stay, in a manner immoveable in their first Footings, without any *Augmentation* worthy the Race of Mankind, in such a dull Improficiency, that not only Assertion remains Assertion, but Question rests still Question, which by Disputes is not determined, but fixt and cherish'd: and all Tradition and Succession of Discipline delivered from hand to hand, presents and exhibits the Person of Teacher and Scholar, not of inventor, or of one should add something of note to what is invented. § But in Arts Mechanical we see the contrary hath come to pass, which as if they were inspired by the Vital breath and prolifick influence of a thriving Air, are daily *Propagated* and *Perfected*; and which in their first Authors appear'd, for the most part rude and even burthensome and Formless, have

afterward

afterward acquir'd new-refin'd vertues, and a certain apt Propriety and useful Accommodation, so infinitely fruitful, that sooner may mens studies and desires languish and change, than these *Sciences* arive at their full height and perfection. § Contrariwise *Philosophy*, and *Sciences Intellectual*, like *States* are ador'd and celebrated, but nothing *Advanc'd*; nay, commonly of most vigor in their first Author, and by Time Degenerate and become embas'd. For since the time men became *devoted*, and as (*Pedary Senators*) resigned over to the Placits and Definitions of one, they do not add any *Amplitude to Sciences*, but are wholly taken up in a servile duty of *Polishing or Protecting* certain Authors. § And let no man here alleage, that *Sciences* growing up by degrees, have at length arrived to a just period or perfect Stature, and so (as having filled up the just spaces of *Augmentation*) have settled and fixt themselves in the works of some few Authors; and now that nothing more accomplisht can be found out, there remains no more to do, but that the *Sciences* already extant be improved, and adorned. Indeed it could be wisht that the *state of Learning were thus prosperous*; but the very truth is, these mancipations and servile resignations of *Sciences*, is nothing else but a peccant humour, bred out of daring lust and confidence in some few, and a languishing sloth and Pusillanimity in the rest. For when *Sciences* (for some parts it may be) have been tilled and laboured with diligence, then perchance hath there risen up some bold-undertaking wit, for Compendious brevity of Method popular and plausible, who in shew hath constituted a *Science*, but indeed depraved the *Labours of the Ancients*: Yet these Abridgments find acception with Posterity, for the expedite use of such a work, and to avoid the trouble and impatience of a new *Inquiry*. § And if any stand upon *Consent now inveterate*, as the Judgment and test of Time, let him know he builds upon a very deceivable and infirm Foundation. Nor is it, for the most part, so revealed unto us, what in *Arts* and *Sciences* hath been discovered and brought to light in divers ages, and different Regions of the World; much less what hath been experimented, and seriously laboured by particular

Persons

Persons in private ; *For neither the Births, nor the Abortions of Time have been Registred.* § Nor is Consent it self, nor the long continuation thereof, with such reverence to be adored : for however there may be many kinds of *States in Civil Government* ; yet the *State of Sciences is but one*, which always was, and so will continue, *Popular* ; and with the People the *Disciplines* most in request are either *Pugnacious* and *Polemical* ; or *Specious* and *Frivolous* ; namely such as either *illaqueate* or *allure the assent*. Wherefore without question, the greatest Wits in every age have been over-born, and in a sort tyrannized over, whilst men of Capacity and Comprehension above the vulgar, (yet consulting their own Credit and Reputation) have submitted themselves to the over-swaying Judgement of *Time* and *Multitude*. Therefore if in any *Time* or *Place*, more profound Contemplations have perchance emerged and revealed themselves, they have been forthwith tost and extinguisht by the Winds and Tempests of *Popular opinions* : so that *Time like a River carries down to us that which is light and blown up ; but sinks and drowns that which is weighty and solid.* § Nay, the very same Authors, who have usurpt a kind of *Dictature in Sciences*, and with such confidence past censure upon matters in doubt, have yet (the heat once over) in the *Intervals*, from these peremptory fits of Asslevation, changed their note, and betaken themselves to complaints, upon the *subtily of Nature*, the *secret Recesses of Truth*, the *Obscurity of Things*, the *Implication of Causes*, the *Infirmity of Mans Discerning Power* : Yet nothing the more modest for all this, seeing they chuse rather to charge the Fault upon the *common condition of Man and Nature*, than to acknowledge any Personal deficiencie in themselves. Yea, it is a thing usual with them, that what they cannot compass by *Art*, their way applied, to conclude the same impossible to be attained by the same *Art* : and yet for all this, *Art* must not be condemned, being she is to examine and judge ; wherefore the aim and intention of such accusations is only this, *That Ignorance may be delivered from Ignominy.* § So likewise what is already commended unto us, and entertained hitherto, is for most part such a kind of *Knowledge*, as is
full

full of Words and Questions ; but barren of Works and real Improvements ; for *Augmentation* backward and heartless ; pretending perfection in the whole, but ill-filled up in the Parts ; for choice Popular, and of the Authors themselves suspected, and therefore fortified and countenanced by artificial evasions. § And the Persons who have entertained a design to make trial themselves, and to give some *Advancement* to *Sciences* , and to *Propagate* their *bounds*, even these Authors durst not make an open departure from the Common received Opinions ; nor visit the Head-springs of Nature, but take themselves to have done a great matter, and to have gained much upon the Age, if they may but *interlace*, or *annex* any thing of their own ; providently considering with themselves, that by these middle courses, they may both conserve the *modesty* of *Assenting* ; and the *liberty* of *Adding*. But whilst they thus cautiously conform themselves to Opinions and Customs, these *Plausible moderations*, redound to the great prejudice and detriment of Learning ; For *at once to Admire and go beyond Authors* , are habits seldom compatible ; but it comes to pass here after the manner of *Waters*, which will not ascend higher than the level of the first *Spring-head*, from whence they descend ; wherefore such writers amend many things, but promote little or nothing, making a Proficiency in *Melioration*, not in *Augmentation*. § Neither hath there been wanting *undertaking Spirits* , who with a more resolute confidence, presuming nothing yet done, take themselves to be the men, must rectifie All ; and employing the strength of their wits in crying down, and reversing all former judgements, have made passage to themselves, and their own *Placits* ; whose busie Clamor, hath not much advanced *Knowledge*, since their aim and intention hath been, not to enlarge the *bounds* of *Philosophy* and *Arts*, by a *sincere* and *solid Enquiry* ; but only to change the *Placits*, and translate the Empire of *Opinions*, and settle it upon themselves, with little advantage to *Learning* ; seeing amongst opposite *Errors*, the *Causes* of *Erring* are commonly the same. § And if any unconcerned natures, not mancipate to others, or their own opinions, but affecting liberty, have been so far animated, as to desire

desire that others together with themselves, would make farther *Inquiry*; these surely have meant well, but performed little, for they seem to have proceeded upon probable grounds only, being wheeled about in a vertiginous maze of Arguments, and by a promiscuous *license of Inquiry*, have indeed loosned the sinews of *severe Inquisition*: nor hath any of all these with a just patience, and sufficient expectance attended the *Operations of Nature*, and the *successes of Experience*. § Some again have embark'd themselves in the *Sea of Experiments*, and become almost Mechanical; but in the *Experience* it self, they have practis'd a roving manner of *Inquiry*, which they do not in a regular course constantly pursue. § Nay, many propound to themselves, certain petty Tasks, taking themselves to have accomplisht a great performance, if they can but extract some one Invention by a manage as poor as impertinent; for none rightly and successfully search the nature of any thing to the life in the Thing it self; but after a painful and diligent variation of Experiments, not breaking off there, proceeds on, finding still emergent matter of farther *Discovery*. § And it is an Error of special note, that the industry bestowed in Experiments, hath presently, upon the first access into the Business, by a too forward and unseasonable Desire, seised upon some design'd operation; I mean sought after, *Fructifera non Lucifera*, *Experiments of Use* and not *Experiments of Light and Discovery*: not imitating the divine method which created the first day *Light* only, and allowed it one entire Day, producing *no Materiate work the same day*, but descended to their Creation the days following. § As for those who have given the preeminence unto *Logick*, and are of opinion that the surest Guards for *Sciences* must be procur'd from *thence*; they have truly and wisely discerned, that the mind of man, and Intellectual Faculty left unto it self, may deservedly be suspected. But the remedy is too weak for the disease, and is it self not exempt from *Distemperature*; for the *Logick* in force, though it may be rightly accommodated unto *Matters Civil and Popular Sciences*, which consist in *Discourse* and *Opinion*; yet it comes far short of penetrating the *subtilty of Nature*; and

and undertaking more than it can master, seems rather to establish and fix Errors than to open a way to Truth. § Wherefore to recollect what hath been said, it seems that neither *Information from others*, nor *mens Inquiries touching Sciences*, have hitherto successfully shined forth, especially seeing there is so little certainty in *Demonstration* and *Infallibility* of Experiments thus far discovered. And the Fabrick of the Universe to the contemplative eye of the Mind, for the frame thereof, is like some Labyrinth or intricate Maze, where so many doubtful passages; such deceivable resemblances, of Things and Signs; such oblique and serpentine windings, and intricate knots of Nature every where present themselves, as confounds the understanding. And withall, we must continually make our way, through the woods of Experiences, and particular Natures, by the uncertain Light of Sense, sometimes shining, sometimes shadowed: yea, and the guides, which (as hath been toucht) offer their assistance, they likewise are entangled, and help to make up the number of Errors, and of those that Err. In matters of such perplext difficulty, there is no relying upon the *Judgement of men* from their own abilities; or upon the *Casual Felicity of Particular events*; for neither the *capacity of Man*, how excellent soever; nor the *chance of Experience*, never so often iterated and essayed, is of force to conquer these Mysteries: we must march by line and level, and all the way, even from the first perception of Senses, must be secured, and fortified by a certain Rule, and constant Method of proceeding. § Yet are not these things so to be understood, as if, in so many Ages, and so much Industry, nothing at all hath been performed to purpose; nor is their any cause why it should repent us of the *Discoveries* already made; for certainly the Ancients, in those speculations which consist in strength of Wit, and abstract Meditation, have approved themselves men of admirable comprehensions: But as in the *Art of Navigation*, the men of former Ages, directing their course by observation of Stars only, could edge along the coast of the known Continent, and it may be, cross some narrow Seas or the

Mediterranean ; but before the Ocean could be thus commanded, and the Regions of the new world discovered, it was requisite that the use of the *Mariners Needle*, as a more sure and certain guide should be first found out ; even so what discoveries soever have been hitherto made in *Arts* and *Sciences*, they are of that quality, as might have been brought to light by Practice, Meditation, Observation and Discourse, as things nearer the senses, and for most part, under the command of common Notions ; but before we can make our approaches, to the remote and hidden secrets of Nature, it is necessarily requisite, that a better and more perfect use, and practick-operation of the Mind and Understanding Faculty be introduc'd. § As for us, surely we, (vanquish'd with an immortal love of Truth) have expos'd our selves to doubtful, difficult and desert Paths ; and by the protection and assistance of the Divine Power, have born up and encouraged our selves against the violent Assaults and prepared Armies, as it were, of Opinions, and against our own private and inward hesitations and scruples, and against the clouds and darkness of Nature, and every where flying fancies ; that so we might procure the present and future Age more safe and sound Indications and Impressions of Truth. If in this high and arduous attempt, we have made any *Proficiency*, surely by no other means have we cleared our selves a way, than by a sincere and just *humiliation of the spirit of Man, to the laws and operations of Nature*. For all they that went before us, who applied themselves to the finding out of *Arts*, casting a transient eye upon Things, Examples, and Experience, have presently (as if Invention were nothing else but a meer Agitation of Brain) invoked in a manner their own spirits, to divine, and utter Oracles unto them : but we being chastely and perpetually conversant with the operations of Nature, divorce not the Intellect from the Object farther than that the Images and Beams of things (as in sense) may meet and concentrate ; by which manner of proceeding, there is not much left to the strength and excellency of Wit. The same submission of spirit we have practis'd in discovery, we have followed in delivery :

Nor

Nor have we endeavour'd to set off our selves with Glory; or draw a Majesty upon our Inventions, either by Triumphs of Confutations, or Depositions of Antiquity; or an usurpation of Authority; or the vail of Obscurity; which are Arts he may easily find out, whose study is not so much the Profit of others, as Applause to himself. I say we neither have practis'd, nor go we about, by force or fraud to circumvent mens Judgements, but conduct them to the things themselves, and to the league and confederacy of things, that they may see what they have, what they reprehend, what they add and contribute to the Publick. And if we have been too credulous, or too dormant, & not so intentive upon the matter, or languisht in the way, or broken off the thread of the *Inquiry*, yet notwithstanding we present things after such a manner open and naked, that our Errors may be detected and separated before they can spread themselves, or insinuate their contagion into the mass of Sciences; and after such a Method as the continuation of our labours, is a matter facile and expedite. By this means we presume we have establish'd for ever, *a true and legitimate Marriage, between the Empirical and Rational faculty*; whose fastidious and unfortunate Divorce and Separation, hath troubled and disorder'd the whole Race and Generation of Man-kind. § And seeing these performances are not within the compass of our meer natural Power and command, we do here, in the Access to this work, *Pour forth humblest and most ardent supplications to God the Father, God the Word, God the Spirit, that they being mindful of the Miseries of Man-kind, and of the Pilgrimage of this life, wherein we wear out few and evil days, they would vouchsafe to endow Man-kind, by my hand, with new Donatives.* And moreover; we humbly pray, that Humane knowledges, may no way impeach, or prejudice Divine Truths; nor that from the disclosing of the ways of sense, and the letting in of a more plentiful Natural Light, any mists of Incredulity or clouds of Darkness arise in our minds, touching Divine Mysteries; but rather that from a purified Intellect, purged from Fancies and Vanity; and yet yielded and absolutely rendred

Philo. Jud.

PROV. 25.

up to *Divine Oracles*; the *Tributes of Faith* may be rendered to *Faith*. In the last place, that the *venome of knowledge* infused by the *Serpent*, whereby the *mind of man* is swelled and blown up, being voided; we may not be too *aspiringly wise*, or *above sobriety*, but that we may improve and propagate *Verity in Charity*. § Now we have performed our vows to heaven, converting our selves to men; we admonish them somethings that are *Profitable*, and request of them some things that are *equal*. First we admonish (which thing we have also prayed for,) that we keep humane *Reason* within due *Limits* in matters *Divine*, and *Sense* within compass: For *sense like the Sun*, opens and reveals the face of the *Terrestrial Globe*, but *shuts up and conceals the face of the Celestial*. Again, that men beware that in flight from this error, they fall not upon a contrary extreme, of *too much abasing Natural Power*; which certainly will come to pass, if they once entertain a conceit, that there are some *secrets of Nature* separate and exempt, as it were by *injunction*, from *Humane Inquisition*. For it was not that *pure and immaculate Natural Knowledge*, by the light whereof *Adam* gave names unto the *Creatures*, according to the propriety of their *Natures*, which gave the first motion and occasion to the *Fall*; but it was that *proud and Imperative Appetite of Moral Knowledge*, defining the laws and limits of *Good and Evil*, with an intent in man to revolt from *God*, and to give laws unto himself, which was indeed the project of the *Primitive Temptation*. For, of the knowledges which contemplate the works of *Nature*, the holy *Philosopher* hath said expressly; *That the glory of God is to conceal a thing; but the glory of the King is to find it out*; as if the *Divine Nature*, according to the innocent and sweet play of *Children*, which hide themselves to the end they may be found, took delight to hide his works, to the end they might be found out; and of his indulgence and goodness to mankind, had chosen the soul of man to be his *Play-fellow* in this game. § In summ, I would advise all in general, that they would take into serious consideration the true and *Genuine ends of knowledge*; that they seek it not either for *Pleasure*, or *Contention*, or *Con-*
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tempt of others, or, for Profit, or Fame, or, for Honour and Promotion; or such like adulterate or inferior ends: but for the merit and emolument of Life, and that they regulate and perfect the same in charity: For the desire of Power, was the fall of Angels; the desire of Knowledge, the fall of Man; but in charity there is no excess, neither Men nor Angels ever incurred danger by it. § The Requests we make are these; (To say nothing of our selves touching the matter in hand) we Request thus much, That men would not think of it as an opinion; but as a work, and take it for Truth, that our aim, and ends is not to lay the foundation of a Sect or Placit, but of Humane Profit and Proficiency. § Again, that respecting their own Benefit, and putting off Partialities and Prejudices, they would all contribute in one for the publick Good: and that being freed and fortified by our Preparations and Aids, against the Errors and Impediments of the ways, they likewise may come in, and bear a part in the burden, and inherit a portion of the Labours that yet remain behind. § Moreover that they chear up themselves, and conceive well of the enterprize; and not figure unto themselves a conceit and fancy, that this *Our Instauration is a matter infinite, and beyond the power and compass of Mortality*; seeing it is in truth the right and legitimate end and period of *Infinite Errors*; and not unmindful of Mortality, and Humane Condition, being it doth not promise that the *Design* may be accomplisht within the Revolution of an Age only, but delivers it over to Posterity to Perfect. In a word, *it seeks not Sciences arrogantly in the cells of man's wit, but submissively in the greater world: And commonly, Empty things are vast and boundless, but Solids are contracted and determined within a narrow compass.* § To conclude, we thought good to make it our last suit, (lest peradventure through the difficulty of the Attempt, any should become unequal Judges of our Labours) that men see to it, how they do, from that which we must of necessity lay down as a ground (if we will be true to our own ends) assume a liberty to censure, and pass sentence upon our labours; seeing we reject all this *premature and Anticipated hu-*
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mane Reason, rashly and too suddenly departed from Things, (as touching the Inquisition of Nature) as a thing various, disordered and ill-built: Neither in equity can it be required of us, to stand to the Judgement of that Reason, which stands it self, at the Bar of Judicature.

The

The Distribution of the Work into Six Parts.

- P. I. PARTITIONES SCIENTIARUM, Or a summary Survey and partition of Sciences.
- P. II. NOVUM ORGANUM, OR True Directions for the Interpretation of Nature.
- P. III. PHÆNOMENA UNIVERSI, OR History Natural and Experimental, for the building up Philosophy.
- P. IV. SCALA INTELLECTUS, OR the Intellectual Sphere rectified to the Globe of the World.
- P. V. PRODROMI, OR The Anticipations of second Philosophy emergent upon Practice.
- P. VI. SECUNDA PHILOSOPHIA, OR Active Philosophy, from intimate Converse with Nature.

The ARGUMENT of the several PARTS.

IT is one point of the Design we have in hand, That every thing be delivered with all possible Plainness and Perspicuity: for the nakedness of the Mind, as once of the Body, is the companion of Innocence and Simplicity. First therefore, the order and Distribution of the work, with the reason thereof, must be made manifest. The Parts of the Work are, by us assigned, Six.

¶ The First Part exhibits the summ or universal description of that Learning and Knowledges in the possessi-

Prov. 18.

on whercof, men have hitherto been estated. For we thought good to make some stay even upon *Sciences received*, and that, for this consideration; that we might give more advantage to the *Perfection of ancient knowledges*, and to the *introduction of new*: For we are carried, in some degree, with an equal temper of Desire, both to *improve the labours of the Ancients*, and to *make farther progress*. And this makes for the faith and sincerity of our meaning, according to that of the wise, *The unlearned Man receives not the words of knowledge, unless you first interpret unto him the conceptions of his heart*: Wherefore we will not neglect to side along (as it were in passage) the *Coasts of accepted Sciences and Arts*; and to import thither, somethings useful and profitable. § Nevertheless we adjoyn such *Partitions of Sciences*, as comprehend, not only such things that are found out and observed already, but such also as are thereto pertaining, and have been hitherto pretermis'd. For their are found in the *Intellectual Globe*, as in the *Terrestrial, soyls improved and Deserts*. Wherefore let it not seem strange, if now and then we make a departure from the *usual Divisions*, and forsake the beaten path of some *Partitions*: for *Addition whilst it varies the whole, of necessity varies the Parts and the Sections thereof*; and the *accepted Divisions*, are accommodated only to the *accepted summi of Sciences*, as it is now cast up. § Concerning those *Parts*, which we shall note as *Pretermitted*, we will so regulate our selves, as to set down more than the naked *Titles*, or brief *Arguments of Deficients*. For where we deliver up any thing as a *Desiderate*, so it be a matter of merit; and the reason thereof may seem somewhat obscure; so as, upon good consideration, we may doubt, that we shall not be so easily conceived what we intend, or what the contemplation is we comprehend in our mind, and in our mediation, there it shall ever be our precise care, to annex either *precepts*, for the performing of such a *Work*; or a *Part of the Work* it self, performed by us already, for *Example* to the whole: that so we may in every *Particular*, either by *Operation or Information*, promote the business. For in my judgement, it is a matter which concerns not only the benefit of others, but

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our own Reputation also, that no man imagine that we have projected in our minds some slight superficial notion of these *Designs*; and that they are of the nature of those things, which we could *Desire*, and which we accept only as *good wishes*. For they are such as without question, are within the power and possibility of men to compass; unless they be wanting to themselves; and hereof, we for our parts, have certain and evident demonstration; for we come not hither, as *Augures*, to measure Countries in our mind, for *Divination*; but as *Captains*, to invade them, for a conquest. And this is the First Part of our Works.

¶ Thus having passed over Ancient Sciences, in the P. II. next place we enable humane Intellect to sail through. Wherefore to the Second Part is designed the Doctrine touching more sound, and perfect use of Reason, in the inquiry of Things, and the true assistances of the understanding; that hereby (so far as the condition of humanity and mortality will suffer) the Intellect, may be elevated; and amplified with a faculty, capable to conquer the dark, and deeper secrets of Nature. And the Art, we here set down, which we are wont to call, The Interpretation of Nature, is a kind of *Logick*, though very much, and exceeding different. That *vulgar Logick* professes the Preparation and Contrivance of aids and forces for the understanding, herein they conspire, but it clearly differs from the Popular, specially in three things, namely, in the end, in the order of Demonstrating, and, in the first disclosures to Inquiry. § For the End propounded in this our Science is, that there may be found out not Arguments, but Arts; not things Consentaneous to Principles, but even Principles themselves; not probable reasons, but designations and indications of works; wherefore from a different intention follows a different effect: for there, an Adversary is distressed and vanquisht by Disputation, here by nature, the thing done. § And with this End accords the nature and order of their Demonstrations: For in *vulgar Logick*, almost all the pains is imployed about *Syllogism*: as for *Induction*, the *Dialecticks* seem scarce ever to have taken it into any serious consideration, slightly passing it over

and hastning to the forms of Disputing. But we reject *Demonstration by Syllogism*, for that it proceeds confusedly; and lets Nature escape our hands. For though no man call into doubt, but that *what are coincident in a middle term are in themselves coincident*, (which is a kind of Mathematick Certitude) yet here lies the Fallax, that *Syllogism consists of Propositions, Propositions of words, and words are the tokens and marks of things*. Now if these same notions of the mind, (which are, as it were, the soul of words, and the Basis of this manner of Structure and Fabrick) be rudely and rashly divorc'd from things, and roving; not perfectly defin'd and limited, and also many other ways vicious; all falls to ruine. Wherefore we reject *Syllogism*, not only in regard of *Principles* (for which nor do they make use of it) but in respect also of *Middle Propositions*, which indeed *Syllogism*, however, infers and brings forth; but barren of operations and remote from practice; and in relation to the Active Part of Sciences, altogether incompetent. Although therefore we may leave to *Syllogism*, and such celebrated and applauded *Demonstrations*, a jurisdiction over Arts Popular and Opinable (for in this kind we move nothing) yet for the nature of things, we every where, as well in *Minor as Major Propositions*, make use of *Inductions*: for we take *Induction* to be that form of *Demonstration*, which supports sense; presses Nature, and is instanced in Works, and in a sort mingled therewith. Wherefore the order also of *Demonstration* is altogether inverted. For hitherto the business used to be thus managed; from sense, and some few Particulars, suddenly to fly up to the highest Generals, as to fixt Poles, about which Disputations may be turned; from which the rest of intermediate Axioms may be derived. A way compendious indeed, but precipitate; and to Nature impervious; but for Disputations ready, and accommodate. But according to *our Method*, *Axioms* are raised by a sequent continuity and graduat dependancy, so as there is no seising upon the highest Generals, but in the last place; and those highest Generals in quality not notionals; but well terminated, and such as Nature acknowledges to be truly near allied unto her; and which

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cleave to the individual-intrinsicks of things. § *But touching the form it self of Induction and Judgement made by it*, we undertake a mighty work. For the *Form*, whereof *Logicians speak*, which proceeds by simple enumeration, is a childish thing, and concludes upon admittance; is exposed to peril from a contradictory instance; looks only upon common operations; and is in the issue endless. But to the knowledges of *Induction*, such a *Form* is required, as may solve and separate *experience*; and by due exclusion and rejection necessarily conclude. And if that publick and popular *Judgement of Dialecticks*, be so laborious, and hath exercised so many and so great Wits; how much greater pains ought we to take in this other; which not only out of the secret closets of the mind, but out of the very entrails of Nature is extracted? Nor is this all; for we more firmly settle, and solidate the foundation of Sciences, and take the first rise of our inquiry deeper than hitherto hath been attempted; submitting to examinations those Principles, which *vulgar Logick* takes up on the credit of another. For the *Dialecticks* borrow, as it were, from all other Sciences, the Principles of Sciences; again, adore the prime Notions of the mind: Lastly, rest satisfied with the immediate informations of sense rightly disposed. But our judgement is this, that true Logick should visit every particular Province of Sciences, with greater command than their principles possess; and that those same *putative Principles* be enforced to give an account, and be liable to examination, until such time as their validity and tenure clearly appeared. And as touching the *Prime Notions of the Intellect*, there is nothing of those, (the understanding left at liberty to it self) hath congested, but matter to be suspected; nor any way warrantable, unless it be summon'd, and submit it self to a new Court of Judicature; and that sentence pass according thereto. Moreover we many ways sift and sound the information of sense it self; for the Senses deceive; yet withall they indicate their Errors: but Errors are at hand, Indications to be sought for a far off. § *The guilt of Sense is of two sorts, either it destitutes us, or else deceives us.* For first, there are many things which

escape the cognizance of sense, even when it is well disposed, and no way impedit: either by reason of the subtilty of the entire body, or the minuteness of the parts thereof, or the distance of place, or the slowness, and likewise swiftness of motion; or the familiar converse with the object, or some other causes. Again, nor where sense truly apprehends its object, are her Precepts so very firm: *for the testimony and information of sense, is ever from the Analogy of Man, and not from the Analogy of the World*; and it is an error of dangerous consequence to assert, *that sense is the measure of things*. Wherefore to encounter these inconveniencies, we have with painful and faithful service every where sought out, and collected assistances, *that Supplements to Deficients; to Variations, Rectifications, may be ministred*. Nor do we undertake this *so much by instruments, as by experiments*; for the subtilty of *Experiments*, is far greater than of sense it self, though assisted with exact instruments; we mean *such experiments*, which to the intention of the thing inquired, are skilfully according to Art invented and accommodated. Wherefore we do not attribute much to the immediate and particular perception of sense; but we bring the matter to this issue, that sense may judge only of the experiment, the experiment of the thing. We conceive therefore, that of *sense*, (from which all knowledge in things natural must be derived, unless we mean wilfully to go a witless way to work) we are become the religious Pontifs; and the not inexpert interpreters of her Oracles; so as others may seem in outward profession; but we in deed and action, to protect and honour *sense*. And of this kind are they which we prepare, for the light of Nature, the actuating, and immission thereof, which of themselves were sufficient, were humane Intellect equal, and a smooth in-anticipated Table. But when the minds of men are after such strange ways besieged, that for to admit the true beams of things, a sincere and polisht Area is wanting; it concerns us, of necessity to bethink our selves of seeking out some remedy for this distemperature. The *Idolae*, wherewith the mind is preoccupate are either *Attracted*, or *Imate*; *Attracted* have slid into mens minds,

either

either by the *Placits and Sects of Philosophers*; or by *depraved laws of Demonstrations*. But the *Innate* inhere in the nature of the Intellect, which is found to be far more liable to error, than *sense*. For however men may please themselves, and be raviht into admiration, and almost adoration of the mind of man, this is most certain: *as an inequal looking-glass*, changes the rays of objects, according to its own figure, and cutting; even so the mind, when it suffers impression from things by sense, in encogitating and discharging her notions, doth not so faithfully insinuate and incorporate her nature, with the nature of things. And those two first kinds of *Idolae* can very hardly; but those latter, by no means be extirpate. It remains only that they be disclosed; and that same treacherous faculty of the mind be noted and convinced; lest from the unsound complection of the mind, upon the extermination of ancient, perchance new shoots of Errors spring in their place; and the business be brought only to this issue, that errors be not extinguisht, but changed: but on the contrary, now at last, it be for ever decreed and ratified, *That the intellect cannot make a judgement but by induction, and by a legittimate form thereof*. Wherefore *the Doctrine of purifying the Understanding*, that it may become receptive of truth, is perfected by *three Reprehensions*; *Reprehension of Philosophy*; *Reprehension of Demonstrations*; and *Reprehension of Native humane Reason*. These explicated, and then the case cleared, what the nature of things, what the nature of the mind is capable off; we presume (the Divine goodness being President at the Rites) that we have prepared and adorned, *the Bride-chamber of the Mind and of the Universe*. Now may the vote of the Martiage-song be, *that from this conjunction, Humane Aids, and a Race of Inventions may be procreated, as may in some part vanquish and subdue mans miseries and necessities*. And this is the second Part of the Work.

¶ But our purpose is not only to point out and mu- P. III.
nitate the way; but to enterprise it: *Wherefore the third Part of the Work, compriseth, Phænomena Universi*, as to say, *all kind of Experience, and Natural History, of such kind*

kind as may be fundamental for the building up of *Natural Philosophy*. For neither can any exact way of *Demonstration or Form of interpreting Nature*, both guard and support the mind from error and lapse; and withal present and minister matter for knowledge. But they who proposed to themselves not to proceed by Conjectures and Divinations, but to find out, and to know, whose end and aim is not to contrive Fictions and Fables, but to search with diligence into the nature of, and, as it is were, *anatomize this true world*; must derive all from the very things themselves. Nor can the substitution and compensation of Wit, or Meditation, or Argumentation suffice to this travail, inquisition, and mundane perambulation; no not if all the Wits in the World should meet together. Wherefore we must either take a right course, or desert the business for ever: and to this day the matter hath been so managed, that it is no marvail, if nature hath not disclosed her self. For first, defective and fallacious information of sense; negligent, unequal, and as it were, casual observation; vain Tradition, and from idle Report; Practice, intent on the Work, and Servile; *Experimental attempt*, ignorant, dull, wild, and broken: lastly, slight and poor *Natural History*; have towards the raising of Philosophy, congested most depraved matter for the understanding. After this, preposterous subtilty of arguing, and ventilation, hath essayed a late remedy to things plainly desperate; which doth not any way recover the business, or separate errors. § *Wherefore there is no hope of greater advancement and progress, but in the Restauration of Sciences*. And the commencements hereto must, by all means, be derived from *Natural History*; and that too, of a new kind and provision: for to no purpose you polish the Glass, if Images be wanting: not only faithful guards must be procured, but apt matter prepared. And this our *History*, as our *Logick*, differs from that in use, in many particulars: *in the end or office, in the Mass and Congeries; then in the subtilty, also in choice, and in constitution in reference to those things that follow.* § *For first we propound such a Natural History, as doth not so much either please for the variety of things, or profit for present improvement*

ment of Experiments, as it doth disperse a light to the invention of causes; and gives, as it were, the first Milk to the nourishing up of Philosophy. For though we principally pursue operation, and the Active part of Sciences; yet we attend the due season of Harvest; nor go about to reap the green herb or the blade. For we know well that Axioms rightly invented, draw after them the whole troop of Operations; and not sparsedly, but plentifully exhibit Works. But we utterly condemn and renounce, as *Atalantæ's Apple* which retards the Race, that unseasonable and childish humour of accelerating early Pledges of new Works. And this is the Duty of our *Natural History*. § *As for the Mass, we compile a History, not only of Nature at Liberty; and in Course; I mean, when without compulsion she glides gently along, and accomplishes her own work: (as is the History of the Heavens, Meteors, Earth and Sea; of Minerals, Plants, Animals:)* but much rather of *Nature straitned and vext*; when by the provocations of Art, and the ministry of Man, she is put out of her common road; distressed and wrought. Wherefore, all the experiments of Arts Mechanical; all of the Operative part of Liberal; all of many Practical, not yet conspired into a peculiar Art (so far as any discovery may be had, and so far as is conducent to our intention) we will set down at large. So likewise (not to dissemble the matter) nothing regarding mens pride and bravades, we bestow more pains; and place more assurance in this Part than in that other; being the nature of things, more discloses her self in *the vexation of Art*; than when it is at its own liberty § Nor do we present the *History of Substance only*, but also we have taken it as a part of our diligence, to prepare a separate *History of their vertues*; we mean, such as in nature may be accounted Cardinal, and wherein the Primordials of Nature are expressly constituted; as matter invested with her Primitive qualities and appetites; as *dense, rare, hot, cold, consistent, fluid, ponderous, light*, and others not a few. § For indeed, to speak of *subtilty*, we search out with choice diligence, a kind of Experiments, far more subtile and simple than those commonly met with. For we educe and extract many out
of

of darkneſs, which had never come into any mans mind to inveſtigate, ſave his who proceeds by a certain and conſtant path, to the invention of cauſes : whereas in themſelves they are of no great uſe ; that it is clearly evident, that they were not ſought after, for themſelves, but that they have directly the ſame reference to things and works, that the Letters of the Alphabet have to ſpeech and words ; which, though ſingle by themſelves, they are unprofitable, yet are they the Elements of all Language.

§ *And in the choice of Reports and Experiments, we preſume that we have given in better ſecurity, than they who hitherto have been converſant in Natural Philoſophy :* for we admit nothing but by oculate faith, at leaſt evident proof ; and that after moſt ſevere enquiry : ſo as nothing is reported hightned to the abuſive credit of a miracle ; but what we relate are chaſte and immaculate from Fables and Vanity. So alſo all thoſe received and ventilated current fictions and lies, which by a ſtrange neglect, have for many ages been countenanced, and are become inveterate ; we do by name proſcribe, and precisely note, that they may be no longer prejudicial to Sciences. For what one wiſely obſerves, *That Fables, Superſtitions, and idle Stories, which Nurſes inſtill into young Children, do in good earneſt deprave their minds :* ſo the ſame reaſon moved us, to be ſo religious and careful, leſt at the entrance, where we handle and take the charge of *the Infancy, as it were, of Philoſophy, under natural Hiſtory ;* ſhe ſhould be initiated in any vanity.

§ *But in every new and ſomewhat more ſubtile experiment,* in our opinion, certain and tryed, we yet apertly adjoyn the manner of the experiment we have practiſed, that after it is made apparent what the ſucceſs of every particular was with us ; men might ſee the error which might lurk and cleave thereto ; and be awaked to proofs, if any ſuch be, more exact and ſecure. § *In brief,* we every where ſparſedly inſert monitions and ſcruples and conjectures ; ejection and interdiction, as it were, by a ſacred adjuration, and exorcism, all Phantaſms. § *Laſtly,* being it is a thing moſt liquid unto us, how exceedingly Experience and Hiſtory diſperſe the beams of the ſight of humane Intellect ; and how hard a matter it is, ſpecially

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P. ex Plat.
de Rep.

to minds tender and preoccupate, at first entrance, to become familiar with nature ; we therefore many times add our own observations, as certain first conversions and inclinations, and as it were, *Aspects of History to Philosophy* ; to the end that they may be both pledges to men, that they shall not ever be detained in the waves of History ; as also that when they are once arrived to the operation of the understanding, all may be in a more preparedness. And by this kind of *Natural History*, as here we describe, we suppose that there may be a secure and easie access unto Nature ; and solid and prepared matter presented unto the Understanding.

¶ Now we have both fortified and environed the un- P. IV.
derstanding with faithful Auxiliaries and forces, and by a strict Muster raised a compleat Army of Divine Works, there seems nothing remaining but that we set upon Philosophy it self. But in so deficile and dubious an enterprise, there are some particulars, which seem necessarily to be interposed partly for instruction, partly for present use. § Of these the first is, that the examples of Inquisition, and of Invention, he propounded according to our Rule and Method represented in particular Subjects ; chiefly making choice of such Subjects, which amongst other things to be enquired, are the most noble, and in mutual relation, most adverse ; that there may not want an *example* in every kind. Nor do we speak of those *examples*, which for illustration sake, are annexed to every particular Precept and Rule (for we have sufficiently quit our selves hereof in the *Second Part of the Work*,) but we mean directly the Types and Platforms which may present, as it were, to the eye, the whole Procedure of the Mind, and the continued Fabrick and Order of Invention, in certain selected subjects ; and they various and of remark. For it came into our mind, that in *Mathematicks*, the frame standing, the Demonstration inferred is facile and perspicuous ; on the contrary, without this accommodation and dependency, all seems involved, and more subtile than indeed they be. Wherefore to examples of this sort we assign the *Fourth Part of our Work* : which indeed is nothing else, but a particuler, and explicite application of the *Second Part*.

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¶ But the *fifth Part* is added only for a time, and paid as interest until the Principal be raised. For we are not so precipitantly bent upon the end, as too slightly to pass over what we casually meet with by the way. Wherefore the *Fifth Part of the Work*, is composed of such things as we have, or found out, or experimented, or superadded; nor yet do we perform this, by the *reason and rules of Interpretation*, but by the same application of the understanding, which others in enquiry and invention use to practice. For seeing from our perpetual converse with nature, we hope greater matters from our meditations, than we can promise to our selves from the strength of our own wit; these observations may be as tents pitched in the way, into which the mind, in pursuit of more certain Collections, may turn in, and for a while repose her self. Yet in the mean, we promise not to engage our selves upon the credit of those Observations; because they are not found out, nor tried by the right *form of Interpretation*. § And there is no cause why any should distast or entertain a jealousy, at that *suspension of Judgement in knowledge, which asserts not absolutely, that nothing can be known; but that nothing, without a certain Order, and a certain Method, can be known; and yet withal, lays down for use and ease, certain Degrees of certitude, until the mind be fixt upon the explication of causes*. For neither those very Schools of Philosophers, who down right maintained *Acatalepsie* or *Incomprehensibility*, have been inferiour to those, who usurp a *liberty of pronouncing sentence*: but they provided not assistances to the sense and understanding, as we have done, but utterly took away all *credit and authority*, which is a far different case and almost opposite.

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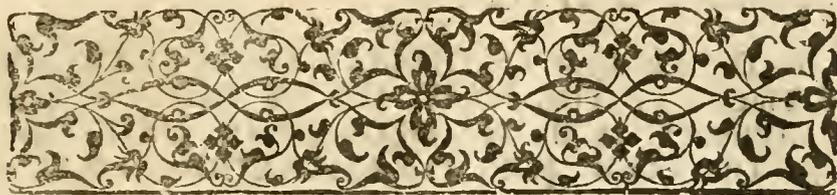
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¶ Now the *sixth Part of our Work*, whereto the rest are *subservient and ministrant*, doth altogether disclose, and propound that *Philosophy*, which is educed, and constituted out of such a *legitimate sincere and severe enquiry*, as we have already taught and prepared. But to consummate and perfect this *last Part*, is a thing exalted above our strength, and beyond our hopes. We have given it, as we trust, not contemptible beginnings; the prosperous success of mankind shall give it issue; and per-

peradventure such, as men, in this present state of mind and employments, can not easily conceive and comprehend. And the case concerns not contemplative felicity alone, but indeed mens affairs and fortunes, and all the power of Works: *For Man, Natures minister and interpreter, doth, and understands so much, as he hath by Operation or Contemplation obserwed of Natures Order; nor can know or do any more:* For neither can any forces unloose and break asunder the chain of Causes; nor is nature otherwise, than by obedience unto it, vanquisht. Wherefore these two main Intentions, *Humane Sciences, and Humane Potencies*, are indeed in the same point coincident: and the frustration of Works, for most part, falls out from the ignorance of Causes. § But herein the summ and perfection of all consists, if a man, never taking off the eye of his mind from the things themselves; throughly imprint their images to the life. For God defend, that we should publish the ayery dreams of our own Fancy, for the real *Ideas of the World!* But rather may he be so graciously propitious unto us, that we may write the *Apocalypse*, and true vision of the impressions and signets of the Creator, upon the Creature!

Wherefore thou, O Father, who hast conferred visible Lights as the Primitiæ on the Creature; and breathed into the face of Man Intellectual Light, as the accomplishment of thy Works; protect and conduct this Work, which issuing from thy Goodness, returns to thy Glory! Thou, after thou hadst surveyed the works thy hands had wrought, saw that all was exceeding Good, and hast rested: but Man surveying the works his hands had wrought, saw that all was vanity and vexation of Spirit, and found no Rest: Wherefore if we labour with diligence, and vigilance in Thy works; thou wilt make us Participants of thy Vision, and of thy Sabbath. We humbly supplicate, that we may be of this resolution, and inspired with this mind; and that thou wouldst be pleased to endow humane Race, with new Donatives by our hands; and the hands of others, in whom thou shalt implant the same Spirit.

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THE
GENERAL ARGUMENT
Of the
Nine Books.

L IB. I. Is Proemial to the Instauration of Sciences. § Reports. the DISCREDITS of LEARNING. § The DIGNITY of LEARNING.

L IB. II. Declares the ADVANCEMENT of LEARNING. § Instrumental. § Essential, in the Partition of Sciences, into HISTORY. § POESY. § PHILOS. § Partit. of HIST. § POESY.

L IB. III. Partitions of PHILOSOPHY, into § SUMMARY. § SPECIAL, into DIVINE. § NATURAL. § HUMANE. § Partitions of NATURAL PHILOSOPHY.

L IB. IV. Partitions of HUMANE PHILOSOPHY into § PHILOSOPHY of HUMANITY. § CIVIL. § Partitions of the PHILOSOPHY of HUMANITY.

L IB. V. Partitions of SCIENCES, from the Use and Objects of the MIND, into § LOGICK, § ETHICK. § Of LOGICK into INVENTION. § JUDGEMENT. § MEMORY. § TRADITION.

L IB. VI. Partitions of TRADITION or ELOCUTION into the ORGAN of SPEECH. § METHOD of SPEECH. § ILLUSTRATION of SPEECH.

L IB. VII. Partitions of ETHICK or MORAL KNOWLEDGE, into the Doctrine of the PLATFORM of GOOD. § Of the CULTURE of the MIND.

LIB. VIII. Partitions of CIVIL KNOWLEDGE, into the Doctrine of CONVERSATION. § OF NEGOTIATION. § Of GOVERNMENT of STATES.

LIB. IX. Partitions of THEOLOGY omitted, DEFICIENTS Three. § I. THE RIGHT USE OF HUMANE REASON in DIVINITY. § II. The DEGREES OF UNITY IN THE CITY OF GOD. § III. The EMANATIONS OF SS. SCRIPTURE.

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THE
 ARGUMENT
 OF THE
 CHAPTERS
 OF THE
 First Book.

CAP. I.

THE Consecration of this Work unto the most Learned of Princes, King James. § Who in high, but just conceptions is here admired. § The Distribution into the Dignity and Proficiency of Learning. I. Discredits of Learning from the objections of Divines; That the aspiring unto Knowledge was the first Sin. That Learning is infinite and full of anxiety. That Learning inclines the Mind to Heresie and Atheism. II. The Solution. Original Guilt was not in the Quantity, but in the Quality of Knowledge. § The Corrective hereof, Charity. III. Against Infinity, Anxiety, and Seducement of Knowledge, Three preservatives. § That it instruct us in our Mortality. § That it gives us content. § That it soar not too high. § And so Philosophy leads the Mind by the Links of Second Causes unto the First.

CAP. II.

I. Discredits cast upon Learning from the objections of Politicks; That Learning softens Mens natures, and makes them unfit for Exercise of Arms.

*Arms. That Learning perverts mens minds for matter of Govern-
ment. Other particular indispositions pretended. II. The solution;
Learning makes not men unapt for Arms. III. Learning inables
men for Civil Affairs. IV. Particular seducements imputed to
Learning: As curious uncertainty. § Pertinacious Regularity. § Mis-
leading Book-Presidents. § Retired slothfulness. § Relaxation of
Displine; are rather cured than caused by Learning.*

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*I. Discredits of Learning from Learned mens Fortunes; Manners;
Nature of Studies. II. Derogations derived from Fortune are these;
Scarcity of Means. § Privateness of Life. § Meanness of Employ-
ment. III. From their Manners; these too Regular for the times.
§ Too sensible of the good of others; and too neglective of their own.
§ A defaultance in applying themselves to Persons of Quality. § A
Failing in some lesser Ceremonies of demeanure. § Gross Flattery
practised by some Learned men. § Instanced, in the Modern De-
dication of Books. § Discreet Morigeration allowed.*

C A P. IV.

*I. Distempers of Learning from Learned mens Studies, are of three
sorts; Phantastical Learning; Contentious Learning; Delicate
Learning. II. Delicate Learning a curiosity in words, through pro-
fuseness of speech. § Decent expression commended. § Affectèd
brevity censured. III. Contentious Learning, a curiosity in matter,
through Novelty of Terms or strictness of Positions. § A vanity
either in Matter; or in Method. IV. Phantastical Learning hath
two branches, Imposſture; Credulity. § Credulity a Belief of Histo-
ry; or a Belief of Art; or Opinion: and that either Real, in the
Art it self. § Or Personal in the Author of such an Art or Science.*

C A P. V.

*Peccant Humours in Learning. I. Extreme affection to two extremes;
Antiquity: Novelty. II. A distrust that any thing New, should now
be found out. III. That of all Sects and Opinions, the best hath
still prevailed. IV. An over-early reduction of Knowledge into Arts
and Methods. V. A neglect of Primitive Philosophy. VI. A
Divorce of the Intellect from the Object. VII. A contagion of Know-
ledge in General, from Particular inclinations and tempers. VIII. An
impatience of suspense; haste to positive assertion. IX. A Magistral
manner of Tradition of Knowledge. X. Aim of Writers, Illustration,
not Propagation of Knowledge. XI. End of Studies, Curiosity,
Pleasure, Profit, Preferment, &c.*

CAP. VI.

The Dignity of Learning from Divine Arguments and Testimonies.

I. *From Gods Wisdom. § Angels of Illumination. § The first Light. § The first Sabbath. § Mans imployment in the Garden. § Abels contemplation. § The Invention of Musick, § Confusion of Tongues.* II. *The excellent Learning of Moses. § Job. § Solomon. § Christ. § St. Paul. § The Ancient Doctors of the Church. § Learning exalts the Mind to the Celebration of Gods Glory; and is a preservativè against Error and Unbelief.*

CAP. VII.

The Dignity of Learning from humane Arguments and Testimonies.

I. *Natural Inventors of new Arts, for the Commodity of Man's life, consecrated as Gods.* II. *Political, Civil Estates and Affairs advanced by Learning. § The best and the happiest times under Learned Princes and others. § Exemplified in six continued succeeding Emperours from the death of Domitian.* III. *Military: The Concurrence of Arms and Learning. § Exemplified in Alexander the Great. § Julius Cæsar the Dictator. § Xenophon the Phisopher.*

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§ *Learning a Sovereign remedy for all the Diseases of the Mind. § The dominion thereof greater than any Temporal Power, being a Power over Reason and Belief. § Learning gives Fortunes, Honours and Delights, excelling all other as the soul the sense. § Durable monuments of Fame. § A prospect of the Immortality of a future World.*

The second BOOK.

THE PROEM.

THe Advancement of Learning commended to the Care of Kings.

I. *The Acts thereof in general three, Reward, Direction, Assistance.* II. *In special, about three Objects, Places, Books, Persons. § In Places four Circumstances, Buildings, Revenues, Priviledges, Laws of Discipline. § In Books two, Libraries, good Editions. § In Persons two, Readers of Sciences extant, Inquirers into Parts non-extant.* III. *Deficients in the Acts of Advancement, six, want of Foundations for Arts at large. § Meanness of Salary to Readers. § Want of allowance for experiments. § Preposterous Institutions: unadvised practises in Academical Studies. § Want of Intelligence between the Universities of Europe. § Want of Enquirers into the Defects of Arts. § The Authors particular design. § Modest defence.*

CAP. I.

- I. *An Universal Partition of Humane Learning into, § History. II. Poësie. III. Philosophy. § This Partition is drawn from the three Intellectual Faculties; Memory; Imagination; Reason. § The same distribution is agreeable unto Divine Learning.*

CAP. II.

- I. *The Partition of History, into Natural and Civil. (Ecclesiastical, and Literary comprehended under Civil.) II. The Partition of Natural History, into the History of Generations. III. Of Preter-Generations. IV. Of Arts.*

CAP. III.

- I. *A Second Partition of Natural History from the Use and End thereof, into Narrative, and Inductive. And that the most noble end of Natural History is, that it minister and conduce to the building up of Philosophy; which end, Inductive History respecteth. II. The Partition of the History of Generations, into the History of the Heavens; The History of the Meteors; The History of the Earth, and Sea; The History of Massive Bodies, or of the greater Collegiats; The History of Kinds, or of the lesser Collegiats.*

CAP. IV.

- I. *The Partition of History Civil, into Ecclesiastical and Literary; and (which retains the general name) Civil. II. Literary Deficient. § Precepts how to compile it.*

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The first Partition of Civil History, into § Memorials. § Antiquities. § Perfect History.

CAP. VII.

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The Partition of the History of Times; into universal and particular History. The advantages and disadvantages of both.

CAP. IX.

The Second Partition of the History of Times, into Annals, and Journals:

CAP. X.

A Second Partition of Special-Civil History into History Simple & Mixt.

CAP.

CAP. XI.

I. *The Partition of Ecclesiastical History, into the General History of the Church. II. History of Propheſie. III. History of Providence.*

CAP. XII.

The Appendices of History Converſant about the words of Men, as History it ſelf about Men's Acts. The Partition of them into Speeches; Letters, and Apothegms.

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The Second Principal part of Humane Learning, Poefie. I. The Partition of Poefie into Narrative. II. Drammatical. III. Parabolical. § Three Examples of Parabolical Poefie propounded. IV. Natural. V Political. VI. Moral.

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Of Natural Theology. § Of the Knowledge of Angels and Spirits, an Appendix thereof.

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The Partition of Natural Philoſophy into Speculative & Operative. § Theſe two, both in the Intention of the Writer, and Body of the Treatiſe, ought to be ſeparate.

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I. *The Partition of Speculative Science concerning Nature, into Phyſick ſpecial, and Metaphyſick; whereof Phyſick inquires the Efficient Cauſe and the Matter: Metaphyſick the Final Cauſe of the Form. II. The Partition of Phyſick into the knowledges of the Principles of things; of the Fabrick of things, or of the World; and of the variety of things. III. The Partition of Phyſick reſpecting the variety of things, into the Doctrin of Concretes, and into the Doctrin of Abſtracts. The Partition of Concretes, is the ſame with the Diſtribution of Natural Hiſtory. IV. The Partition of the Doctrin of Abſtracts, into the knowledge of the Schemes of Matter; and into the knowledge of Motions. V. Two Appendices of Speculative Phyſick, Natural Problems; And the Placits of Ancient Philoſophers. VI. The Partition of Metaphyſick, into the Doctrin of Forms; and into the Doctrin of Final Cauſes.*

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I. *The Partition of Operative knowledge concerning Nature, into Mechanick,*

nick, and Magick: respondent to the Parts of Speculative knowledge; Mechanick to Physick; Magick to Metaphysick. § A purging of the word Magia. II. Two Appendices to Operative knowledge: An Inventory of the estate of Man. § A Catalogue of Polychrests; or things of multifarious use.

CAP. VI.

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CAP. I.

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FRANCISCI
DE
VERULAMIO
ARCHITECTURA
Scientiarum.

THE
GENERAL IDEA
AND
PROJECT
OF THE
LORD VERULAM'S
Instauratio Magna.

Represented in the

PLATFORM
OF THE
DESIGN

Of the First Part thereof,

As it was conceiv'd in the Mind of the Author
and is expressed in the Model of the Work.

DEUS OMNIA
IN MENSURA, ET NUMERO, ET ORDINE,
DISPOSUIT.

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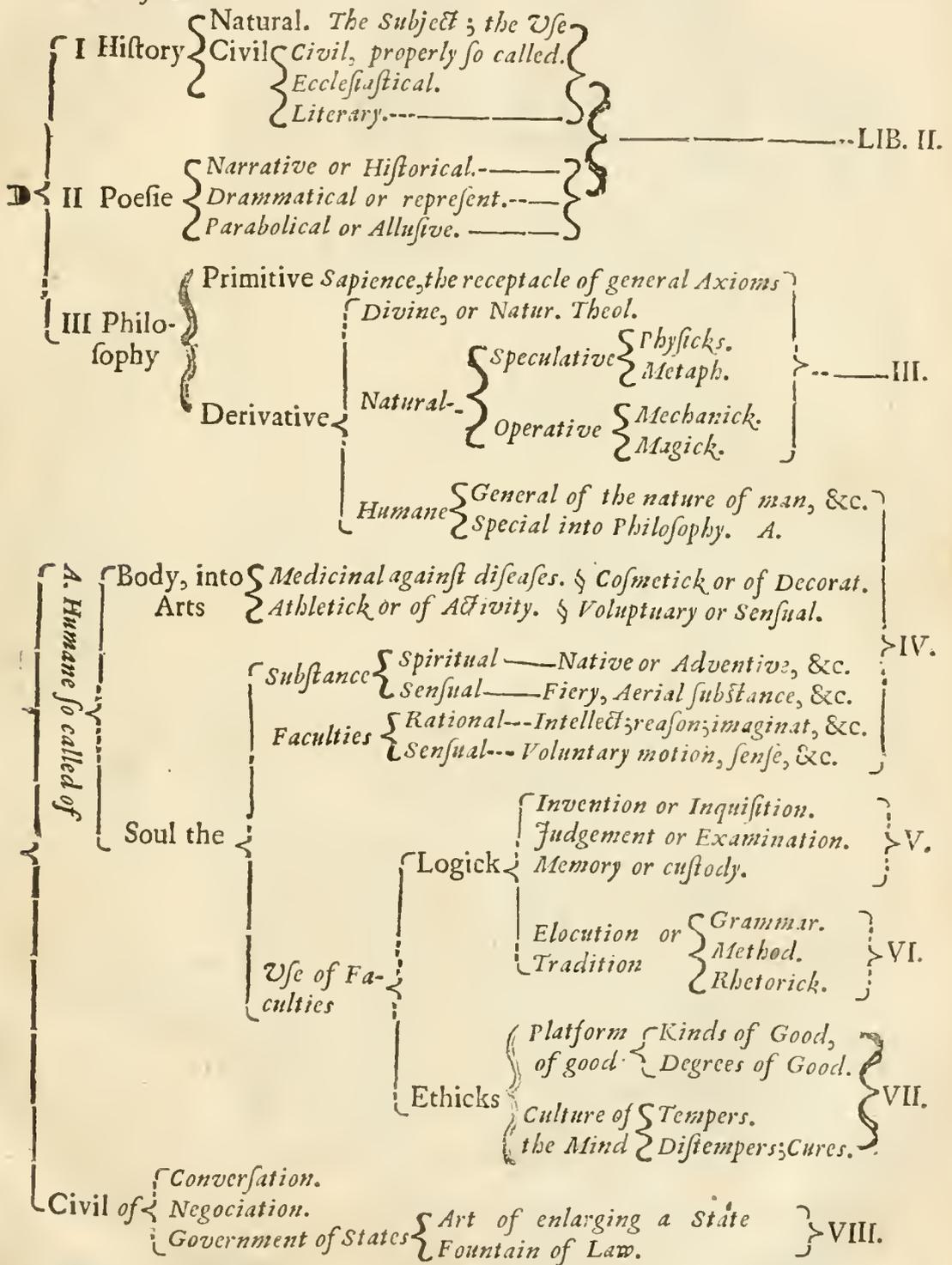
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PLATE

OF THE

The Emanation of SCIENCES, from the Intellectual Faculties of MEMORY, IMAGINATION, REASON.

From these D



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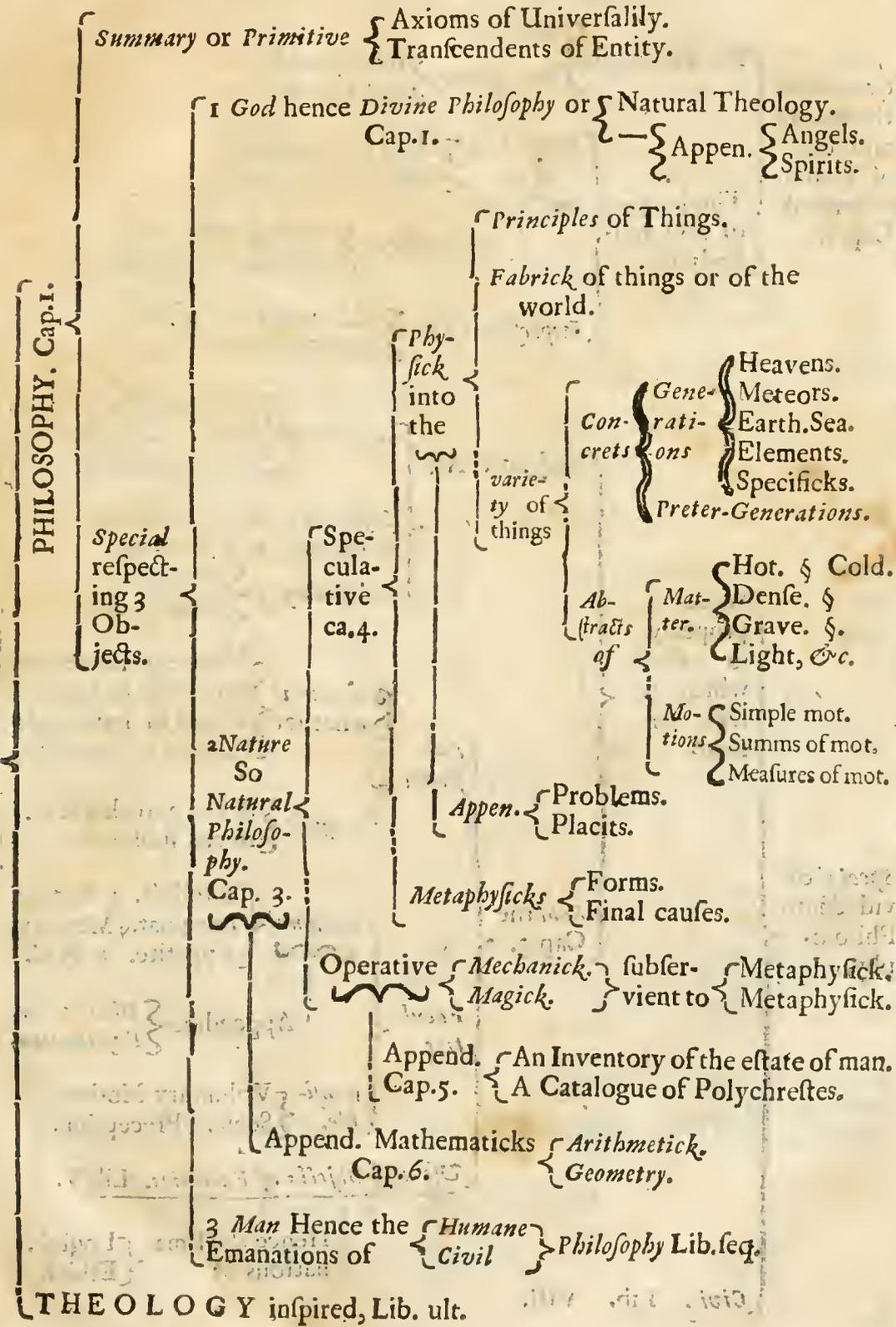
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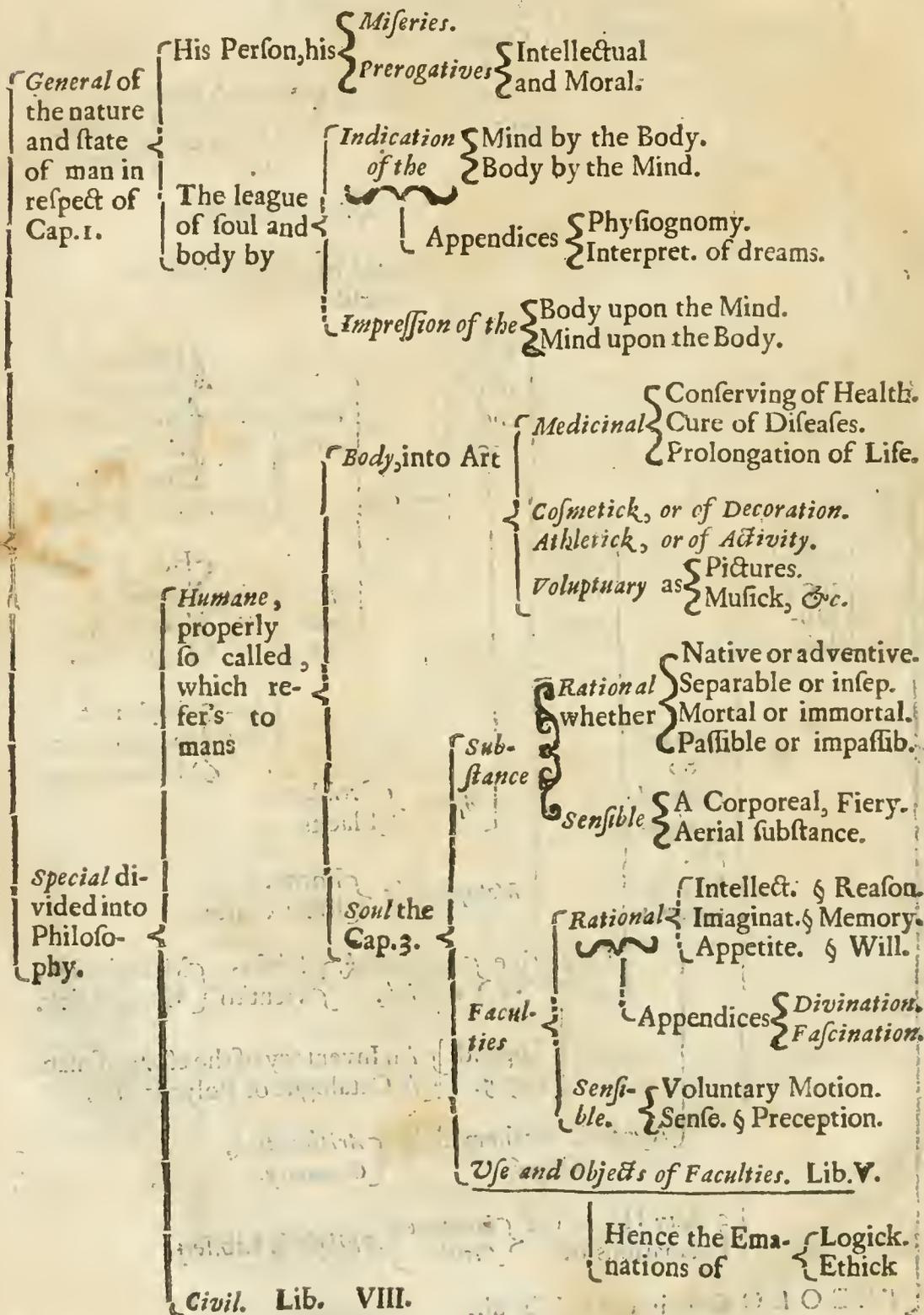
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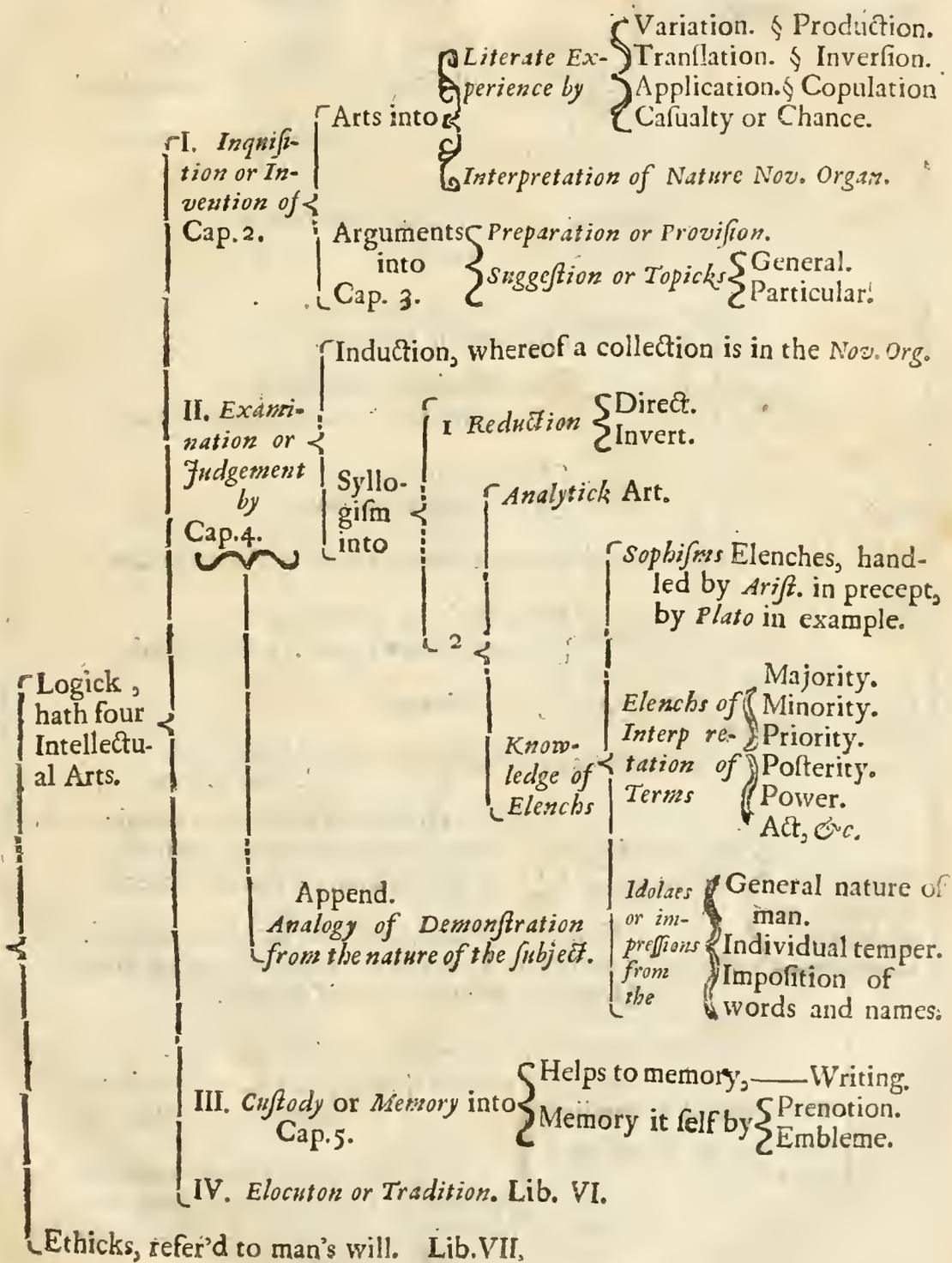


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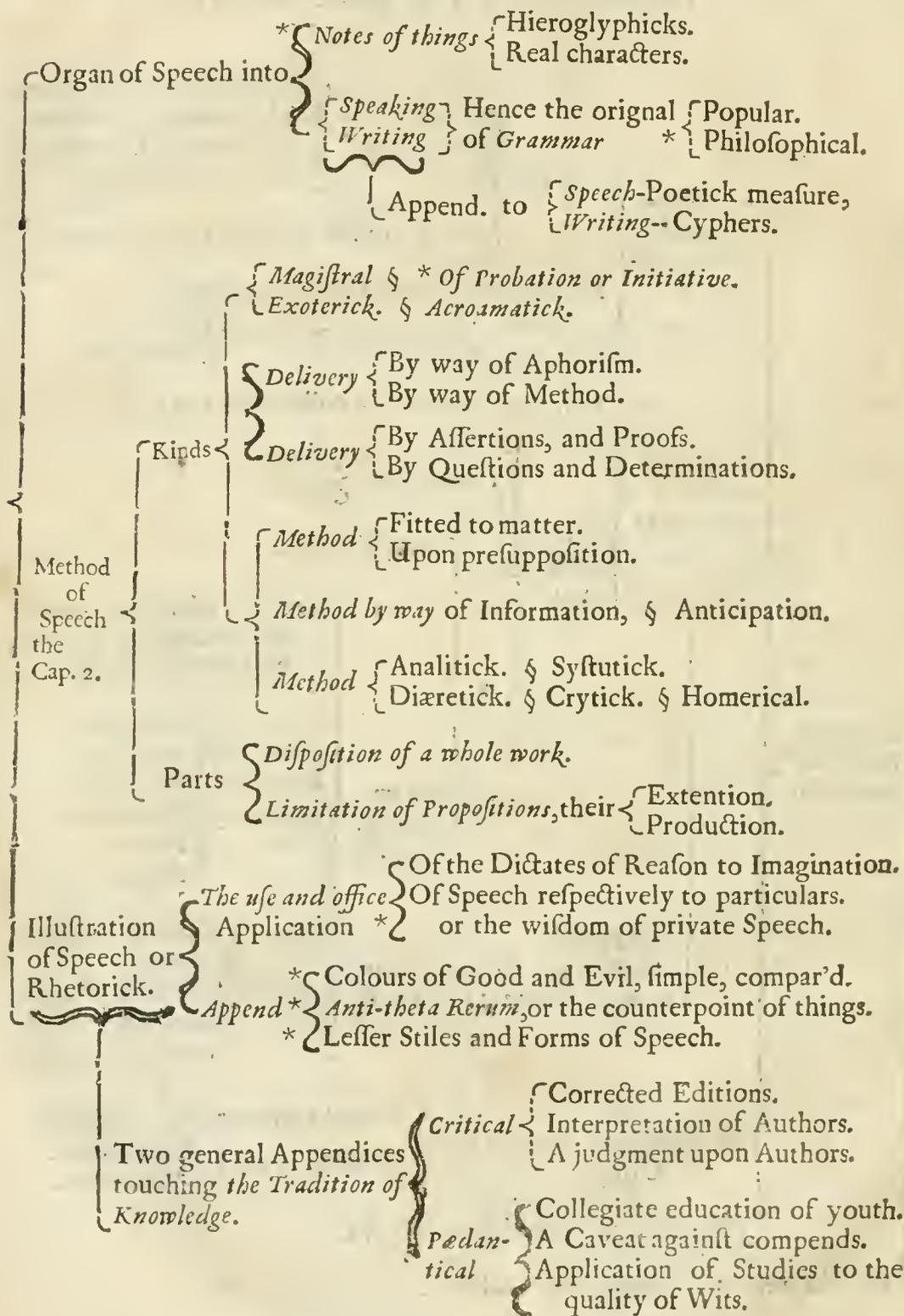


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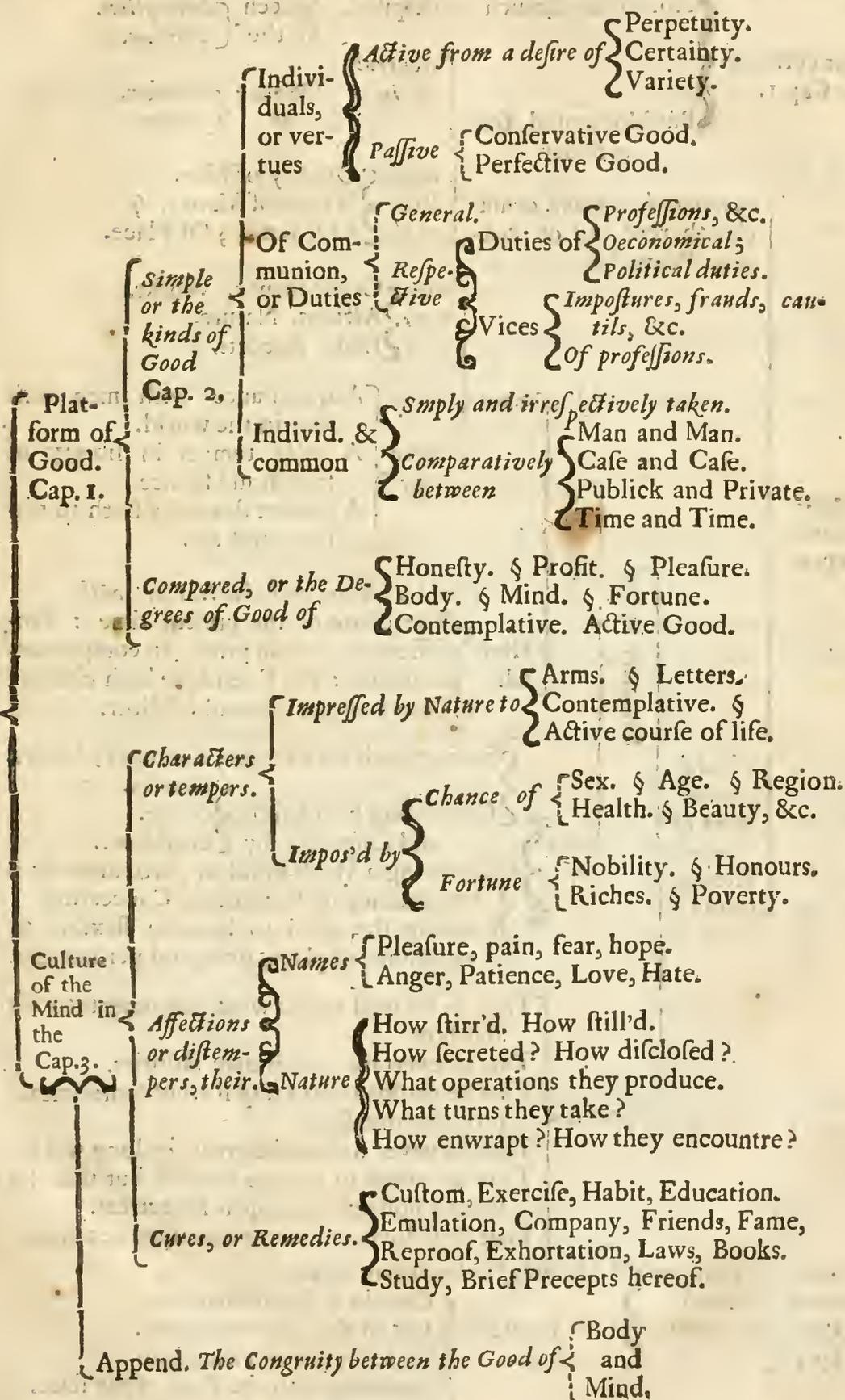
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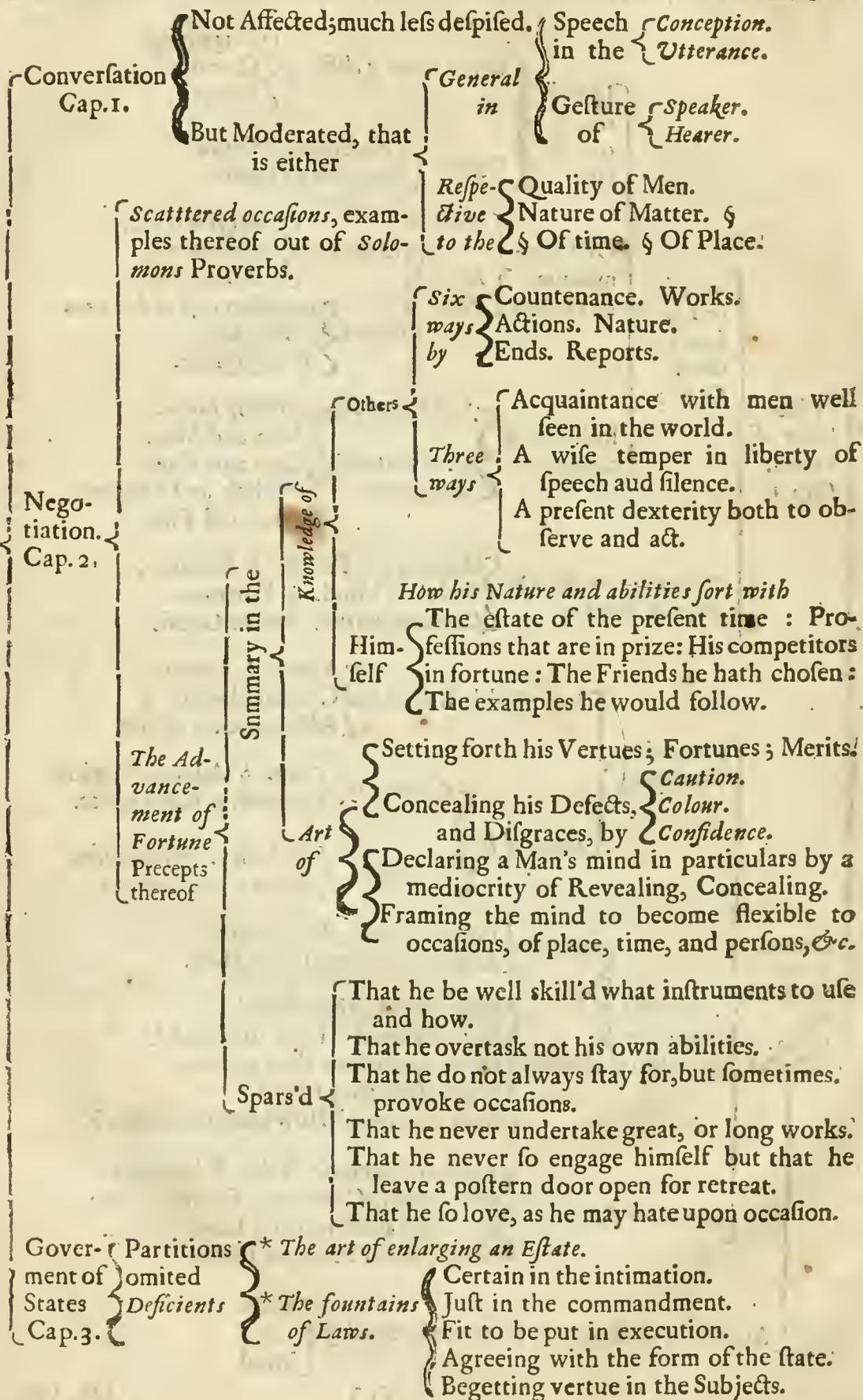
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FRANCIS L. VERULAM
VICOUNT ST ALBAN,
OF THE
Dignity and Advancement
OF
LEARNING.

THE FIRST BOOK.

CHAP. I.

The Consecration of this Work unto the most learned of Princes, K. James, who in high, but just, conceptions is here admired. § The Distribution, into the Dignity and the Proficiency of Learning. I. Discredits of Learning, from the objections of Divines : That the aspiring unto Knowledge was the first Sin. That Learning is a thing infinite, and full of Anxiety. That Knowledge enclines the Mind to Heresie and Atheism. II. The solution : Original Guilt was not in the Quantity, but in the Quality of Knowledge. § The Corrective hereof, Charity. III. Against Infinity, Anxiety, and Seducements of Sciences ; three Preservatives : That we forget not our mortality. § That Learning give us content. § That it soar not too high. § And so Philosophy leads the mind by the Links of Second Causes, unto the First.



Here were under the Old Law (Excellent King) both *Free-will-offerings*, and *Daily sacrifices* ; the one proceeding upon ordinary observance ; the other upon a devout Chearfulness. Certainly, in my opinion, some such kind of Homage belongs to *Kings* from their servants ; namely, That every one should tender, not only Tributes of his Duty ; but Presents of Affection. In the former of these, I hope, I shall not be wanting ; for the latter I was in suspense what I should most principally undertake, and in conclusion I thought it more respective to make choice of some Oblation, which might refer, rather to the propriety and excellency of your individual Person, than to the business of your Crown and State.

§ Representing your Majesty, as my duty is, many times unto my mind ; (leaving aside the other parts, whether of your Vertue, or of your Fortune) I have been posselt with extreme wonder, when I consider the

excellency of those Vertues and Faculties in you, which the Philosophers call intellectual; the capacity of your Mind comprehending so many and so great Notions, the faithfulness of your Memory, the swiftness of your Apprehension, the penetration of your Judgment, the order and facility of your Elocution. In truth *Plato's* Opinion sometimes comes into my mind, which maintains, *That knowledge is nothing else but remembrance; and that the mind of man by nature knows all things, once redimed and restored to her own native light, which the cloudy vault or gloomy tabernacle of the body had overspread with darkness.* For certainly the best and clearest Instance for this Assertion shines in your Majesty, whose mind is so ready to take flame from the least occasion presented, or the least spark of anothers Knowledge delivered. Wherefore as the sacred Scripture saith of the wisest King, *That his heart was as the sands of the sea:* which though it be one of the largest Bodies, yet it consisteth of the smallest portions; so hath God given your Majesty a composition of Understanding exceeding admirable, being able to compass and comprehend the greatest matters, and nevertheless, to apprehend the least, and not to suffer them to escape your Observation: Whereas it should seem very difficult, or rather an impossibility in nature, for the same Instrument to make it self fit for great and small works. And for your gift of Speech, I call to mind what *Cornelius Tacitus* saith of *Augustus Caesar*, *Augusto* (saith he) *prompta ac profluens, qua deceret principem, eloquentia fuit.* In truth if we note it well, Speech that is *Elaborate*, or *Affectate*, or *Imitating*, although otherwise excellent, hath somewhat servile in it and holding of the subject; but your Majesties manner of Speech is indeed Prince-like, flowing as from a Fountain; and yet streaming and branching it self into Natures Order, full of Facility and Felicity, *Imitating none, and Inimitable of any.* And as in your Civil estate, respecting as well your Kingdom as your Court, there appeareth to be an Emulation and Contention of your Majesties Vertue with your Fortune, namely, excellent moral Endowments with a fortunate Regiment; a pious and patient expectation when time was, of your greater Fortune, with a prosperous and seasonable possession of what was expected; a holy observation of the Laws of Marriage, with a blessed and happy fruit of Marriage in a most fair Progeny; a godly Propension and most befitting a Christian Prince to Peace, with a fortunate concurrence of the like inclination in your neighbour Princes: So likewise in your intellectual Abilities, there seemeth to be no less Contention and Emulation; if we compare your Majesties gifts of Nature with the rich Treasury of multiplicitous Erudition and the knowledge of many Arts. Neither is it easie to find any *King* since Christs time, which may be compared with your Majesty for variety and improvement of all kind of Learning Divine and Humane: Let who will revolve and peruse the Succession of Kings and Emperours, and he shall find this judgement is truly made. For indeed it seemeth much in Kings, if by the compendious Extraction of other mens Wits and Labours, they can take hold of knowledge, or attain any superficial ornaments or shews of Learning, or if they countenance and prefer learned men; but for a King, and a King born, to drink indeed the true Fountains of Learning, nay, to be himself a Fountain of Learning, is almost a Miracle. And this also is an access to your Majesty, that in the same Closet of your Mind, there are treasured up as well Divine and Sacred Literature, as Prophane and Humane; so that your Majesty

esty stands invested with that triplicity of Glory, which was ascribed to that famous *Hermes Trismegistus*, *The Power of a King, the Illumination of a Priest, the Learning of a Philosopher*. Wherefore since in these glorious Attributes of Learning, so inherent and individual in your Person, your Majesty so far excels all other Kings, it is very meet that such rare endowments of Nature and Art should be celebrated, not only in the fame or admiration of the present time, or in light of History conveyed over to Posterity, but be engraven in some solid Work, which both may express the Power of a great King, and bear a Character or Signature of so excellent a learned King. Now (to return to our intended purpose) I concluded with my self that I could not make to your Majesty a better oblation, than of some Treatise tending to that end.

§ The Sum and Argument hereof will consist of *two Parts*: In the *former*, which is more slight and popular (yet may not be past over) we shall entreat of the *excellency of Knowledge and Learning, through all the parts thereof*; and likewise of the *merit of those who have worthily and wisely employed and placed their bounties and industries in the Augmentation, and Propagation thereof*. In the *latter Part* (which is the main and sum of this work) I shall propound and set down what in this kind hath been embraced, undertaken and accomplisht hitherto, for the *Advancement of Learning*: and again briefly touch at such particulars as seem deficient in this enterprize; to the end that though I dare not presume positively to separate and select what I would chiefly commend unto your Majesty; yet by representing many and different Observations, I may excite your Princely Cogitations to visit the peculiar Treasures of your own Mind, and thence to extract what is most conducent to the *amplifying and enlarging of the bounds of Arts and Knowledges*, agreeable to your Maguanimity and Wisdom.

I. In the entrance to the *former Part*, to clear the way, and as it were, to make silence, to have the testimonies concerning the *Dignity of Learning* to be better heard, without the interruption of tacit Objections, I think good first to deliver Learning from the Discredits and Disgraces which Ignorance hath cast upon it, but Ignorance severally disguised; appearing and discovering it self sometime in the *zeal of Divines*, sometime in the *arrogancy of Politicks*, and sometimes in the *errors of Learned men themselves*. I hear the former sort say, *That Knowledge is of the nature and number of those things, which are to be accepted with great Limitation and Caution*; *That the aspiring to overmuch Knowledge, was the original temptation and sin, whereupon ensued the Fall of Man*; *And that even at this day Knowledge hath somewhat of the Serpent in it, and therefore where it entreth into a man, it makes him swell, Scientia inflat*; *That Solomon*

1 Cor. 8.
Eccles. 12.
Eccles. 1.

Colof. 2;

gives a censure, That there is no end of making Books, and that much reading is a weariness to the flesh; and again in another place, *That in spacious knowledge there is much contristation, and that he that encreaseth knowledge, encreaseth anxiety*; *That St. Paul gives a caveat, That we be not spoiled through vain Philosophy*; And that experience demonstrates how the Learnedst men have been Arch-hereticks; How Learned times have been inclined to Atheism, and how the Contemplation of second Causes doth derogate from the Authority of the first.

II. To discover then the error and ignorance of this Opinion, and the misunderstanding in the grounds thereof, any man may see plainly that

these men do not observe and consider, That it was not that *Pure and Primitive Knowledge of Nature*, by the light whereof man did give names to other Creatures in Paradise, as they were brought before him, according to their Proprieties, which gave the occasion to the Fall; but it was that proud Knowledge of *Good and Evil*, with an intent to shake off God and to give Law unto himself. Neither is it any *Quantity of Knowledge*, how great soever, that can make the mind of man to swell; for nothing can fill, much less extend the Soul of man but God, and the contemplation of God: therefore *Solomon* speaking of the two Principal Senses of Inquisition, the Eye and the Ear, affirms, *That the Eye is never satisfied with seeing, nor the Ear with hearing*; and if there be no fulness, then is the Continent greater than the Content. So of Knowledge it self and the Mind of Man, whereto the Senses are but Reporters, he defines likewise in the Words plac'd after the Calendar or Ephemerides which he makes of the diversity of times and seasons for all Actions and Purposes, concluding thus, *God hath made all things beautiful and decent in the true return of their seasons; also he hath placed the world in mans heart, yet cannot man find out the work which God worketh from the beginning unto the end*: By which words he declares, not obscurely, that God hath framed the Mind of Man, as a Mirror or Glas capable of the Image of the universal world, and as joyful to receive the Impressions thereof, as the Eye joyeth to receive Light; and not only delighted in the beholding the variety of things and the vicissitudes of times, but raised also to find out and to discern the inviolable Laws and infallible Decrees of Nature: And although he seem to insinuate that the supreme or summary Law of Nature, which he calleth *the work which God worketh from the beginning to the end*, is not possible to be found out by Man; yet that doth not derogate from the Capacity of the Mind, but may be referred to the impediments of Knowledge, as the shortness of life, the ill conjunction of labours deprav'd, and unfaithful Tradition of Knowledge over from hand to hand; and many other inconveniencies wherewith the condition of Man is ensnared and involved. For that no parcel of the World is denied to Man's enquiry or invention he clearly declares in another place, where he saith, *The spirit of a man is as the Lamp of God wherewith he searcheth the inwards of all secrets*. If then such be the capacity and receipt of the Mind of Man, it is manifest that there is no danger at all from the *Proportion or Quantity of Knowledge* how large soever, lest it should make it swell or out-compass it self but; merely in the *Quality*, which being in Quantity more or less, if it be taken without the true Corrective thereof, hath in it some nature of malignity, or venom full of stauous symptoms. This Antidote, or Corrective spice, the mixture whereof tempers Knowledge and makes it so sovereign, is *Charity*, which the Apostle immediately adds in the former clause, saying, *Knowledge blows up, but Charity builds up*; Not unlike to that which he delivers in another place, *If I spake* (saith he) *with the tongues of Men and Angels and had not Charity, it were but as a tinkling Cymbal*: Not but that it is an excellent thing to speak with the tongues of Men and Angels, but because if it be sever'd from *Charity*, and not refer'd to the publick good of Mankind, it rather exhibits a vain and empty glory, than any substantial and solid fruit.

As for that Censure of *Solomon*, concerning the excess of writing and reading

reading Books, and the anxiety of spirit which redoundeth from Knowledge; and that admonition of S. Paul, that we be not seduced by vain Philosophy; if those places be rightly understood, they do very excellently set forth the true bounds and limitations, whereby humane knowledge is confin'd and circumscribed, yet so as without any such contracting and coarctation, it may comprehend all the universal nature of things. These limitations are three: *The first, that we do not so place our felicity in Knowledge, as we forget our Mortality: The second, that we make application of our Knowledge, to give our selves repose and contentment and not distaste or repining: The third, that we do not presume by the contemplations of Nature to attain the Mysteries of God.* § For as touching the first, Solomon doth excellently expound himself in the same Book; *I saw well, saith he, that knowledge recedes as far from ignorance as light doth from darkness, and that the wise mans eyes keep watch in his head, whereas the fool roundeth about in darkness; but withal I learned that the same mortality involves them both.*

Eccles. 2.

§ For the second, certain it is, no anxiety, or perturbation of mind resulteth from knowledge, otherwise than merely by accident: For all knowledge and wonder (which is the seed of knowledge) is an impression of pleasure in it self; but when we fall to framing conclusions out of our Knowledge, which obliquely applied to our particular purposes, either minister weak fears or vast desires, then there grows that vexation and trouble of Mind, whereof we speak: for then Knowledge is no more *Lumen siccum*, as Heraclitus the Profound would have it, *Lumen siccum optima anima*, but it becomes *Lumen madidum*, or *maceratum*, being steeped and infused in the humours of the Affections.

§ The third rule deserves a little to be stood upon, and not to be lightly passed over: For if any man shall think by view and enquiry into these sensible and material things, to attain that light whereby he may reveal unto himself the Nature and Will of God, then indeed, *is he spoil'd through vain Philosophy.* For the Contemplation of the Creatures, having regard to the Creatures themselves, produceth Knowledge, but having regard to God, wonder only, which is a broken Knowledge. And therefore it was most aptly said by one of Plato's School, *That the sense of man carries a resemblance with the sun, which opens and reveals the terrestrial Globe, but conceals and seals up the stars and celestial Globe:* So doth the Sense discover natural things, but it darkens and shuts up divine. And hence it hath proceeded, that some of the chosen rank of the more learned have fallen into Heresie, whilst they have sought to fly up to the secrets of the Deity, by the waxen wings of the Senses.

Philo Fed.
de Somnitiis.

§ As for the conceit of those who are of opinion that *too much knowledge should encline the mind to Atheism, and that the ignorance of the second Causes, should be, as it were a Midwife to our Piety towards the first.* I would willingly charge these in the language of Job, *Will you lye for God as one man doth for another to gratifie him?* For certain it is that God works nothing in Nature according to ordinary course but by second Causes; and if they would have it otherwise believed, it is mere imposture, under colour of Piety to God, and nothing else but to offer unto the Author of Truth the unclean sacrifice of a Lye. But farther, it is an assured truth and a conclusion of Experience, That a little or superficial taste of *Philosophy*, may perchance incline the Mind of Man to *Atheism*

Job 13.

theism; but a full draught thereof brings the Mind back again to Religion. For in the entrance of Philosophy, when the second Causes, which are next unto the Senses, do offer themselves to the mind of man, and the mind it self cleaves unto them and dwells there, an oblivion of the highest Cause may creep in; but when a man passeth on farther and beholds the dependency, continuation and confederacy of Causes, and the works of Providence, then according to the Allegory of the Poets, he will easily believe that the *highest link of Natures chain must needs be tied to the foot of Jupiter's chair*. To close in a word; Let no man, upon a weak conceit of sobriety or ill applied moderation, think or maintain that a man can search too far, or be too well studied *in the Book of God's word, or in the Book of God's works; Divinity or Philosophy*; but rather let men awake themselves and chearfully endeavour, and pursue an endless progress or proficiency in both: only let them beware lest they apply Knowledge to *swelling*, not to *charity*; to *ostentation* not to *use*: and again, that they do not unwisely mingle and confound these distinct Learnings of *Theology* and *Philosophy*, and their several waters together.

Homer.
Iliad. 9.

CHAP. II.

I. Discredits of Learning from the objections of Politicks, *That Learning softens mens Natures, and makes men unfit for the exercise of Arms. That it perverts mens dispositions for matter of Government. § Other particular indispositions pretended.* II. The Solution. *Learning makes not men unapt for Arms.* III. *Learning enables men for Civil affairs.* IV. Particular seducements imputed to Learning; As, *Curious Uncertainty, § Pertinacious Regularity, § Misleading Precedents, § Retired slothfulness, § Relaxation of Discipline,* are all rather cured than caused by Learning.

I.  Now let us descend to the Disgraces whereby Politicks defame Learning; They be these, *That Learning doth soften mens manners, and makes them more unapt for the honour and exercise of Arms: That it doth marr and pervert mens dispositions for matter of Government and Policy; which the study of Arts makes either too Curious by vanity of Reading; Or too peremptory by the strict rigour of Rules; Or too overweening, by reason of the greatness of examples; Or too incompatible with the times, by reason of the dissimilitude of examples; Or at least it doth divert and alienate mens minds from business and action, instilling into them a love of leisure and privateness.*

§ *And that it doth bring into States a relaxation of Discipline, whilest every man is more ready to argue than obey.* Out of this conceit Cato sur-named the Censor, one of the wisest men indeed that ever liv'd, when Carneades the Philosopher came in Embassage to Rome, and that the young men of Rome began to flock about him, being allured with the sweetness and Majesty of his eloquence, gave counsel in open Senate, *That they should give him his dispatch with all speed, lest he should infect and inchant the minds*

Plato in
M. Cato:

minds of the youth, and at unawares bring in an alteration of the manners and customs of the State. This same conceit or humor mov'd *Virgil*, preferring the honour of his country, before the reputation of his own Profession, to make a kind of separation between the *Arts of Policy*, and the *Arts of Literature*, challenging the one to the *Romans*, yielding the the other to the *Grecians*, in the verses so much renowned,

*Tu regere imperio populos Romane memento,
Hæ tibi erunt Artes*—————

*Virgil.
Æn. 6.*

And we see that *Anytus* the accuser of *Socrates*, laid it as an article of charge and accusation against him, that he did with the variety and power of discourses and disputation, embase, in the minds of young men, the Authority and Reverence of the Laws and Customs of their Country; and that he did profess a pernicious and dangerous Science, wherein, whoever was instructed, might make the worse matter seem the better, and to suppress Truth by force of Eloquence.

II. But these and the like imputations have rather a countenance of Gravity, than any sincerity of Truth: For experience doth witness that the self-same persons, and the self-same times, have flourish'd in the glory of *Arms and Learning*. As for men, we may instance in that noble pair of Emperors *Alexander the Great*, and *Julius Cesar the Dictator*; the one was *Aristotle's* Scholar in Philosophy; the other *Cicero's* Rival in Eloquence. But if any man had rather call for Scholars that have become great Generals, than Generals that were great Scholars, let him take *Epaminondas* the Theban, or *Xenophon* the Athenian; whereof the one was the first that abated the power of *Sparta*, and the other was the first that made way to the overthrow of the *Monarchy of Persia*. And this conjunction of *Arms and Letters*, is yet more visible in times than in persons, by how much an Age is a greater object than a Man: For the self-same times with the *Ægyptians*, *Assyrians*, *Persians*, *Grecians* and *Romans*, that are most renowned for *Arms*, are likewise most admired for *Learning*; so that the gravest Auctors and Philosophers, the greatest Captains and Governors have lived in the same Ages. Neither indeed can it otherwise be; for as in man the ripeness of the strength of the body and the mind comes much about one age, save that the strength of the body comes somewhat the more early; so in States, the glory of *Arms and Learning* (whereof the one correspondeth to the body, the other to the soul of man) have a concurrence, or a near sequence of Time.

III. Now for matter of *Policy and Government*, that *Learning* should rather be an impediment than an adjunct thereunto is a thing very improbable. We all confess that it is an unadvised act to commit a natural Body, and the cure of Health; to *Emperique Physitians*, who commonly have a few receipts which seem to them to be universal Remedies; whereupon they are confident and adventurous. when yet they neither know the causes of Diseases, nor the Complexions of Patients, nor the peril of Symptoms, nor the Method of Cures. We see it a like error in those, who for expedition of their Causes and Suits rely upon petty Advocates and Lawyers, which are only men of Practice, and not grounded in their Books; who are many times easily surpriz'd, when a new case falls out besides the common Road of their experience: So by

like

like reason; it cannot but be a matter of doubtful consequence, if States be managed by Emperique State-men. On the contrary, it is almost without instance, that ever any Government was disastrous, that was in the hand of Learned Governours. For howsoever it hath been ordinary with Politick men to extenuate, and disable Learned men by the name of Pedants, yet History, which is the mistress of Truth, makes it appear in many particulars, that the Government of Princes in minority, hath far excelled the Government of Princes of mature age, even for that reason which Politicks seek to traduce, which is, that by that occasion the State hath been in the hands of Pedants. Who knows not that for the first five years so much magnified during the minority of Nero, the Burden of the State was in the hands of *Seneca* a Pedant? So likewise *Gordianus* the younger owes the ten years applauded government to *Misitheus* a Pedant. And with the like happiness *Alexander Severus* govern'd the State in his minority, in which space women rul'd all, but by the advice and counsel of Preceptors and Teachers. Nay, let a man look into the Government of the *Bishop of Rome*, as by name, into the Government of *Pius Quintus* or *Sextus Quintus* in our times, who were both at their entrance esteemed but as *Pedantical Friars*; and he shall find, that such *Popes* do greater things, and procede upon truer Principles, than those which have ascended to the Papacy from an education and breeding, in affairs of estate and Courts of Princes. For though men bred in learning are, perchance, not so quick and nimble in apprehending occasions, and accommodating for the present to points of convenience, which the Italians call *Raggioni di Stato*, the very name whereof *Pius Quintus* could not hear with patience, but was wont to say, *That they were the inventions of wicked men, and repugnant to Religion and the moral Vertues*; yet in this there is made ample recompence, that they are perfect and ready, in the safe and plain way of Religion, Justice, Honesty, and the Moral Vertues; which way, they that constantly keep and pursue, shall no more need those other Remedies, than a sound body needs Physick. And besides, the space of one mans life can not furnish presidents enough to direct the event of but one mans life. For as it hapneth sometimes that the great Grand-child, Nephew or Pro-nephew, resembleth the Grand-father, or great Grand-father more than the Father; so many times it comes to pass, that the occurrences of present times may sort better with ancient examples, than with those of later or immediate times. Lastly, the wit of one man can no more countervail the latitude of Learning, than one mans means can hold way with a common purse.

Platon.

IV. And were it granted that those *seducements* and *indispositions* imputed to Learning, by Politicks, were of any force and validity, yet it must be remembred withal, that *Learning* ministrith in every of them, greater strength of medicine or remedy, than it offereth cause of *indisposition* or *infirmity*. For if that *Learning* by a secret influence and operation makes the mind *irresolute and perplext*, yet certainly by plain precept it teacheth how to unwind the thoughts, how far to deliberate, when to resolve; yea, it shews how to protract, and carry things in suspense without Prejudice till they resolve.

s Be it likewise granted that *Learning* makes the minds of men more *peremptory and inflexible*, yet withal it teacheth what things are in their nature

nature demonstrative, and what are conjectural; and propounds as well, the use of distinctions, and exceptions, as the stability of rules and principles.

§. Be it again, *that learning misleads and wresteth mens minds, whether by disproportion, or dissimilitude of examples*, I know not, yet I know well, that it unfoldeth, and laies open as well the force of circumstances, as the errors of comparisons, and the cautions of applications; so that in all these it doth more rectifie mens minds, then pervert them. And these remedies *Learning* doth every way convey and insinuate by the quick penetration, and forcible variety of examples. Let a man look into the errors of *Clement VII*, so lively described by *Guicciardine*, who served under him; or into the errors and waverings of *Cicero*, painted to the life by his own pensill, in *his Epistles to Atticus*, and he will fly a pace from being inconstant and irresolute in his designs. Let him look into the errors of *Phocion*, and he will beware how he be obstinate or inflexible. Let him read the fable of *Ixion*, and it will dispel vaporous hopes and such like fumes and clouds. Let him behold *Cato the Second*, and he will never be one of the *Antipodes*, to tread opposite to the present world.

§ Now for the conceit, *That learning should be a friend to sloth, and should orespread the mind with a sweet slumber of repose and retiredness*; it were a strange thing, if that which accustometh the mind to a perpetual agitation, should be the *Patroness to slothfulness*: whereas contrariwise it may be truly affirmed, that no kind of men love business for it self, but those that are *Learned*; for other Persons love affairs and business for the *Profit*, as hirelings the work, for the wages; others for *Honor*, for while they are in Action, they live in the eyes of men and refresh their reputation, which othewise would wear; others for *Power* and the *Priviledges of Fortune*, that they may pleasure their friends, and displeasure their foes; others that they may *exercise some faculties wherein they take a pride*, and in this imagination, entertain their thoughts in a good humour and pleasing conceit towards themselves; others *to advance other ends*: so that as it is said of untrue valours, that some mens valours are in the eyes of those that look on, so the industry and courage of these men seems to aim at this, that other may applaud them, or they hugg themselves in the contemplation of their own designments: only *Learned men* love business and imployment, as actions agreeable to nature, and no less healthful to the mind than exercise is to the body; taking pleasure in the Action it self, and not in the purchase: so that, of all men living, they are the most indefatigable, if it be towards any business, which can replenish and detain the mind according to the dignity thereof. And if there be found some laborious in reading and study, and yet idle in business, and action, this grows not from learning, but from some weakness or softness of body or mind, such as *Seneca* speaks of, *Quidam* (saith he) *tam sunt umbratiles ut putent in turbido esse quicquid in luce est*. Well may it be, that such a point of a mans nature may make him give himself to learning, but it is not learning that breeds, or implants any such point in his nature. But if any man notwithstanding resolvedly maintaineth, *that Learning takes up too much time which might otherwise be better imployed*; I answer, that no man can be so straitned and opprest with business, and an active course

Controv:
lib. 4.
Prov.

of life, but may have many vacant times of leasure, whilst he expects the returns and tides of business, except he be either of a very dull temper and of no dispatch; or ambitious (little to his credit and reputation) to meddle and ingage himself in imployment of all natures and matters above his reach. It remaineth therefore to be enquired, in what matter, and how, those spaces and times of Leasure, should be filled up and spent; whether in pleasures or study; sensuality; or contemplation, as was well answered by *Demosthenes* to *Æschines*, a man given to pleasure, who when he told him by way of reproach, *that his orations did smell of the Lamp, indeed* (said *Demosthenes*) *there is great difference between the things that You and I do by lamp-light*: Wherefore let no man fear lest learning should expulse business; nay rather it will keep and defend the possessions of the mind, against idleness and pleasure, which otherwise, at unawares, may enter, to the prejudice both of Business and Learning.

Plut. in
Demost.

§ Again, whereas they object, *That learning should undermine the reverence of Laws and Government*, it is a meer calumny without all shadow of truth: For to say that a blind obedience should be a surer obligation than an ocular duty, is all one to say, that a blind man may tread surer by a guide, than a seeing man can with the use of a light and his eyes. Nay it is without all controversie that Learning doth make the mind of man, gentle, ductile, maniable and pliant to government; whereas ignorance makes them churlish, thwart, and mutinous; which the Records of time do clearly manifest, considering that the most unlearned, rude and barbarous times have been most subject to seditions, tumults and changes. As for the judgement of *Cato the Censor*, he was well punished for his *blasphemy against learning*: For when he was past threescore years old, he was taken with an extreme desire to go to the school again, and to *learn the greek tongue*; which doth well demonstrate that his former censure of the Grecian Learning was rather an affected gravity, than the inward sense of his own opinion. As for *Virgil's verses*, though it pleased him to brave the world in taking to the *Romans the Art of Empire*, and leaving to others all other *Arts*, as popular and servile; yet so much is manifest, that the Romans never ascended to that *hight of Empire*, till the time they had ascended to the *hight of Arts*. For in the time of the two first *Cæsars*, Persons most perfect in the State-principles of Government, there lived contemporaries, *the best Poet, Virgilius Maro*; *The best Historiographer, Titus Livius*; *the best Antiquary, Marcus Varro*; *the best or second Orator Marcus Cicero*; without question the chiefest, every one in their several faculty, that to the memory of man are known. Lastly, as for the *accusation of Socrates*, only this I say, The time must be remembered when it was prosecuted, namely under the *thirty Tyrants*, of all mortals the bloodiest, basest and most unworthy of Government: which revolution of State and Time was no sooner over, but *Socrates*, whom they had made a Person Criminal, was made a Person Heroical, and his Memory accumulate with all honours divine and humane; and those Discourses of his, which were then termed Corrupting of Manners, were after celebrated by all Posterity for most sovereign medicines of Mind and Manners. And let this serve for answer to *Politiques*, which in their humorous severity, or in their feigned gravity, have presumed to throw imputations

Plut. in M.
Cato.

imputations upon Learning; which redargution nevertheless, save that we know not whether our labours may extend to other ages, seems not so needful for the present, seeing the aspect and favour of two most learned Princes (*Queen Elizabeth and Your Majesty*, being as *Castor and Pollux*, *Lucida Sidera*, Stars of a most benign influence) hath wrought in us of Britain, *so much love and reverence towards Learning.*

CHAP. III.

I. *Discredits of Learning from Learned mens Fortunes, Manners, Nature of studies.* II. *In the Fortunes scarcity of Means, & Obscurity of life. & Meanness of Employment.* III. *In their Manners, Too Regular for the times, & Too sensible of the good of others, and neglective of their own. & They fail in applying themselves to Particular Persons. & They fail in some points of Behaviour. & Gross Flattery practis'd by some Learned; & Instanced in the Modern Dedication of Books. & Discreet Morigeration allowed.*

I. **N**OW come we to the third sort of Discredit or Diminution of Credit, that redounds upon Learning from learned men themselves, which commonly cleaveth fastest. It is derived either from *their Fortune*, or from *their Manners*, or from *the Nature of their studies*; whereof the first is not in their power; the second is not to the point; so as the third alone seemeth properly to fall into enquiry: but because we are not in hand with the true value of things, but with popular estimation, it will not be amiss to insinuate somewhat also of the two former.

II. The Derogations therefore, or Diminutions of Credit which grow to Learning from *the fortune of the Learned men*, are taken either from their *Poverty and scarcity of Means*; or from their *obscure and private course of Life*; or from the *meanness of employment wherein they are conversant.*

§. As concerning *Want*, and that usually is the case of Learned men; that they are *poor*, and commonly begin with little, and grow not rich so fast as other men, which convert their labours chiefly to lucre and encrease; it were good to leave the common Place in Commendation of *Poverty* to some *Frier Mendicant* to handle, (if by their leaves I may be so bold) to whom much was attributed by *Machiavell* in this point, when he said, *that the Kingdom of the clergie had been long before at an end, if the reputation and reverence towards the poverty of Friers and Monks, had not born out the scandals of the superfluties and excesses of Bishops and Prelates*: so a man might say that the felicity and magnificence of Princes and great Persons, had long since turned to Barbarism and Rudeness, if the *Poverty of Learning* had not kept up civility and honour of life. But without such advantages of hunting after the praise thereof it is worthy observation, what a sacred and reverend thing *Poverty of Fortune* was, for some ages in the Roman State, which yet was a State without Paradoxes: For thus saith *Titus Livius* in his in-

Dell. Hist.
Eios. lib. 15

Præf. lib. 1. introduction, *Either my affection to the work I have undertaken deceives me, or there was never State more great, more religious, more richly furnish'd with good presidents, nor which avarice and riot conquered so late, nor where so great reverence to Poverty and Parcimony continued so long.* So likewise after the State of Rome was now degenerate, we read that when *Cæsar the Dictator* took upon him a Restoration of the collapsed state, one of his confidents gave him this counsel, That of all Points the most summary to such a designment, as he went about, was by all means to take away the estimation of wealth, For (saith he) *these and all other evils, together with the reputation of mony shall cease, if neither publique Officers nor any other Dignity, which commonly are so coveted, were exposed to sale.* To conclude this point, as it was truly said that *Rubor est virtutis Color*, though sometimes it come from vice; so you may truly say, *Paupertas est virtutis fortuna*, though sometimes it may proceed from misgovernment and improvidence. Surely this is *Solomons Censure, Qui festinat ad divitias non erit insons*, and Precept, *Buy the truth and sell it not*; So wisdom and knowledge judging it right and equal that means should be employed to get Learning, and not Learning be applied to gather up means.

Orat. ad C.
Cæsar.
Salust. im.
Putata.
Laert. in.
Diog.
Cyn.

Prov. 28.
Prov. 23.

§ To what purpose should we speak of the *privateness and obscureness of life*, which is objected to learned men? It is a Theme so common and so frequently handled by all, to extol *Leisure and retiredness*, not taxed with sensuality and sloth, before a Civil and Active life; for safety, liberty, sweetness, dignity, or at least freedom from indignities, as no man handles this subject, but handles it well: such a consonancy it hath to mens conceptions in the expressing; and to mens content in the allowing. This only I will add, that Learned men forgotten in States, are like the Images of *Cassius and Brutus* in the funerals of *Junia*, of which, not to be represented as others were, *Tacitus* saith, *Eo ipso præfulgebant quod non visebantur.*

Annal. 3.

Joel 2.

§ For *Meanness of employment assigned to Learned men*, that which is most traduced to contempt is, That the government of childhood and youth is commonly allotted to them, the contempt of which age is transferred upon the Preceptors or Tutors. But how unjust this traducement is, if you will reduce things from popularity of opinion, to measure of reason, may appear in that we see men are more careful what they put into new vessels, than into a vessel season'd; and more curious what mould they lay about a young plant, than a plant corroborate: So as it is manifest that the weakest terms and times of all things, use to have the best applications and helps. Harken, if you please, to the Hebrew Rabbins, *Your young men shall see visions, your old men shall dream dreams*; from this Text they collect, that youth is the ^{more} *worthier* age, by so much as Revelation is more clear by visions, than by dreams. And it is worth the noting that however *Pedants* have been the derision and scorn of *Theaters*, as the Apes of *Tyranny*; and that the modern looseness or negligence hath taken no due regard to the choice of *School-masters and Tutors*; yet it hath been an ancient complaint drawn down from the best and wisest times, even to our age, that States were too busie with their *Laws* and too negligent in point of *Education*. Which excellent part of Ancient Discipline hath been in some sort revived of late times by the *Colleges of the Jesuits*, whose pains and diligence

gence when I consider, as well in the culture of knowledge, as information of manners, the saying of *Agésilas* touching *Pharnabazus* comes into my mind, *Talis cum sis utinam noster esses.* And thus much concerning the discredits drawn from the *Fortunes and Condition of Learned men.*

Plut. in
Agéfil.

III. As touching the *Manners of Learned men*, it is a thing belonging rather to their individual Persons, than their studies and point of learning: No doubt there is found among them, as in all other Professions, and Conditions of life, men of all temperatures, as well bad as good, but yet so, as it is not without truth that is said, *abire studia in mores*; and that Learning and Studies, unless they fall upon very depraved dispositions, have an influence and operation upon the manners of those that are conversant in them, to reform nature and change it to the better.

§ But upon an attentive and indifferent review, I for my part, can not find any disgrace to learning can proceed from the *Manners of Learned men*, adherent unto them as they are Learned; unless peradventure it be a fault (which was the supposed fault of *Demosthenes*, *Cicero*, *Cato the second*, *Seneca*, and many more) that because the times they read of, are commonly better, than the times they live in; and the duties taught, better than the duties practised; they contend too far, to reduce the corruption of manners to the honesty of precepts, and prescripts, of a too great height, and to impose the Laws of ancient severity upon dissolute times: and yet they have Caveats enough touching this austerity out of their own springs: For *Solon*; when he was asked *Whether he had given his Citizens the best laws? the best* (said he) *of such as they would receive.* So *Plato*, finding that his own heart could not agree with the corrupt manners of his Country, refused to bear place or office, saying, *That a mans Country is to be used as his Parents were, that is, with persuasion and not with violence, by entreating and not by contesting:* And *Cæsars* counsellor put in the same caveat, saying, *non ad vetera instituta revocans quæ jam pridem corruptis moribus ludibrio sunt:* And *Cicero* notes this error directly in *Cato the second*, writing to his friend *Atticus*, *Cato optime sentit sed nocet interdum Reipub. loquitur enim tanquam in Reipub. Platonis, non tanquam in facie Romuli.* The same *Cicero* doth excuse and expound the Philosophers for going too far, and being too exact in their Prescripts, *These same Preceptors and Teachers*, (saith he) *seem to have stretched out the line and limits of Duties somewhat beyond the natural bounds, that when we had laboured to reach the highest point of Perfection, we might rest where it was meet:* and yet himself might say, *Monitis sum minor ipse meis*; for he stumbled at the same stone, though in not so extreme a degree.

Plut. in
Solon.

In vita. in
epist. ali-
bi.

Orat. ad
C. Cæs.
Salust. ad
scripta.
Ad Attic.
lib. 2. ep. 1.

Pro L.
Muræna.

§ Another fault which perchance not undeservedly is objected against Learned men, is this, *that they have preferr'd the honour and profit of their Country, and Masters before their own fortunes and safeties.* So *Demosthenes* to his Athenians, *My Counsels* (saith he) *if you please to note it, are not such whereby I should grow great amongst you, you become little amongst the Grecians; but they be of that nature as are sometimes not good for me to give, but are always good for you to follow.* So *Seneca* after he had consecrated that *Quinquennium Neronis* to the eternal glory of Learned Governors, held on his honest and loyal course of Good

Oratie. ad
Corona.

and

Mat. 25.

and Free Counsel, after his Master grew extremely corrupt to his great peril and at last to his ruine. Neither can it be otherwise conceived; for Learning endues mens minds with a true sense of the frailty of their Persons; the Casualty of fortune; the Dignity of the soul; and their vocation: which when they think of, they can by no means perswade themselves that any *advancement of their own fortunes*, can be set down as a true and worthy end of their being and ordainment. Wherefore they so live, as ever ready to give their account to God, and to their Masters under God, whether they be Kings or States they serve, in this stile of words, *Ecce tibi Lucrifeci*, and not in that *Ecce mihi Lucrifeci*. But the corrupter sort of Politiques, that have not their minds instituted and establish'd in the true apprehension of Duties, and the contemplation of good in the universality, *refer all things to themselves*, as if they were the *worlds Center*, and that the *concurrence of all lines should touch in them and their fortunes*; never caring in all tempests, what becomes of the Ship, so they may retire and save themselves in the Cock-boat of their own fortune. On the contrary, they that feel the waight of Duty, and understand the limits of self love; use to make good their places, and duties, though with peril: and if they chance to stand safe in seditions and alterations of times and Government, it is rather to be attributed to the reverence which honesty even wresteth from adversaries, than any *versatile or temporizing advantage in their own carriage*. But for this point of tender sense, and fast obligation of duty, which without doubt Learning doth implant in the mind, however it may be taxed and amerced by Fortune; and be despised by Politiques in the depth of their corrupt principles, as a weak and improvident virtue, yet it will receive an open allowance, so as in this matter there needs the less disproof or excusation.

Seneca.

§ Another fault there is incident to Learned men, which may sooner be excused than denied, namely this; *That they do not easily apply and accommodate themselves to persons with whom they negotiate and live*: which want of exact application ariseth from two causes; *The first is, the largeness and greatness of their minds, which can hardly stoop and be confined within the observation of the nature and custom of one person*. It is the speech of a Lover, not of a wise man, *Satis magnum alter alteri theatrum sumus*. Nevertheless I shall yield that he that cannot contract the light of his mind, as he doth the eye of his body, as well as disperse and dilate it, wants a great faculty for an active course of life. *The second cause is the honesty and integrity of their nature*, which argueth no inhabilitie in them, but a choice upon judgement; for the true and just limits of observance towards any person extend no farther, than so to understand his inclination and disposition, as to converse with him without offence; or to be able, if occasion be offered, to give him faithful counsel, and yet to stand upon reasonable guard and caution, in respect of our selves: but to be speculative into others, and to feel out a mans disposition, to the end to know how to work him, winde him and govern him at pleasure; is not the part of an ingenious nature, but rather of a heart double and cloven; which, as in friendship, it is want of integrity, so towards Princes and Superiours it is want of Duty. For the Custom of the *Levint*, whereby it was accounted a hainous offence, to gaze and fix their eyes upon Princes, is indeed, in the outward ceremony

mony, barbarous, but good in the moral; for it becomes not Subjects by bent and inquisitive observations, to penetrate into the *hearts* of Prov. 25. *Kings*, which the Scripture hath declared to be *inscrutable*.

§ There is yet another fault with which I will conclude this Part, which is often noted in Learned men; namely, *that in small and outward matters of behaviour and carriage* (as in countenance, gesture, march, ordinary discourse, and the like) *they do many times fail to observe decency and discretion*; so as the vulgar sort of capacities make a judgement of them in greater matters, by that which they find wanting in small and ordinary points of Action. But this prejudication doth oftentimes deceive them: nay let them know, they have their answer from *Themistocles*, who being invited to touch a Lute, said, arrogantly enough, being applyed to himself, but pertinently to the purpose in hand, *That he could not indeed fiddle, but he knew how to make a small Town, a great State*. And there are, no doubt, many well seen in the Arts of Government, and Policy, which are to seek in ordinary conversation and punctual occasions. I refer such scoffers to the *Elogie Alcibiades* gave of his Master *Socrates*, whom he compar'd to the *Gallipots of the Apothecaries*, which on the outside were drawn with *Apes, Owls, and Antiques*, but contained within precious liquors and sovereign confections; acknowledging that to vulgar capacity and popular report, he was not without some superficial levities, and deformities, but was inwardly replenisht with excellent powers and virtues. And so much touching the Point of *Manners of learned men*. Plut. in Themist. Plato in Conv.

§ In the mean time I thought good to advertise, that I have no purpose to give allowance to some *base and unworthy Conditions of some Professors*, whereby they have discredited both Themselves and Learning: such were those *trencher Philosophers*, which in the later age of the Roman state; were usually in the houses of great Persons; whom not improperly you may call *solemn Parasites*: of which kind *Lucian* makes a merry description of the Philosopher, that the great Lady took to ride with her in the Coach, and would needs have him carry her little Dog *Melitans*; which he doing officiously and yet uncomely, the Page scoffing said, *I doubt our Philosopher of a Stoick will turn Cynique*. De Merc. conduct. But above all the rest, the gross and palpable flattery whereunto many not unlearned have abased and abused their wits and pens, turning as *Du Bartus* saith *Hecuba* into *Helena*, and *Faustina* into *Lucretia*, hath diminisht the prize and estimation of Learning.

§ Neither is the *Modern Dedication of Books to Patrons to be Commended*; for that Books, such as are worthy the name of Books, ought to have no Patron but *Truth and Reason*. The custom of the Ancients was better, who were wont to *dedicate their writings only to private and equal friends*, or to entitle the Books with the names of such friends; or if they Dedicated their Books to Kings or great Persons, it was to some such as the Argument of the Book was fit and proper for. These and the like Courses may deserve rather apprehension than defence.

§ Nor say I this, as if I condemned the *Morigeration and application of Learned men, to men in fortune and place*; for the answer was good that *Aristippus* made to one that askt him in mockery, *How it came to pass that Philosophers were followers of Rich men, and not Rich men of Philo-* Laert. in Aristip.

Ibid.

Spartian.
in Ha-
drian.

sophers? He answered soberly and yet sharply, *That it was because Philosophers knew well what they had need of, but Rich men did not.* Of like nature was the answer which the same Philosopher made when having a Petition to *Dionysius* and no ear given to him *he fell down at his feet in manner of a Worshipper, whereupon Dionysius staid and gave him the hearing, and granted it:* but a little after, some person tender of the honour and credit of Philosophy, reproved *Aristippus* that he would offer the Profession of Philosophy such an indignity as for a private suit to fall to a Tyrants feet? to whom he replied; *That was not his fault, but it was the fault of Dionysius that had his ears in his feet.* Neither was it accounted weakness, but a discretion in him that would not dispute his best with *Adrianus Caesar*, excusing the fact, *That it was reason to yield to him that commanded thirty Legions:* These and such like applications and stoopings of Learned men below the terms of Gravity, at the command of necessity or the advantage of occasion, cannot be condemned; for though they may seem, at first sight, somewhat base and servile, yet in a judgement truly made, they are to be accounted *submissions* to the *Occasion* and not the *Person*.

CHAP. IV.

- I. *Distempers of Learning from Learned mens studies, are of three sorts.*
 Phantastical Learning, Contentious Learning, Delicate Learning.
 II. *Delicate Learning, a Curiosity in words through Profuseness of speech.* § *Decent expression commended.* § *Affected Brevity censured.* III. *Contentious Learning, a Curiosity in matter, through the novelty of terms, or strictness of Positions.* § *A vanity either in Matter or in Method.* IV. *Phantastical Learning hath two branches, Imposture, Credulity:* § *Credulity is a belief of History.* § *Or a belief of Art or Opinion; and that either Real in the Art it self.* § *Or Personal in the Author of such an Art, or Science.*

LET us now proceed to those *Errors, and Vanities, which have intervened amongst the studies of Learned men, and therewith are intermingled;* which is the principal point and proper to the present Argument; wherein my purpose is not to patronize errors, but by a Censure and separation of the errors, to sift out that which is sound and solid, and to deliver the same from aspersions. For we see it is the manner of men, especially of envious persons, to scandalize, and deprave that which retains the State and Virtue, by taking advantage upon that which is corrupt and degenerate; as the Heathens in the Primitive Church us'd to blemish and taint the Christians, with the faults and corruptions of Heretiques: Nevertheless I have no meaning to make any exact animadversion of the *Errors, and Impediments in matters of Learning,* which are more secret and remote from vulgar opinion, but only to speak of such as do fall under a common and popular observation, and known, or at least, which recede not far of therefrom.

I. I find therefore chiefly three vanities, and vacuities in Learning, which have given occasion to the reproach and disgrace thereof. For *those things* are esteemed *vain* which are either *false*, or *frivolous*; namely, wherein there is, either no truth, or no use: *those Persons* we esteem vain, which are either *Credulous* in things false, or *Curious* in things of little use. And *Curiosity* is either in *matter* or in *words*; that is when either labour is spent in *vain matters*, or time is wasted in the delicacy of *fine words*: so that it is agreeable as well to true reason as approved experience, to set down three distempers of Learning: The first is *Phantastical Learning*; The second *Contentious Learning*; The third *Painted and Delicate Learning*: or thus, *vain Imaginations*, *vain Altercations*, *vain affectations*. And with the last I will begin.

II. This Distemper seated in the *superfluity and profuseness of speech* (though in times past by turns, it was in some price) about *Luthers* time, got up mightily into credit, and estimation. The heat and efficacy of Preaching, to win and draw on the people, began chiefly about that time to flourish; and this required a popular kind of expression. This was furthered by the Enmity and Opposition conceived in that same age against the *School-men*; whose writings were altogether in a differing stile and form of expression; taking liberty to coyn and frame new and rude terms of Art, without any regard to the pureness and elegance of speech, so they might avoid circuit of words, and deliver their sense and conceptions, in a precise exact expression: and so it came to pass a little after, that a greater care was taken for Words, than Matter; and many affected rather Comptness of stile; a round and clean Period; the sweet falling of the clauses; and illustrations by Tropes and Figures; than the waight of Matter, soundness of Argument, life of Invention, or depth of Judgment. Then sprang up the *flowing and watery vein of Osorius*, the Portugall Bishop, to be in price and request: Then did *Sturmius* spend such infinite and curious pains upon *Cicero* the Orator, and *Hermogenes* the Rhetorician. Then did our *Carre* and *Ascham* in their Lectures and Writings almost Deifie *Cicero*, and *Demosthenes*, and allure young Students to that polisht and flourishing kind of Learning. Then did *Erasmus* take occasion to make that scoffing kind of Echo, *Decem annos consumpsit in Legendo Cicerone*, to which the Echo answered, *One, Asine*. Then grew the Learning of the Schoolmen to be utterly despised, as rude and barbarous. In sum, the whole inclination and bent of those times was, rather about *Copy* than *Weight*. Here we see the first *Distemper of Learning*, when, as we have said, *men study Words and not Matter*. Whereof though I have represented examples of late times only, yet such vanities have been accepted, in some degree or other, in ancient times, and will be so hereafter. Now it is not possible but that this should have an operation to discredit and debase the reputation of Learning, even with vulgar capacities; when they see Learned mens Works, like the first letter of a Patent, which though it be limmed and set out with large flourishes, yet it is but a letter. And it seems to me that *Pigmaliions frenzie* is a good Emblem and Portraiture of this vanity; for what are words but the Images of matter, and except they be animated with the spirit of reason, to fall in Love with them, is all one as to fall in love with a Picture.

§. But yet notwithstanding it is a thing not hastily to be condemned to illustrate and polish the obscurity and roughness of Philosophy, with the *splendor of words* and *sensible elocution*, For hereof we have great examples in *Xenophon, Cicero, Seneca, Plutarch*, and even in *Plato* himself; and the use hereof is great: For though to the severe inquisition of Truth, and the deep progress into Philosophy, it is some hinderance, because it is too early satisfactory unto the mind, and quengeth the thirst and desire of farther search; yet if a man be to have any use of such knowledge in Civil occasions (of *Conference, Counsel, Perswasion, Discourse, and the like*) he shall find all that he desireth prepar'd and set out to his hand in those Auctors. But the excess of this is so justly contemptible, that, as *Hercules*, when he saw the Image of *Adonis, Venus minion*, in the Temple, said, *nil sacri es*; so there is none of *Hercules* his followers in Learning, I mean, the more industrious and severe inquirers into Truth, but will despise those *Delicacies* and *Affectations*, as indeed capable of no Divineness.

§ Little better is that kind of stile (yet neither is that altogether exempt from vanity) which neer about the same time succeeded this *Copy* and *superfluity of speech*. The labour here is altogether, *That words may be aculeate, sentences concise, and the whole contexture of the speech and discourse, rather rounding into it self, than spread and dilated*: So that it comes to pass by this Artifice, that every passage seems more witty and weighty than indeed it is. Such a stile as this we find more excessively in *Seneca*; more moderately in *Tacitus* and *Plinius Secundus*; and of late it hath been very pleasing unto the ears of our time. And this kind of expression hath found such acceptance with meaner capacities, as to be a dignity and ornament to Learning; nevertheless, by the more exact judgments, it hath been deservedly despised, and may be set down as a *distemper of Learning*, seeing it is nothing else but a hunting after words, and fine placing of them. And thus much of the first *Disease* or *Distemper* of Learning.

III. Now follows the distemper *settled in Matter*, which we set down as a *second disease of Learning*, and have designed it by the name of *contentious subtilty*; and this is in nature somewhat worse than that whereof we spake even now. For as the substance of Matter, is better than the beauty of words; so on the contrary, *vanity of Matter* is more odious than *vanity of words*. Wherein it seemeth that the reprehension of *St. Paul* was not only proper for those times, but Prophetical for the times following; and not only respective to Divinity, but extensive to all knowledge, *Devita prophanas vocum novitates*: For in these words he assigns two Markes and Badges of suspected and falsified science; The first is the *Novelty* and *Strangeness of Terms*; The other, the *strictness of Positions*; which of necessity induce opposition and so Alterations and Questions. Certainly like as many substances in nature, which are solid and entire, doe many times putrifie and corrupt into worms; so good and sound Knowledge doth often putrifie and dissolve into a number of subtle, idle, unwholsome, and (as I may terme them) *vermiculate* Questions, which seem indeed to have a kind of Motion and Quickness in them, and yet they are unsound and hollow, and of no solid use. This kind of *Degenerate Learning* corrupting it self, did chiefly reign amongst the *Schoolmen*; who having abundance of

of Leisure, sharp, and strong wits, and small variety of reading, (for their wits were shut up within the writing of a few Authors, chiefly *Aristotle*, their Dictator, as their Persons were shut up in the cells of Monasteries and Colleges) and for most part ignorant of the History either of Nature, or of Time, did out of no great Quantity of Matter, but infinite agitation of their Wit and Phancy, as of the spindle, spin out unto us those laborious webs of Learning, which are extant in their Books. For the Wit and Mind of Man, if it work upon Matter, by contemplating Nature and the Works of God, worketh according to the stuff, and is limited thereby; but if it worketh upon it self, as the *spider works his web*, then it is endless, and brings forth *Cobwebs of Learning*, indeed admirable for fineness of thred and work, but of no Substance and Profit.

§ This same unprofitable *subtilty* or *Curiosity*, is of two sorts; and it is discerned either in the subject and *Matter* it self, such as is fruitless *Speculation* or *Controversie*, whereof there are no small number, both in Divinity and Philosophy; Or in the *Manner* and *Method of handling*, which amongst School-men was this; Upon every Position or Assertion they framed objections, then solutions of those objections, which solutions, for the most part, were only distinctions, whereas indeed, the strength of all sciences, *like the Old mans Fagot*, consisteth not in every stick asunder, but in them all together united in the band. For the *Harmony of sciences*, that is when each part supports the other, is and ought to be the true and brief way of confutation and suppression of all the smaller sort of objections: but on the other side, if you draw out every Axiom, as the sticks of a Fagot, one by one, you may easily quarrel with them, and bend and break them at your pleasure. So that as it was said of *Seneca*, *verborum Minutiis rerum frangit pondera*, may truly be said of the School-men, *Questionum Minutiis scientiarum frangunt pondera*. For were it not better for a man, in a fair room to set up one great light, or branching candlestick of lights, whereby all may be seen at once, than to go up and down with a small watch candle into ever corner? And such is their *Method*, that resteth not so much upon evidence of Truth proved by Arguments, Authorities, Similitudes and Examples; as upon particular Confutations, and Solutions of every scruple, cavillation, and objection; thus breeding question upon question; even as in the former resemblance, *when you carry the light into one corner, you darken the rest*. So that the fable of *Scylla* seems to be a lively image of this kind of Philosophy or knowledge, which for the upper part had the shape of a comely Virgin, but below, *Candida succinctam latrantibus inguina monstribus*; So you shall find some generalities of the School-men, fair and well proportioned, and invented to some good purpose; but then when you descend to distinctions and decisions, in stead of a fruitful womb for the use and benefit of mans life, they end in monstrous and barking *Questions*. Wherefore it is no marvail, if this quality of Knowledge fall under, even popular contempt, the people being apt to condemn Truth upon occasion of Controversies, and altercations; and to think they are all out of their way; which never meet and agree among themselves; and when they see the digladiations of Learned men, about matters of no use or moment, they easily fall upon that judgement of *Dionysius* of Syracuse, *verba ista sunt senum*

Ætop.
Fab. Plut.
Mor.

Fabius
Qu. Instit.
X.

V rg. Buc.
Ecl 6.

Laertius
in Plato.

senum otiosorum. Notwithstanding it is most certain, that if the Schoolmen, to their great thirst of Truth, and unwearied travail of wit, had joynd variety, and universality of reading, and contemplation, they had certainly proved excellent lights to the great *advancement of all Arts and Sciences.* And thus much of the second Disease of Learning.

IV. For the third Disease of Learning which concerns *Deceit or Untruth*, it is of all the rest the foulest, as that which doth destroy the Nature and essential form of Knowledge, which is nothing but a representation of Truth. For the *Truth of Being*, and the *Truth of Knowing* are all one, differing no more than the direct beam, and the beam reflected. This vice therefore brancheth it self into two sorts, *Imposture* and *Credulity*; the one deceives, the other is deceived; which although they appear to be of a diverse nature; the one seeming to proceed of Cunning, and the other of Simplicity; yet for the most part they do concur, for as the verse noteth,

Horat.
Epi.

Per contatorem fugito nam garrulus idem est :

Intimating that an *Imquistive man is a Pratter*; so upon the like reason, a *Credulous man is a deceiver.* As we see it in Fame and Rumors, that he that will easily believe Rumors, will as easily augment Rumors; which *Tacitus* wisely notes in these words, *Fingunt simul creduntq;* such affinity there is between a propensity to *Deceive* and a facility to *Believe.*

Tacit.
Hist. l. I.

§ This *facility of Crediting* and accepting all things, though weakly authorized, is of two kinds, according to the nature of the Matter handled, for it is either *belief of History*, or (as the Lawyers speak) *matter of Fact*, or *matter of Opinion.* In the former kind, we see with what loss and detriment of Credit and Reputation, this error hath distain'd and embas'd much of the *Ecclesiastical History*, which hath two easily received and registred Reports and Narrations of Miracles wrought by Martyrs, Hermites, or Monks of the Desert, Anchorites, and other holy men; and of their Reliques, Sepulchers, Chappels, Images and Shrines. So in *Natural History*, we see many things have been rashly, and with little choice or judgement received and registred, as may appear in the writings of *Plinius*, *Cardanns*, *Albertus*, and diverse of the *Arabians*, which are every where fraught with forged and fabulous Reports, and those not only uncertain and untried; but notoriously untrue and manifestly convicted, to the great derogation of *Natural Philosophy* with grave and sober men. Wherein in truth the wisdom and integrity of *Aristotle* doth excellently appear, that having made so diligent and exquisite a *History of living Creatures*, hath mingled it so sparingly with any vain or feigned matter; but hath rather cast all *Prodigious Reports*, which he thought worthy the recording into one *commentary*; wisely discerning that matter of manifest Truth (which might be the experimental ground-work whereupon Philosophy and Sciences were to be built) ought not unadvisedly, to be mingled with matter of doubtful faith: and yet again things rare and strange, which to many seem incredible, are not wholly to be suppressed or denyed to be recorded to Posterity.

De Mirab.
Aufcult.

§ But that other *Facility of Credit*, which is yielded, not to *History* and *Reports*, but to *Arts* and *Opinions*, is likewise of two sorts; either when too much belief is attributed to *Arts* themselves, or to certain *Authors* in any Art. The *Sciences* themselves, which hold more of the fancy and of belief, than of Reason and Demonstration, are chiefly three *Astrologie*, *Natural Magique* and *Alchemy*; of which *Sciences* nevertheless the end and pretences are noble; For *Astrology* professeth to discover the influence and domination of the superiour Globe, over the inferiour: *Magique* proposeth to it self to call and reduce Natural Philosophy from variety of speculations, to the magnitude of works: *Alchemy* undertakes to make a separation and extraction of all heterogeneous and unlike parts of bodies, which in mixture of Nature are Implicate and Incorporate; and to refine and depurate bodies themselves, that are distained and soiled; to set at liberty such as are bound and imprisoned; and to bring to perfection such as are unripe. But the derivations and prosecutions, which are presumed to conduce to these ends, both in the Theory and in the Practise of *these Arts*, are full of *Errors* and *Vanity*. Nor is the Tradition and manner of Delivery for most part ingenious and without suspicion, but vail'd over and munited with devises and impostures. Yet surely to *Alchemy* this right is due, that it may truly be compared to the Husbandman whereof *Æsop* makes the Fable, that when he died, told his sons he had left unto them a great mass of Gold buried under ground in his Vineyard, but did not remember the particular place where it was hidden; who when they had with spades turn'd up all the Vineyard; gold indeed they found none; but by reason of their stirring and digging the Mold about the Roots of their Vines, they had a great Vintage the year following: so the painful search and stir of *Alchimiſts* to make Gold, hath brought to light a great number of good and fruitful experiments, as well for the disclosing of nature, as the use of mans life.

§ As for the *overmuch Credit* that hath been given to *Authors* in *Sciences*, whom they have invested with the power of *Dictators*, that their words should stand, and not of *Consuls* to give advice; the damage is infinite that *Sciences* have received thereby, as a Principal cause that hath kept them low at a stay, and that they have lien heartless, without any notable *Groweth* or *Advancement*. For hence it hath come to pass, that in *Arts Mechanical*, the first deviser cometh short, and time supplies and perfects the rest; but in *Sciences*, the first Author goeth farthest, and time looseth and corrupteth. So we see *Artillery*, *Sailing*, *Printing*, were imperfect, formless, and grossly managed at first, but in progress of time accommodated and refined. But contrariwise the *Philosophy* and *Sciences* of *Aristotle*, *Plato*, *Democritus*, *Hypocrates*, *Euclide*, *Archimedes*, were of most vigor in their Authors, and in process of time, became rather degenerate and embased, and lost much of their lustre; whereof the reason is no other, but that in *Arts Mechanical*, many wits and industries have contributed in one, in liberal *Arts* and *Sciences*, many wits and industries have been spent about, and yielded to the art of some one; whom (notwithstanding many times) his sectators have rather depraved than illustrated. For as water will not ascend higher than the level of the first Spring-head, from whence it descendeth; so knowledge derived from *Aristotle*, will never rise higher than the knowledge of
Aristotle.

Aristot.
de Rep.
Soph. lib.
1.

Aristotle. And therefore although the position be good, *Oportet discen-tem credere*, yet it must be coupled with this, *Oportet jam edoctum iudicio suo uti.* For Disciples owe unto Masters, only a temporary belief, and a suspension of their judgment, until they be fully instructed, and not an absolute resignation of their liberty, and a perpetual captivity of their judgements. Therefore, to conclude this point, I will say no more but this. *Let great Authors so have their due, as we do not derogate from Time, which is the Author of Authors and Parent of Truth.*

CHAP. V.

Peccant Humours in Learning. I. *Extreme affection to two extremes, Antiquity, Novelty.* II. *A distrust, that any thing New, should now be found out.* III. *That of all Sects and Opinions, the best hath still prevailed.* IV. *An over early reduction of Knowledge into Arts and Methods.* V. *A neglect of Primitive Philosophy.* VI. *A Divorce of the Intellect from the Object.* VII. *Infection of Knowledge in general from individual inclinations.* VIII. *An impatience of Doubt, hast to Assertion.* IX. *A Magistrall manner of Tradition of Knowledge.* X. *Aim of writers, Illustration, not Propagation of Knowledge.* XI. *End of studies, Curiosity, Pleasures, Profit, Preferments, &c.*

THUS have we at length gone over three Distempers or Diseases of Learning; besides the which, there are other, rather peccant Humours, than confirmed Diseases, which nevertheless are not so secret and intrinsique, but that they fall under a popular sense and reprehension, and therefore are not to be passed over.

I. The first of these is an *extreme affection of two extremities, Antiquity and Novelty*; wherein the daughters of *Time*, do take after the Father; for as *Time* devoureth his children, so these, one of them seeketh to depress the other; while *Antiquity* envieth there should be *new Additions*; and *Novelty* can not be content to add things *recent*, but it must deface and reject the *old*. Surely the advice of the Prophet is the true direction in this case, *Stare super vias antiquas & videte quam sit via recta & bona & ambulate in ea.* *Antiquity* deserveth that reverence, that men should make a stay a while, and stand thereupon, and look about to discover which is the best way; but when the discovery is well taken, then not to rest there, but cheerfully to make progression. Indeed to speak truly, *Antiquitas seculi, Juventus Mundi*, Certainly our times are the Ancient times, when the world is now Ancient, and not those which we count Ancient, *ordine retrogrado*, by a computation backward from our own times.

Jerem. 6.

Sen. ait.
Lact. Inst.
Lib. 1.

II. An other error induced by the former is, *a suspicion and dissidence, that any thing should be now to be found out, which the world should have mist and past over so long time*: as if the same objection might be made to *Time*, wherewith *Lucian* reproacheth *Jupiter*, and other the Hea-then

then Gods, For he wonders that they begat so many children in old time, and begot none in his time? and asks in scoffing manner, whether they were now become Septuagenary, or whether the Law Papia; made against old mens marriages, had restrained them? So it seems men doubt least time is become past children and generation. Nay rather the levity and inconstancy of mens judgements, is hence plainly discovered, which until a matter be done, wonder it can be done. So Alexander's expedition into Asia was prejudg'd as a vast impossible enterprize; yet afterwards it pleased Livie, so to slight it as to say of Alexander, *Nil aliud quam bene ausus est vana contemnere*: The same hapned unto Columbus in the western Navigation. But in intellectual matters it is much more common, as may be seen in many propositions in *Euclid*, which till they be demonstrate, they seem strange to our assent; but being Demonstrate, our mind accepteth of them by a kind of Recognisance or Retractation, (as the Lawyers speak) as if we had understood and known them before.

Hist. lib. 9.

III. An other error which hath some affinity with the former is, a conceit That all sects and ancient opinions, after they have been discussed and ventilated; the best still prevail'd and suppress the rest: Wherefore they think that if a man should begin the labour of a new search and examination, he must needs light upon somewhat formerly rejected, and after rejection, lost, and brought into oblivion: as if the multitude, or the wisest, to gratifie the multitude, were not more ready to give passage to that which is popular and superficial; than to that which is substantial and profound. For Time seemeth to be of the nature of a River, which carrieth down to us that which is light and blown up, and sinketh and drowneth that which is waighty and solid.

IV. Another error of divers nature from the former is, The over-early and Peremptory reduction of Knowledge into Arts and Methods; which once done, commonly Sciences receive small or no augmentation. For as young men, when they knit and shape perfectly, do seldom grow to a farther stature: so knowledge while it is disperst into Aphorisms, and Observations, may grow and shoot up; but once inclosed and comprehended in Methods, it may perchance be farther polisht and illustrate, and accommodated for use and practice, but it increaseth no more in bulk and substance.

V. Another error which doth succeed that which we last noted, is, That after distribution of particular Arts and Sciences into their several places, many men have presently abandoned the universal notion of things, or *Philosophia Prima*, which is a deadly enemy to all Progression. Prospects are made from Turrets and high places; and it is impossible to discover the more remote and deeper parts of any Science, if you stand but upon the flat and level of the same Science, and ascend not as into a watch-Town to a higher Science.

VI. Another error hath proceeded from too great a reverence, and a kind of Adoration of the mind and understanding of man, by means whereof men have withdrawn themselves, too much, from the contemplation of Nature, and the observations of experience; and have tumbled up and down in their own speculations and conceits; bur of these surpassing Opinators, and (if I may so speak) Intellectualists, (which are notwithstanding, taken for the most sublime and divine Philosophers) *Heraclitus* gave a
just

N. I. just censure, saying, *Men seek truth in their own little world, and not in the great common world*, for they disdain the Alphabet of nature, and *Primer-Book* of the Divine works; which if they did not, they might perchance by degrees and leasure, after the knowledge of simple letters, and spelling of Syllables, come at last, to read perfectly the Text and Volume of the Creatures. But they, contrariwise, by continual meditation and agitation of wit, urge, and as it were invoke their own spirits to divine, and give *Oracles* unto them, whereby they are deservedly and pleasingly deluded.

VII. Another Error, that hath some connexion with this latter, is, *That men do oftentimes imbue and infect their meditations and doctrines with the infusions of some Opinions, and conceptions of their own, which they have most admired; or some Sciences to which have most applied and consecrated themselves, giving all things a Dye and Tincture, though very deceivable, from these favorite Studies.* So hath *Plato* intermingled his Philosophy with Theology; *Aristotle* with Logick; The second School of *Plato*, *Proclus* and the rest, with the Mathematicks. These Arts had a kind of *Primo-geniture* with them, which they would still be kissing and making much of, as their first born sons. But the *Alchimists* have forged a new Philosophy out of the Fire and Furnace; and *Gilbert* our Country-man, hath extracted another Philosophy out of a Load-stone. So *Cicero*, when reciting the several opinions of the nature of the soul, he found a Musitian that held the soul was but a harmony, saith pleasantly, *Hic ab arte sua non recessit*: But of these errors *Aristotle* saith aptly and wisely, *Qui respiciunt ad pauca de facili pronunciant*.

Tuse lib. 1.

De Gen.
& Cor.
lib. 1. &
alibi.

VIII. Another error is, *An impatience of Doubt, and an unadvised haste to Assertion without due and mature suspension of judgement*: For the two ways of contemplation are not unlike the two ways of action, commonly spoken of by the Ancients; of which the one was a plain and smooth way in the beginning, but in the end impassible; the other rough and troublesome in the entrance, but after a while fair and even; so is it in contemplations, if a man will begin in certainties, he shall end in doubts; but if he can be content to begin with doubts, and have patience a while, he shall end in certainties.

IX. The like error discovereth it self in the *manner of Tradition and Delivery of knowlege, which is, for the most part, imperious and magistral, not ingenious and faithfull; so contrived, as may rather command our assent, than stand to examination.* It is true that in compendious Treatises designed for Practice, that Form of Writing may be retained; but in a just and compleat handling of knowledge, both extremes are to be avoided, as well the vein of *Vellieus* the Epicurean, *who feared nothing so much as to seem to doubt of any thing*; as that of *Socrates* and the Academy, leaving all things in doubt and uncertainty: Rather men should affect candor and sincerity, propounding things with more or less asseveration, as they stand in their judgement proved, more or less.

C'c. de
Nat. Dier.
1. b.

X. Other errors there are *in the scope that men propound to themselves whereunto they bend their endeavours and studies*: For whereas the most devout Leaders and noted Professors of Learning, ought chiefly to propound to themselves to make some notable addition to the Science they

they profess; contrariwise, they convert their labours to aspire to certain second prizes, as to be a *profound interpreter*, or commentator; a sharp and strong champion or *Defender*; a Methodical compounder or *Abridger*: so the Revenues and Tributes of Sciences come to be improved, but not the Patrimony and Inheritance.

¶ XI. But the greatest error of all the rest is, *the mistaking or misplacing the last and farthest end of knowledge*: For many have entred into a desire of Learning and Knowledge, some upon an inbred and restless *Curiosity*; others to entertain their minds with variety and *delight*; others for *ornament and reputation*; others for *contradiction* and victory in dispute; others for *Lucre* and living; few to improve the gift of reason given them from God, to the benefit and use of men. As if there were sought in knowledge, a *couch*, whereupon to rest a restless and searching spirit, or a *Tarrazs* for a wandring and variable mind to walk up and down in at liberty unrestrained; or some high and eminent *Tower of State*, from which a proud and ambitious mind, may have a Prospect; or a *Fort* and commanding ground for strife and contention; or a *shop* for profit and sale; and not rather a *rich store-house and Armory* for the glory of the Creator of all things, and the relief of mans estate. For this is that which indeed would dignifie and exalt Learning; if contemplation and action were more nearly and straitly, than hitherto they have been conjoyn'd and united together: which combination, certainly would be like unto that conjunction of the two highest Planets, when *Saturn* which hath the Dominion over rest and contemplations, conspires with *Jupiter* the Lord of Civil society and Action. Howbeit I do not mean when I speak of Use and Action, Professory or Lucretive Learning, for I am not ignorant how much that diverts and interrupteth the *Progression and advancement of knowledge*; like indeed the *Golden apple*, thrown before *Atalanta*, which while she goes aside and stoopeth to take up, the race is hindred.

Declinat cursus, aurumq; volubile tollit.

Ovid.
Met. 10.

Neither is it my meaning, as was spoken of *Socrates*, to call Philosophy down from heaven, to converse upon the earth; that is to lay *Natural Philosophy* aside, and to celebrate only *Moral Philosophy* and *Policy*. But as Heaven and Earth do conspire and contribute, to the use and benefit of the life of Man; so indeed this should be the end of *both Philosophies*; that vain speculations, and what ever is empty and barren, being rejected; that which is solid and fruitful may be preserved and augmented; that so Knowledge may not be a Courtezan for Pleasure, or as a bond-woman for gain; but as a spouse for generation; fruit and honest solace.

§ Now me thinks I have described and opened, as by a kind of dissection, those *Peccant Humours*; or at least, the Principal of them, which have not only given impediment to the Proficiency of Learning, but have given also occasion to the traducement thereof. Wherein if I have come too near the quick, it must be remembered, *Fidelia vulnera amantis do*

Psal. 145.

losa oscula malignantis: however this surely I think I have gained, that I ought to be the better believed, concerning the *Commendations of Learning* in that which follows, because I have proceeded so freely concerning

censure, in that which went before. And yet I have no purpose to enter into a *Landative of Learning*, or to make a *Hymn to the Muses*; though I am of opinion, that it is long since their Rites were duely celebrated: but my intent is, without varnish or amplification, to take the just waight, and to ballance the *Dignity of Knowledge* in the scales with other things; and to search out the true values thereof, from *testimonies Divine and Humane*.

CHAP. VI.

The Dignity of Learning from Divine Arguments and Testimonies.

I. *From Gods wisdom. § Angels of Illumination. § The first Light and first Sabbath. § Mans imployment in the Garden. § Abels contemplative life. § The invention of Musick. § Confusion of Tongues.* II. *The excellent Learning of Moses. § Job. § Solomon. § Christ. § St. Paul. § The Ancient Doctors of the Church. § Learning exalts the Mind to the Celebration of Gods glory; and is a Preservative against Error and Unbelief.*

I. **F**irst therefore let us seek the Dignity of Knowledge, in the Arch-Type or first Platform, which is in the *Attributes*, and in the *Acts of God*, as far as they are revealed to man, and may be observed with sobriety. Wherein we may not seek it by the name of *Learning*; for all *Learning* is Knowledge acquired, and no knowledge in God is *acquired*, but *Original*: and therefore we must look for it by another name, that is *wisdom* or *sapience*, as the sacred Scriptures call it. It is so then; In the *works of the Creation*, we see a double emanation of Divine virtue from God; whereof the one is referr'd to *Power*, the other to *Wisdom*, that is chiefly exprest in making the *Mafs* and substance of the *Matter*; this in disposing the beauty of the *Form*. This being supposed, it is to be observed, that for any thing which appears in the History of the *Creation*, the confused *Mafs* and *Matter* of *Heaven* and *Earth* was made in a moment of *Time*; yet the *Order* and *Disposition* of that *Chaos* or *Mafs*, was the work of six days: such a note of difference it pleased God to put upon the works of *Power*, and the works of *Wisdom*; wherewith concurs, that in the *Creation* of the *Matter*; it is not recorded that God said *Let there be Heaven and Earth*, as it is said of the works following; but simply and actually, *God made Heaven and Earth*: so that the *Matter* seems to be as a *Manufacture*, but the *Form* carries the stile of a *Law* or *Decree*.

Gen. 1.

Dion.
Aren.

§ Let us proceed from *God* to *Angels* or *Spirits*, whose nature in order of Dignity is next Gods. We see, so far as credit is to be given to the *Celestial Hierarchy*, set forth under the name of *Dionysius Areopagita*, that in the order of *Angels*, the first place or degree is given to the *Seraphim*, that is, *Angels of Love*: the second to the *Cherubim*, that is, *Angels of Illumination*: the third, and so following, Places to *Thrones*, *Principalities* and the rest, which are *Angels of Power* and *Ministry*.

So

So as from this order and distribution, it appears, that *the Angels of Knowledge and Illumination, are placed before the Angels of Office and Domination.*

§ To descend from Spirits and Intellectual Forms, to Sensible and Material Forms; we read *that the first of Created forms was Light*; which hath a relation and correspondence in nature and Coporeal things, to knowledge in Spirits and Incorporeal things. So in the distribution of *Days*, we see the *day* wherein God did rest and contemplate his own works, was blest above all the *days* wherein the Fabrick of the *Universe* was Created and Disposed.

§ After the Creation was finish'd, we read that *Man was plac'd in the Garden to work therein*; which work so appointed to him, could be no other than the *work of Contemplation*, that is, the end hereof was not for necessity, but for delight and exercise without vexation or trouble: For there being then no reluctance of the Creature, no sweat of the brow; mans employment must of consequence have been matter of *delight and contemplation, not of Labour and Work.* Again, the first Acts that man perform'd in *Paradise*, comprehended the two summary parts of *knowledge*; those were the *view of Creatures, and the imposition of names.* For the *knowledge* which introduc'd the Fall, it was (as we have touch'd before) not the *Natural Knowledge concerning the Creatures*; but the *Moral Knowledge of Good and Evil*, where the supposition was, *that Gods Commandments or Prohibitions were not the Originals of Good and Evil, but that they had other beginnings*, which man aspir'd to know, to the end to make a total defection from God, and to depend wholly upon himself, and his Free-will.

§ To pass to the first event or occurrence after the Fall of Man, we see (as the Scriptures have infinite Mysteries, not violating at all the truth of the story or letter) *an image of the two States, the Contemplative and Active, figur'd in the Persons of Abel and Cain*, and in their Professions and Primitive trades of life; whereof the one was a Shepherd, who by reason of his leisure, rest in a place, and free view of Heaven, *is a lively image of a Contemplative life*; the other a Husbandman, that is, a man toil'd and tired with working; and his countenance fixt upon the earth: *where we may see the favour and Election of God went to the Shepherd, and not to the tiller of Ground.*

§ So in the Age before the Flood, the holy Records (with in those few Memorials which are there entred and registred, touching the occurrences of that age) have vouchsafed to mention and honour *Inventors of Musick and works in Metals.*

§ In the next Age after the Flood, the great judgement of God upon the ambition of Man was the *Confusion of Tongues*; where-
by the open trade and intercourse of Learning and Knowledge was chiefly embraced.

II. Let us descend to *Moses* the Law-giver, and Gods first Notary, he is adorn'd in Scripture with this commendation, *That he was seen in all the Learning of the Egyptians*; which Nation, we know, was one of the most ancient Schools of the world; for so *Plato* brings in the *Ægyptian Priest* saying unto *Solon*, *You Grecians are ever children,*

1^o Timæo you have no knowledge of Antiquity, nor Antiquity of Knowledge: Let us take a view of the Ceremonial Law of Moses, and we shall find (besides the prefiguration of Christ, the Badge or Difference of the people of God, from the profane Race of the world; the exercise and impression of obedience, and other sacred uses and fruits of the same Law) that some of the most learned Rabbins, have travelled profitably and profoundly in the same, intently to observe and extract, sometimes a Natural, sometimes a Moral sense of the Ceremonies and Ordinances: For example, where it is said of the Leprosie, *If the whiteness have over-spread the flesh, the Patient may pass abroad for clean; but if there be any whole flesh remaining, he is to be sentenced unclean, and to be separated at the discretion of the Priest.* From this Law one of them collects a Principle in Nature; That Putrifaction is more contagious before maturity than after. Another raiseth a Moral instruction; That men ore spread with vice, do not so much corrupt publick Manners, as those that are half evil and but in part only. So that from this and other like places in that Law, there is to be found, besides Theological sense, much asperision of Philosophy.

§ So likewise that excellent Book of Job, if it be revolved with diligence, it will be found full and pregnant with the secrets of Natural Philosophy; as for example, of Cosmography, and the roundness of the Earth in that place, *Qui extendit Aquilonem super vacuum, & appendit Terram super nihilum,* where the Pensileness of the Earth; the Pole of the North; and the Finiteness or convexity of Heaven, are manifestly touched. Again, of Astronomy and Constellations, in those words, *Spiritus ejus ornavit Cælos, & obstetricante manu ejus educus est coluber tortuosus:* And in another place, *Canst thou bind the sweet influences of Pleiades, or loose the bands of Orion;* where the fetled and immoveable configuration of the first Stars, ever standing at equal distance, is with great elegancy described. So in another Place, *Which maketh Arcturus, Orion and Pleiades and the secret chambers of the South:* Where he again points at the depression of Southern Pole, designing it by the name of the secrets of the South, because the Southern Stars are not seen upon our Hemisphere. Matter of Generation of living Creatures, *Hast thou not poured me out like milk, and condensed me like Curds?* Matter of Minerals, *Surely there is a Mine for Silver, and a place wherein Gold is fined; Iron is digged up out of compacted dust, and Brass extracted from stone dissolved in the furnace,* and so forward in the same Chapter.

§ So likewise in the person of Solomon the King, we see the endowments of wisdom, both in his Petition and Gods assent thereunto, preferred before all terrene and temporal felicity. By virtue of which Donative and Grant, Solomon being singularly furnisht and enabled, not only writ those excellent Parables or Aphorisms concerning Divine and Moral Philosophy; but also compiled a Natural History of all verdure or vegetables *From the Cedar upon the Mountain, to the Moss upon the Wall;* which is but the rudiment of a plant, between putrifaction and an Herb; and also of all things that breath or move. Nay the same Solomon the King, although he excell'd in treasure and the magnificence of Building, of Shipping, and Navigation, of Service and Attendance, of Fame and Renown, and the like train of Glory, he reaps

reaps and makes claim to himself of nothing; but only the Honour of the Inquisition, and Invention of Truth, for so he saith expressly, *The Glory of God is to conceal a thing, but the Glory of a King is to find it out.* As if according to that innocent and affectionate play of Children, the Divine Majesty took delight to hide his works, to the end to have them found out; and as if Kings could not obtain a greater Honour, than to be Gods play-fellows in that game; especially considering the great command they have of wits and means, whereby the investigation of all things may be perfected.

§ Neither did the dispensation of God vary in the times after our Saviour came into the world; *For our Saviour himself did first shew his power to subdue Ignorance, by his conference with the Doctors of the Law, and the Priests in the Temple,* before he shewed his power to subdue Nature, by his great and so many Miracles. *And the coming of the Holy Ghost was chiefly figur'd and exprest in the similitude and gift of Tongues,* which are the *vehicula scientiæ.*

§ So in the election of those instruments which it pleased God to use in the Plantation of the Faith, at the first he employed persons altogether Unlearned, otherwise than by inspiration from the holy Spirit; whereby more evidently he might declare his immediate and divine working, and might abase all humane Wisdom and Knowledge: yet nevertheless that counsel of his in this respect was no sooner perform'd, but in the next vicissitude and succession of time he sent his divine Truth into the world, waited on with other Learning, as with servants and hand-maids; therefore we see *St. Pauls pen,* (who was only learned amongst the Apostles) was chiefly employed by God, in the Scriptures of the new Testament.

§ So again we know, that many of the Ancient Bishops and Doctors of the Church were excellently read and studied in all the Learning of the Heathen, in so much that the Edict of the Emperour Julian, whereby it was interdicted unto Christians to be admitted into Schools, or exercises of Learning, was esteemed and accounted a more pernicious Engine and Machination against the Christian Faith, than were all the sanguinary prosecutions of his Predecessors. Neither could the emulation and jealousy of Gregory the First, (otherwise an excellent man) who designed to extinguish and obliterate Heathen Authors and Antiquity, ever obtain the opinion of Piety and Devotion amongst holy men. But contrariwise it was the Christian Church, which amidst the inundations of the Scythians from the North-west; and the Saracens from the East, did preserve in the sacred Lap and Bosom thereof the precious relicks of Heathen Learning, which otherwise had utterly perisht and been extinguisht. And of late in our age we may likewise see the Jesuits, who partly in themselves, and partly by emulation and provocation of Adversaries, have much quickned and strengthened the state of Learning; we see, I say, what notable services they have done, and what helps they have brought in, to the repairing and establishing of the Roman Sea.

§ Wherefore to conclude this Part, there are two principal Duties and Services besides ornament and illustration, which humane Learning doth perform to Faith and Religion: *The one, because they are effectual incitements to the exaltation and celebration of the Glory of God: for*

Pfal. XIX. as the Psalms, and other Scriptures, do often invite us to the contemplation, and publication of the magnificent and wonderful works of God; so if we should rest only in the outward form, as they first offer themselves unto our senses; we should do the like the injury to the Majesty of God, as if we should judge of the store and wealth of some excellent Jeweller, by that only, which is set out towards the street in his shop. *The other, because they minister a singular help and preservative against unbelief, and errors: You err, not knowing the Scriptures nor the Power of God.* Where he lays before us, two books or volumes to study, if we will be secur'd from errors: First the *volume of Scriptures*, which reveal the will of God; then the *volume of Creatures*, which express his power; whereof the latter is as a key to the former, not only opening our understanding to conceive the true sense of Scriptures, by the general rules of Reason and Laws of speech; but besides, chiefly opening our belief, in drawing us unto a due meditation of the omnipotency of God; the characters whereof are chiefly signed and engraven upon his works. Thus much for *Divine Testimonies and Evidences*, concerning the true Dignity and value of Learning.

CHAP. VII.

The Dignity of Learning from humane Arguments and Testimonies.

I. Natural, *Inventors of New Arts for the Commodities of Mans life, consecrated as Gods.* II. Political, *Civil Estates and affairs advanced by Learning.* § *The best and happiest times under Learned Princes and others.* § *Exemplified in the immediate succeeding Emperours, from the death of Domitian.* III. Military, *The concurrence of Arms and Learning.* § *Exemplified in Alexander the Great.* § *Julius Cæsar the Dictator.* § *Xenophon the Philosopher.*

AS for *Humane Testimonies and Arguments*, it is so large a field, as in a discourse of this compendious nature and brevity, it is fit rather to use choice, than to imbrace the variety of them.

I. First, therefore in the degrees of Honour amongst the Heathens, it was the highest, to attain to a Veneration and Adoration as a God; this indeed to the Christians is as the forbidden fruit; but we speak now separately of *Humane Testimony*. Therefore, (as we were saying) with the Heathens, that which the Grecians call *Apotheosis*; and the Latines *Relatio inter Divos*; was the supreme Honour which man could attribute unto man: specially, when it was given, not by a formal Decree or Act of Estate, (as it was used amongst the Roman Emperours,) but freely by the assent of Men and inward belief. Of which high Honour there was a certain degree and middle term: For there were reckoned above *Humane Honours*, *Honours Heroical*; and *Divine*; in the Distribution whereof, Antiquity observed this order. Founders of States; Lawgivers; Extirpers of Tyrants;

Tyrants; Fathers of their Country, and other eminent Persons in Civil Merit, were honour'd with the title of *Worthies* only, or *Demi-Gods*; such as were *Theseus*, *Minos*, *Romulus*, and the like: on the other side such as were *Inventors and Authors of new Arts*; and such as endowed mans life with new *Commodities*, and *accessions*, were ever consecrated among the *Greater and Entire Gods*; which hapned to *Ceres*, *Bacchus*, *Mercury*, *Apollo*, and others, which indeed was done justly and upon sound judgment: For the *merits of the former*, are commonly confined within the circle of an Age, or a Nation, and are not unlike seasonable and favouring showers, which though they be profitable and desirable, yet serve but for that season only wherein they fall, and for a Latitude of ground which they water: *but the benefices of the latter*, like the influences of the Sun, and the heavenly bodies, are for time, permanent, for place, universal: those again are commonly mixt with strife and perturbation; but these have the true character of Divine presence, and come in *Aura leni* without noise or agitation.

II. Neither certainly is the *Merit of Learning in Civil affairs*, and in repressing the inconveniences which grow from man to man, much inferior to the other, which relieve mans necessities, which arise from Nature. And this kind of merit was lively set forth in that feigned relation of *Orpheus his Theatre*, where all beasts and birds assembled, which forgetting their proper natural appetites of Prey, of Game, of Quarrel, stood all sociably and lovingly together listening unto the *Airs and accords of the harp*; the sound whereof no sooner ceased, or was drown'd by some louder noise, but every beast returned to his own nature. In which Fable is elegantly described, the nature and condition of men, who are tossed and disordered with sundry savage and unreclaim'd desires, of Profit, of Lust, of Revenge; which yet as long as they give ear to precepts, to the persuasion of Religion, Laws, and Magistrates, eloquently and sweetly coucht in Books, to Sermons and Harangues; so long is society and peace maintain'd, but if these instruments be silent, or that seditions and tumults make them not audible, all things dissolve and fall back into Anarchy and Confusion.

§ But this appeareth more manifestly, when *Kings or Persons of Authority under them, or Governours in States*, are endowed with Learning: For although he might be thought partial to his own profession that said, *Then should People or States be happy when either Kings were Philosophers or Philosophers Kings*; yet so much is verified by experience, that under wise and Learned Princes and Governours of State, there hath been ever the best and happiest times. For howsoever Kings may have their errors and imperfections; that is, be liable to Passions and depraved customs, like other men, yet if they be illuminated by Learning, they have certain anticipate notions of Religion, Policy, and Morality, which preserve and refrain them from all ruinous and peremptory errors and excesses, whispering evermore in their ears, when Councillours, and Servants stand mute and silent. So likewise *Senators and Councillours which be Learned*, do proceed upon more safe and substantial principles than *Councillours which are only men of experience*: Those seeing dangers a farre off, and repulsing them betimes; whereas these are wise only near at hand, seeing nothing, but what is imminent and ready to fall upon them, and then trust to the agility of their wit, in the point of dangers, to ward and avoid them.

Philost. in Orph.

Plato. de Rep. 5.

§ Which

§ Which felicity of times under *Learned Princes* (to keep still the law of brevity by using the most selected and eminent examples) doth best appear, in the Age which passed from the death of *Domitianus* the Emperour, untill the reign of *Commodus*, comprehending a succession of six Princes, all Learned, or singular favourers and advancers of Learning, and of all ages (if we regard temporal happiness) the most flourishing that ever Rome saw, which was then the Model and Epitome of the world: A matter revealed and prefigur'd unto *Domitian* in a dream, the night before he was slain, for he seem'd to see grown behind upon his shoulders a neck and a head of gold; which Divination came indeed accordingly to pass, in those golden times which succeeded; of which we will make some particular, but brief commemoration. *Nerva* was a Learned Prince, an inward acquaintance, and even a Disciple to *Apollonius* the Pythagorean; who also almost expired in a verse of Homers,

Suet. in
Dom. pag.
23.

Nerva
Dion. l. 68.
Plin. Pan.

Telis Phæbe tuis, lachrimas ulciscere nostras.

Trajan was for his Person not Learned, but an admirer of Learning, and a munificent benefactor to the Learned, a Founder of Libraries, and in whose Court (though a warlike Prince) as is recorded, Professours and Preceptors were of most credit and estimation. *Adrian* was the most curious man that lived, and the insatiable inquirer of all variety and secrets. *Antonius* had the patient and subtile wit of a School-man, in so much as he was called *Cymini-Selector*, a Carver, or a divider of *Cummin-seed*: And of the *Divi fratres*, *Lucius Commodus* was delighted with a softer kind of Learning; and *Marcus* was surnam'd the *Philosopher*. These Princes as they excel'd the rest in Learning, so they excel'd them likewise in virtue and goodness. *Nerva* was a most mild Emperour, and who (if he had done nothing else) gave *Trajan* to the World. *Trajan*, of all that reigned, for the Arts, both of Peace and War, was most famous and renowned: the same Prince enlarged the bounds of the Empire; the same, temperately confin'd the Limits and Power thereof; he was also a great Builder in so much as *Constantine* the Great, in emulation was wont to call him, *Parietaria*, *Wall-Flower*, because his name was carved upon so many walls. *Adrian* was Times rival for the victory of perpetuity, for by his care and munificence in every kind, he repaired the decays and ruines of Time. *Antoninus*, as by name, so nature, a man exceeding *Pious*; for his nature and inbred goodness, was beloved and most acceptable to men of all sorts and degrees; whose reign, though it was long, yet was it peaceful and happy. *Lucius Commodus* (exceeded indeed by his brother) excel'd many of the Emperours for goodness. *Marcus* formed by nature to be the pattern and Platform of virtue, against whom that *Iester* in the banquet of the Gods had nothing to object, or carpeat, save his patience towards the humours of his wife. So in this continued sequence of six Princes, a man may see the happy fruits of Learning in Sovereignty, Painted forth in the greatest Table of the world.

Dion. in
Adriano.

Dion. in
Anton. P.

Plin. Pan.
Aur. vict.
c. 13.

xpphil. ex
Dion.
Trajan.

Capitol.
In Ant. P.

§
In Vero.
In M. Ant.

Juliani
Cæsares!

III. Neither hath Learning an influence or operation upon Civil merit and the Arts of peace only, but likewise it hath no less Power & Efficacy in Martial and Military virtue, as may notably be represented in the examples of *Alexander* the Great; and *Iulius Cæsar* the Dictator, mention'd, by the

Way

way before, but now in fit place to be resumed; of whose *Military virtues and Acts in war*, there needs no note or recital, having been the wonders of the world in that kind; but, of *their affection and propension towards Learning, and peculiar perfection therein*, it will not be impertinent to say something.

§ *Alexander* was bred and taught under *Aristotle*, (certainly a great Philosopher) who dedicated divers of his Books of *Philosophy* unto him: he was attended with *Calisthenes*, and divers other Learned persons that followed him in Camp, and were his perpetual associates, in all his Travels and Conquests. *What Price and Estimation he had Learning in*, doth notably appear in many particulars; as in the envy he expressed towards *Achille's* great fortune, in this, *That he had so good a Trumpet of his Actions and prowess as Homer's verses*. In the judgment he gave touching the precious Cabinet of *Darius*, which was found amongst the rest of the spoils; whereof, when question was mov'd, what thing was worthy to be put into it, and one said one thing, another, another, he gave sentence for *Homer's works*. His reprehensory letter to *Aristotle*, after he had set forth his *Book of Nature*, wherein he expostulates with him, for publishing the secrets or mysteries of *Philosophy*, and gave him to understand, *That himself esteemed it more to excel others in Learning and Knowledge, than in Power and Empire*. There are many other particulars to this purpose. *But how excellently his mind was endowed with Learning*, doth appear, or rather shine in all his *Speeches and answers*, full of of knowledge and wisdom; whereof though the Remains be small, yet you shall find deeply impressed in them, the foot-steps of all sciences in *Moral knowledge*; Let the speech of *Alexander* be observed touching *Diogenes*, and see (if ye please) if it tend not to to the true estate of one of the greatest questions in *moral Philosophy*? *Whether the enjoying of outward things, or the contemning of them, be the greater happiness*. For when he saw *Diogenes* contented with so little, turning to those that stood about him, that mock'd at the *Cynicks* condition, he said, *If I were not Alexander, I could wish to be Diogenes*. But *Seneca*, in this comparison, prefers *Diogenes*, when he saith, *Plus erat quod Diogenes nollet accipere, quam quod Alexander posset dare*, *There were more things which Diogenes would have refused, than those were which Alexander could have given*. In *Natural knowledge*, observe that speech that was usual with him, *That he felt his mortality chiefly in two things, Sleep, and Lust*: which speech, in truth, is extracted out of the depth of *Natural Philosophy*, tasting rather of the conception of an *Aristotle*, or a *Democritus*, than an *Alexander*; seeing as well the indigence, as redundance of nature, design'd by these two Acts; are, as it were, the inward witnesses and the earnest of Death. In *Poesy*, let that speech be observed, when upon the bleeding of his wounds, he called unto him one of his Flatterers, that was wont to ascribe unto him divine honour; *look (saith he) this is the blood of a man, not such liquor as Homer speaks of, which ran from Venus hand, when it was pierced by Diomedes*: with this speech checking both the Poets, and his flatterers, and himself. In *Logick* observe that reprehension of *Dialectick Fallacies*, in repelling and retorting Arguments, in that saying of his wherein he takes up *Cassander*, confuting the informers against his father *Antipater*. For when *Alexander* hapned to say, *Do you think these*

Plut. in Alexand.

Plut. ut supra.

Ut supra;

Ut supra;

De Ben. 5.

Plut. in Alexand.

Plut. in A-
lexand. men would come so far to complain, except they had just cause? Cassander answered, *Yea, that was it that made them thus bold, because they hoped the length of the way would dead the discovery of the aspersion; See (saith the King) the subtilty of Aristotle wresting the matter both waies, Pro and Contra.* Yet the same Art which he reprehended in another, he knew well how to use himself, when occasion required, to serve his own turn. For so it fell out that *Calisthenes*, (to whom he bare a secret grudge, because he was against the new ceremony of his adoration) being mov'd, at a banquet, by some of those that sate at table with him, that for entertainment sake (being he was an eloquent man) he would take upon him some Theme, at his own choice, to discourse upon, which *Calisthenes* did, and chusing the Praises of the Macedonian Nation, performed the same with the great applause of all that heard him: whereupon *Alexander*, nothing pleased, said, *That upon a good subject it was ease for any man to be eloquent, but turn, said he, your stile, and let us hear what you can say against us.* *Calisthenes* undertook the charge, and performed it, with that sting and life, that *Alexander* was fain to interrupt him, saying; *An ill mind also, as well as a good cause might infuse eloquence.* For *Rhetorick*, whereto Tropes and Ornaments appertain; see an elegant use of Metaphor, wherewith he taxed *Antipater*, who was an Imperious and Tyrannous Governour. For when one of *Antipaters* friends commended him to *Alexander* for his moderation. and that he did not degenerate, as other Lieutenants did, into the Persian Pride, in using Purple, but kept the ancient Macedon habit, *But Antipater (saith Alexander) is all Purple within.* So likewise that other Metaphor is excellent; when *Parmenio* came unto him in the plain of *Arbella*; and shewed him the innumerable multitude of enemies which viewed in the night, represented, by the infinite number of lights, a new Firmament of starres; and thereupon advised him to assail them by night, *I will not, said Alexander, steal a victory.* For matter of Policy, weigh that grave and wise distinction, which all ages have embraced, whereby he differenced his two chief friends, *Ephestion* and *Craterus*, when he said, *That the one loved Alexander, and the other loved the King,* Describing a Difference of great import, amongst even the most faithful servants of Kings, *that some in sincere affection love their Persons, others in duty love their Crown.* Observe how excellently he could tax an error, ordinary with Counsellors of Princes, who many times give counsel, according to the model of their own mind and fortune, and not of their Masters. For when *Darius* had made great offers to *Alexander*: *I, said Parmenio, would accept these conditions, If I were as Alexander: said Alexander, surely so would I, were I as parmenio.* Lastly, weigh that quick and acute reply, which he made to his friends asking him, *what he would reserve for himself, giving away so many and great gifts?* *Hope, said he; as one who well knew that when all accounts are cast up aright, Hope is the true portion and inheritance of all that resolve upon great enterprizes.* This was *Julius Caesar's* portion when he went into *Gaul*, all his estate being exhausted by profuse Largeesses. This was likewise the portion of that noble Prince, howsoever transported with Ambition, *Henry Duke of Guyse*, of whom it was usually said, *That he was the greatest usurer in all France, because that all his wealth was in names, and that he had turned his*

Plutarch.
ut supra.

Plutarch.
Dict. Not.

Plut. in
Alexan.

Ut supra.

Plut. in
Alex.

Ut supra.

S. Erasm.
Bacm.
A pol.

whole

whole estate into obligations. But the admiration of *this Prince*, whilst I represent him to my self, not as *Alexander the Great*; but as *Aristotles Scholar*, hath perchance carried me too far.

§ As for *Julius Caesar*, the excellency of his Learning; needs not to be argued, either from his education, or his company, or his answers; For this, in a high degree, doth declare it self in his own writings, and works, whereof some are extant, some unfortunately perisht. For first, there is left unto us *that excellent History of his own wars*, which he entitled only a *Commentary*; wherein all succeeding times have admired the solid weight of matter; and lively images of Actions and Persons express in the greatest propriety of words, & perspicuity of Narration, that ever was. Which endowments, that they were not infused by nature, but acquired by *Precepts and instructions of Learning*; is well witnessed by that work of his entitled *De Analogia*, which was nothing else but a *Grammatical Philosophy*, wherein he did labour, to make this *vox ad Placitum*, to become *vox ad Licitum*, and to reduce custome of speech, to congruity of speech; that words, which are the the images of things, might accord with the things themselves, and not stand to the Arbitrement of the vulgar. So likewise we have by his edict, *a reformed computation of the year*, correspondent to the course of the Sun; which evidently shews, that he accounted it his equal glory, to find out the laws of the stars in heaven; as to give laws to men on earth. So in that Book of his entitled *Anti-Cato*; it doth easily appear, that he did aspire, as well to victory of wit, as victory of war; undertaking therein a Conflict against the greatest Champion with the Pen, that then lived, *Cicero the Oratour*. Again in his Book of *Apothe-gms*, which he collected, we see he esteemed it more honour, to to make himself but a pair of Tables, or Codicils, wherein to register the wise and grave sayings of others; than if his own words were hal-lowed as Oracles, as many vain Princes, by custom of Flattery, delight to do. But if I should report divers of his *speeches*, as I did in *Alex-ander*, they are truly such, as Solomon notes, *Verba sapientum sunt tan-quam aculei, & tanquam clavi in altum defixi*: wherefore I will here only propound three, not so admirable for elegancy, as for vigour and effi-cacy: As first, it is reason he be thought *a master of words*, that could with one word appease a mutiny in his army: the occasion was this; The *Romans*, when their Generals did speak in their Army; did use the word, *Milites*, when the Magistrates spake to the people, they did use the word, *Quirites*: *Caesars* souldiers were in a tumult, and se-ditionously prayed to be cased, not that they so meant, but by exostu-lation thereof, to draw *Caesar* to other conditions; He, nothing daunted and resolute, after some silence began thus, *Ego, Quirites*, which word did admit them already cashiered; wherewith the souldiers were so surprized, and so amazed; as they would not suffer him to go on in his speech; and relinquishing their demands of *Dismission*, made it now their earnest suit, that the name of *Milites*, might be again restored them. The second speech was thus; *Caesar* did extreamply affect the name of *King*; therefore some were set on, as he passed by, in popular accla-mation to salute him *King*: he finding the cry weak and poor, put off the matter with a jest, as if they had mist his sir-name, *Non Rex sum*, (saith he) *sed Caesar*; indeed such a speech, as if it be exactly search't,

Cic. de clā
Orat.Cic. de O-
rat. l. 3.
Suet. in
Iul.Suet. in
parag. 56.

Parag. 56.

Suet. in
parag. 40.Plut in
Cæsa

Eccles. 12.

Suet. in
Iul. parag.
70.Suet. pa-
rag. 70.

the life and fulness of it can scarce be exprest. For first it pretended a refusal of the name, but yet not serious. Again, it did carry with it an infinite confidence, and magnanimity; as if the Appellation *Cæsar* had been a more eminent Title, than the name of King; which hath come to pass, and remaineth so till this day. But, that which most made for him, this speech by an excellent contrivance, advanced his own purpose; for it did closely insinuate, that the Senate and People of *Rome* did strive with him about a vain shadow, a name only, (for he had the power of a King already) and for such a name, whereof mean families were invested; for the Sir-name *Rex*, was the title of many families; as we also have the like in our Dialect. The last speech, which I will mention in this place, was this; When *Cæsar*, after the war was declared, did possess himself of the City of *Rome*, and had broke open the inner *Treasury*, to take the mony there stored up, for the service of the war, *Metellus*, for that time Tribune, withstood him; to whom *Cæsar*, *If thou dost persist* (saith he) *thou art dead*; presently taking himself up, he added, *Young man, it is harder for me to speak this, than to do it*; *Adolescens, durius est mihi hoc dicere quam facere*; A speech compounded of the greatest terror, and the greatest clemency, that could proceed out of the mouth of man. But, to pursue *Cæsar's* Abilities in this kind no farther, it is evident, that he knew well his own perfection in Learning, as appears, when some spake, what a strange resolution it was in *Lucius Scylla* to resign his *Dictature*; he scoffing at him, answered, *That Scylla could not skill of Letters, and therefore knew not how to Dictate.*

Plut. in
Cæsar.

Suet. in
Jul.
§. 77.

Xen. Hist.
de Exp.
Cyri.

Hist. de
Cy. Ex.
12.

§ Now it were time to leave this point touching the strict concurrence of *Military virtue and Learning*, (for what example in this kind, can come with any grace, after *Alexander* and *Cæsar*?) were it not that I am transported with the height and rareness of one other particular instance, as that which did so suddenly pass from scorn to wonder; and it is of *Xenophon the Philosopher*, who went from *Socrates* his School into *Asia* with *Cyrus* the younger, in his expedition against King *Artaxerxes*. This *Xenophon*, at that time was very young, and never had seen the wars before; neither had then, any command in the Army, but only followed the war as a voluntary, for the love and conversation of *Proxenus* his friend. He was by chance present when *Falinus* came in message from the great King, to the Grecians, after that *Cyrus* was slain in the field, and the Grecians, a handful of men, having lost their General, left to themselves in the midst of the Provinces of *Persia*, cut off from their Country by the interception of many miles, and of very great and deep Rivers. The Message did import that they should deliver up their Arms, and submit themselves to the Kings mercy: to which message before publick answer was made, divers of the Army conferr'd familiarly with *Falinus*, amongst whom *Xenophon* hapned to say thus, *Why*, (said he) *Falinus we have now but these two things left, our Arms and our Virtue, if we yield up our Arms, how shall we make use of our Virtue?* whereto *Falinus* smiling said, *If I be not deceived, Young Gentleman, you are an Athenian, and study Philosophy, and it is pretty that you say, but you are much abused, if you think your Virtue can withstand the Kings Power*; here was the scorn, the wonder followeth. This young Scholar or Philosopher, after all the Cap-

tains

tains and Commanders were murdered by treason, conducted ten thousand Foot, through the heart of all the Kings high Countries, from *Babylon to Grecia*, in despite of all the Kings forces; to the astonishment of the world, and the encouragement of the Grecians in time succeeding, to make invasion upon the *Persian Monarchy* and to subvert it. Which indeed soon after, *Jason the Thessalian* conceiv'd and design'd; *Agesilaus the Spartan* attempted and commenced; *Alexander the Macedonian* at last atchieved, all being stirred up, by this brave leading Act of that young Scholar.

CHAP. VIII.

The Merit of Learning from the influence it hath upon Moral Virtues. § *Learning a sovereign remedy for all the diseases of the Mind.* § *The Dominion thereof greater than any Temporal Power, being a Power over Reason and Belief.* § *Learning gives Fortunes, Honours, Delights excelling all others, as the soul the sense.* § *Durable Monuments of Fame.* § *A Prospect of the immortality of a future world.*

TO proceed now, from *Imperial and Military Virtue*, to *Moral*, and that which is the *Virtue of Private men*: First, that of the Poet is a most certain truth,

*Scilicet ingenuas didicisse fideliter Artes
Emollit mores nec sinit esse feros.*

Ovid. de
Pont.

For *Learning* doth reclaim mens minds from *Wildeness and Barbarism*; but indeed, the accent had need be put upon *Fideliter*; for a superficial confused knowledge doth rather work a contrary effect. I say, *Learning* takes away *levity, temerity, and insolency*, whilst it suggests all dangers and doubts, together with the thing it self; ballanceth the weight of reasons and arguments on both sides; turns back the first offers and placits of the mind as suspect, and teacheth it to take a tried and examin'd way: The same doth extirpate *vain and excessive admiration*, which is the root of all weak advisement. For we admire things, either because they are *New*, or because they are *Great*: As for *novelty*; no man that wades in *Learning*, and contemplation of things thoroughly, but hath this printed in his heart, *Nil novi sub sole*: neither can any man much marvel at the *play of Puppets*, that thrusts but his head behind the curtain; and adviseth well of the organs and wires that cause the motion. As for *Magnitude*, as *Alexander the Great*, after he was used to great Battles, and conquests in *Asia*; when at any time he received Letters out of *Greece*, of some fights and services there, which were undertaken commonly for some *Bridge*, or a *Fort*, or at most for the besiege of some *City*; was wont to say, *It seemed to him, that he was advertised of the Battles of Homers Frogs and Mice*: So certainly, if a man meditate upon the world and the *Fabrick* thereof;

Eccles. i.

Sen. Nat.
Q. lib. 1.
pref.

thereof; to him the Globe of the Earth, with men marching upon it, (the Divineness of souls excepted) will not seem much other, than a *Hillock of Ants* whereof some creep, and run up and down with their Corn, others with their Eggs, others empty; all about a little heap of Dust.

Enchir. C.
33. Arr.
l. 3. c. 24.

§ Again, Learning takes away, or at least, mitigates the fear of death, and adverse Fortune; which is one of the greatest impediments to Virtue or Manners. For if a mans mind be seasoned and imbued with the contemplation of Mortality, and the corruptible nature of things, he will, in his apprehension, concur with *Epicetus*, who going forth one day saw a woman weeping for her Pitcher of Earth; and going forth the next day saw another woman weeping for her son, said, *Heri vidi fragilem frangi, hodie vidi mortalem mori*: Therefore *Virgil* did excellently and profoundly couple the knowledge of the cause and the conquest of fears together, as concomitants :

Geor. 2

*Felix qui potuit rerum cognoscere causas;
Quiq; metus omnes & inexorabile fatum,
Subjecit pedibus, strepitumq; Acherontis avari.*

Plat. Alcib.
Porph. in
Stob. Sen.
Epist.
Plot. Mor.

It were too long to go over the particular Remedies, which Learning doth minister to all the diseases of the Mind; sometimes purging the ill Humours, sometimes opening the obstructions, sometimes helping digestion, sometimes exciting appetite, often healing the wounds and exulcerations thereof, and the like. Therefore I will conclude with that, which seems to be the sum of all, which is, *that Learning so disposeth and inclineth the mind, as that it is never wholly settled and fixt in the defects thereof, but ever awakes it self and breaths after a Growth and Perfection*: For the unlearn'd man knows not what it is to descend into himself, or to call himself to account, or what a sweet life it is sensibly to feel, that he is every day better. If he chance to have any good parts, he will be boasting these; and every where expose them to the full view; and it may be use them dexterously to his own advantage and reputation; but not much improve or encrease them. Again, what faults soever he hath, he will use art and industry to hide and colour them, but not to amend them; like an ill Mower that mowes on still and never whets his Sythe: Contrariwise, a learned man doth not only employ his mind and exercise his good parts, but continually reforms himself, and makes Progression in virtue: Nay, to say all in a word. Certain it is, that *Veritas* and *Bonitas* differ but as the Seal and the Print; for goodness is Truth's impression; and on the contrary the storms and tempests of Vice and Passions break from the Clouds of error and fashood.

II. From Morality, let us pass on to matter of power and commandment, and consider, whether there be any sovereignty or empire comparable to that wherewith Learning invests and crowns names. We see the Dignity of commanding, is according to the dignity of the commanded: Commandment over Beasts and Cattle, such as Heardmen and Shepherds have, is a thing contemptible; Commandment over children, such as School-masters and Tutors have, is a matter of small honour; commandment over slaves, is a disparagement, rather than a honour; nei-
ther

ther is the commandment of Tyrants much better, over a servile People, dismantled of their Spirits and generosity of mind; therefore it was ever held, that honours in free Monarchies and Common-wealths had a sweetness more than in Tyrannies; because a command over the willing is more honourable than over the forced and compelled: Wherefore *Virgil*, when he would out of the highest strain of his Art express the best of Humane honours, that he could attribute to *Cæsar*, he doth it in these words,

—victorq; volentes

—Per Populos dat jura, viamq; affectat Olympo.

Georg. 4.

But the Commandment of knowledge is far higher than the Commandment over the will, though free, and not enslaved and vassal'd: For it is a Dominion over Reason, Belief, and the Understanding, which is the highest part of man, and gives Law to the will it self: For without Question there is no power on earth, which advanceth and sets up a Throne, and, as it were, a Chair of estate, in the souls of men and their Cogitations, Assents, and Belief, but Knowledge and Learning: And therefore we see, the detestable and extreme pleasure that *Arch-Hereticks*, *false Prophets*, and *Impostors* are ravish'd, and transported withal, when once they find that they begin to have a Dominion, and Superiority over the faith and consciences of men; indeed so great, as he that hath once tasted it, it is seldom seen that any persecution or torture can make them relinquish this Sovereignty: But as this is that which the Divine Author of the Revelations calls, *The depth or profoundness of Satan*; so on the contrary, the just and lawful Sovereignty over mens minds, establish'd by the clear evidence, and sweet commendation of Truth, approacheth certainly nearest to the similitude of the Divine Rule.

Apoc 2.

§ As for Fortunes and Honours, the magnificence of Learning doth not so enrich and adorn whole Kingdoms and Common-wealths, as it doth not likewise amplify and advance the Fortunes and Estates of particular persons; For it is an ancient observation, that *Homer* hath given more men their living, than either *Scylla*, or *Cæsar*, or *Augustus* ever did, notwithstanding their great Largeesses, such infinite donatives, and distributions of much Land. No doubt, it is hard to say, whether Arms or Learning have advanced greater numbers: But if we speak of Sovereignty, we see, that if Arms have carried away the Kingdom, yet Learning hath born away the Priesthood, which ever hath been in some competition with Empire.

§ Again, If you contemplate the Pleasure and Delight of Knowledge and Learning, assuredly it far surpasses all other pleasure: For what? Shall, perchance, the pleasures of the Affections so far excel the pleasures of the senses, as a happy obtaining of a desire, doth a song or a dinner; and must not by the same degrees of consequence, the pleasure of the Intellect transcend those of the Affections? In all other pleasures there is a finite satiety, and after they grow a little stale, their flower and verdure vades and departs; whereby we are instructed, that they were not indeed pure and sincere pleasures, but shadows and deceits of Pleasures; and that it was the Novelty which pleas'd, and not the Quality: therefore voluptuous men often turn Fryars, and the declining

De Rer.
Nat. lib. 2.

age of ambitious Princes is commonly more sad and besieged with Melancholy; *But of Knowledge there is no satiety*; but vicissitude, perpetually and interchangeably, returning of fruition and appetite; so that the good of this delight must needs be simple, without Accident or Fallacy. Neither is that *Pleasure* of small efficacy and contentment in the mind of man, which the Poet *Lucretius* describeth elegantly, *Suave, mari magno turbantibus æquora ventis, &c.* *It is a view of delight* (saith he) *to stand or walk upon the shore, and to see a ship tost with tempest upon the sea: a pleasure to stand in the window of a Castle, and to see two Battails joyn upon a plain: but it is a pleasure incomparable, for the mind of man, by Learning to be settled and fortified in the Tower of Truth, and from thence to behold the errors and wandrings of other men below.*

§ Lastly, leaving the vulgar arguments, *That by Learning man excels man, in that wherein man excels beasts*; that by the help of Learning, man ascends in his understanding, even to the heavens, whither in body he can not come, and the like; let us conclude this discourse concerning the *dignity and Knowledge of Learning*, with that good, whereunto mans nature doth most aspire, *Immortality and continuance*. For to this tendeth Generation, raising of Houses and Families, Buildings, Foundations, Monuments, Fame, and in effect the sum and height of humane desires. *But we see how far the monuments of Wit and Learning, are more durable than the Monuments of materiate Memorials and Manufactures.* Have not the *verses of Homer* continued xxv Centuries of years and above, without the loss of a syllable, or letter? during which time, infinite number of Places, Temples, Castles, Cities, have been decayed or been demolisht. The *Pictures and Statues of Cyrus, Alexander, Cæsar*, no nor of the Kings and Princes of much later years, by no means possible are now recoverable; for the Originals, worn away with age, are perisht; and the Copies daily lose of the life and Primitive resemblance; *But the images of mens wits, remain unmaimed in books for ever, exempt from the injuries of time, because capable of perpetual renovation.* Neither can they properly be called Images, because, in their way, they generate still and cast their seeds in the minds of men; raising and procreating infinite Actions and Opinions in succeeding ages. So that if the invention of a ship, was thought so noble and wonderful, which transports Riches and Merchandice from Place to Place; and consociates the most remote regions in participation of their fruits and commodities; *how much more are letters to be magnified, which as ships, passing through the vast sea of time, to counite the remotest ages of Wits and Invention in mutual Trafique and Correspondency?*

§ Furthermore, we see some of the Philosophers which were most immersed in the senses and least divine, and which peremptorily denied the immortality of the soul, yet convicted by the power of truth came to this point, *That whatsoever Motions and Acts the spirit of man could perform without the Organ of the body, it was probable that those remained after death*; such as were the motions of the understanding, but not of the affections; *so immortal and incorruptible a thing did knowledge seem to them to be.* But we, illuminated with divine Revelation, disclaiming these rudiments and delusions of the senses, know that not only the mind, but the affections purified; not only the soul, but the body shall be advanced in its time to immortality. But it must be remembered,

remembered, both now and other times, as the nature of the point may require, that in the proofs, of the dignity of Knowledge and Learning, I did at the beginning separate Divine Testimonies, from Humane; which method I have constantly pursued, and so handled them both apart. Although all this be true, nevertheless I do not take upon me, neither can I hope to obtain by any Perorations, or pleadings of this case touching Learning, to reverse the judgement either of *Æsops Cock*, that preferred the Barley-corn before the Gemm; or of *Midas*, that being chosen Judge between Apollo, President of the Muses, and Pan President of Sheep, judg'd for plenty; or of *Paris*, that judged for Pleasure and love, against wisdom and power; or of *Agrippina's* choice, *Occidat matrem, modo imperet!* preferring Empire with any condition never so detestable; or of *Ulysses*, *qui vetulam prætulit immortalitati*; being indeed figures of those that prefer custom before all excellency; and a number of the like popular judgements: for these things must continue as they have been, but so will that also continue, whereupon Learning hath ever relied as on a firm foundation which can never be shaken: *Justificata est sapientia à Filiis suis.*

Ovid. Met. XI.

Eurip. in Troad.

Tac. An. XIV.

Mat. XI.

F

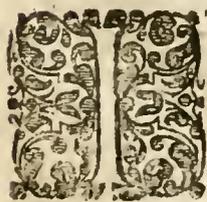
THE

THE
 Second Book
 OF
 FRANCIS L. VERULAM
 VICOUNT S. ALBAN,
 OF THE
 Dignity and Advancement
 OF
 LEARNING.

To the KING.

THE PROEM

The Advancement of Learning commended unto the care of Kings. I. The Acts thereof in general, three, Reward, Direction, Assistance. II. In special, about three objects, Places, Books, Persons. & In places four Circumstances, Buildings, Revenues, Priviledges, Laws of Discipline. & In Books two, Libraries, good Editions. & In Persons two, Readers of Sciences Extant; Inquirers into Parts non-extant. III. Defects in these Acts of Advancement, six; Want of Foundations for Arts at large. & Meanness of Salary unto Professors. & Want of allowance for Experiments. & Preposterous institutions, and unadvised practices in Academical Studies. & Want of Intelligence between the Universities of Europe. & Want of Inquiries into the Deficients of Arts. & The Authors Design. & Ingenious Defence.



IT might seem to have more convenience, although it come often otherwise to pass, (Excellent King,) that those that are fruitful in their Generation, and have, by this way, a fore-sight of their own immortality in their Descendants, should above all men living, be careful of the the estate of future times, unto which they cannot but know that they must at last transmit their dearest Pledges: Q. Elizabeth was a sojourner in the world, in respect of her unmarried life, rather than an inhabitant: she hath indeed adorned her own

time, and many ways enrich it ; but in truth, to Your Majesty, whom God hath blest with so much Royal Issue worthy to perpetuate you for ever ; whose youthful and fruitful Bed, doth yet promise more children ; it is very proper, not only to irradiate, as you do, your own times, but also to extend your Cares to those Acts which succeeding Ages may cherish, and Eternity it self behold : Amongst which, if my affection to Learning do not transport me, there is none more worthy, or more noble, *than the endowment of the world with sound and fruitful Advancements of Learning* ; For why should we erect unto our selves some few Authors, to stand like *Hercules Columns*, beyond which there should be no discovery of knowledge ; seeing we have *your Majesty*, as a bright and benign Star, to conduct and prosper us in this Navigation.

I. To return therefore unto our purpose, let us weigh and consider with our selves, what hitherto hath been performed, what pretermitted by Princes and others, for the *Propagation of Learning* : And this we will pursue closely and distinctly, in an Active and Masculine Expression, no where digressing, nothing dilating. Let this ground therefore be laid, which every one may grant, that the greatest and most difficult works are overcome, either by the *Amplitude of Reward*, or by the *wisdom and soundness of Direction*, or by *conjunction of Labours* ; whereof the first, *encourageth our endeavours* ; the second, *takes away Error and Confusion* ; the third, *supplies the frailty of Man*. But the Principal amongst these three, is the *wisdom and soundness of Direction*, that is, a Delineation and Demonstration of a right and easie way to accomplish any enterprize : *Claudius enim*, as the Eccles. 10. saying is, *in via antevertit Cursorem extrà viam* ; and Solomon aptly to the purpose, *If the Iron be blunt, and he do not whet the edge, then must he put too more strength ; but wisdom is profitable to Direction* : By which words he insinuateth, that a wise election of the *Mean*, doth more efficaciously conduce to the perfecting of any enterprize, than any enforcement or accumulation of endeavours. This I am pressed to speak, for that (not derogating from the Honour of those who have any way deserved well of Learning) I see and observe, that many of their Works and Acts, are rather matter of *Magnificence* and *Memory* of their *own names*, than of *Progression* and *Proficiency of Learning* ; and have rather encreased the number of *Learned men*, than much promoted the *Augmentation of Learning*.

II. The Works or Acts pertaining to the *Propagation of Learning*, are conversant about three objects ; about the *Places of Learning* ; about the *Books* ; and about the *Persons of Learned men*. For as *water*, whether falling from the Dew of Heaven, or rising from the springs of the earth, is easily scattered and lost in the ground, except it be collected into some *receptacles*, where it may by union and Congregation into one body comfort and sustain it self ; for that purpose the industry of man hath invented *Conduits*, *Cisterns* and *Pools*, and beautified them with divers accomplishments, as well of *Magnificence* and *State*, as of *Use* and *Necessity* : so this most excellent *liquor of Knowledge*, whether it distil from a divine inspiration ; or spring from the *senses*, would

would soon perish and vanish, if it were not conserved in *Books, Traditions, Conferences,* and in *Places* purposely designed to that end; as *Universities, Colledges, Schools,* where it may have fixt *stations* and *Power* and *Ability* of uniting and improving it self.

§ And first, the works which concern the *Seats of the Muses,* are four, *Foundations of Houses; Endowments with Revenues; Grant of Priviledges; Institutions, and statutes for Government;* all which chiefly conduce to privateness and quietness of life, and a discharge from cares and troubles, much like the *stations Virgil* describeth for the Hiving of Bees.

*Principio Sedes Apibus statioque petenda,
Quo neque sit ventis aditus, &c.*

Geor. 4.

§ But the works touching *Books* are chiefly two: First *Libraries,* wherein, as in famous shrines, the Reliques of the Ancient Saints full of virtue, are reposed. Secondly, *new Editions of Authors, with corrected impressions; more faithful Translations, more profitable Glosses, more diligent Annotations;* with the like train furnish't and adorned.

§ Furthermore, the works pertaining to the *Persons of Learned men,* besides the *Advancing and Countenancing* of them in general, are likewise two; the *Remuneratōon and Designation* of Readers, in *Arts and Sciences* already extant and known; and the *Remuneration and Designation* of writers concerning those parts of *Knowledge,* which hitherto have not been sufficiently till'd and labour'd. These briefly are the works and Acts, wherein the Merit of many renowned Princes and other illustrious Persons, hath been famed, towards the state of Learning. As for particular Commemoration, of any that hath well deserved of Learning, when I think thereof, that of *Cicero* comes into my mind, which was a motive unto him after his return from banishment to give general thanks, *Difficile non aliquem; ingratum, quenquam præterire:* Let us rather according to the advice of Scripture, *Look unto the part of the race which is before us, than look back unto that which is already attained.*

Cic. Orat.
post redit.
Epist. ad
Phil. 3.

III. First therefore, amongst so many *Colledges* of Europe, excellently founded, I find strange, that they are all destined to certain *Professions* and none Dedicated to *Free and Universal studies* of *Arts and Sciences:* For he that judgeth, that all Learning should be referred to use and Action, judgeth well; but yet it is easie this way to fall into the error taxt in the Ancient Fable, in which, *the other parts of the Body entred an Action against the stomach, because it neither perform'd the office of Motion, as the Limbs do; nor of sense, as the head doth;* but yet all this while it is the stomach, that concocteth, converteth, and distributeth nourishment into the rest of the body: So if any man think *Philosophy and universal contemplations* a vain and idle study, he doth not consider that all *Professions and Arts* from thence derive their sap and strength. And surely I am perswaded that this hath been a great cause why the happy progression of Learning hitherto hath been retarded; because these *Fundamentals* have been studied but only in passage, and deeper draughts have not been taken thereof: For if you will have a Tree bear more fruit than it hath used to do, it is not any thing you can do to the Boughs,

Liv. lib. 2.
v. c. 26.
Ætop.
Fab.

but it is the stirring of the earth about the root, and the application of new mould, or you do nothing. Neither is it to be passed over in silence, that this dedicating of Colledges and Societies, only to the use of Professory Learning, hath, not only, been an enemy to the growth of Sciences; but hath redounded likewise to the prejudice of States and Governments: For hence it commonly falls out that Princes, when they would make choice of Ministers fit for the Affairs of State, find about them such a marvellous solitude of able men; because there is no education Collegiate design'd to this end, where such as are fram'd and fitted by nature thereto, might give themselves chiefly to *Histories*, *Modern Languages*, *Books and discourses of Policy*, that so they might come more able and better furnish't to service of State.

§ And because *Founders of Colledges do Plant, and Founders of Lecturers do water*, it followeth now in order to speak of the Defects which are in publick Lectures; *the smalness of stipends* (especially with us) *assigned to Readers of Arts or of Professions*: For it doth much import to the *Progression and Proficiency of Sciences*, that Readers in every kind be chosen out of the ablest and most sufficient men; as those that are ordained, not for transitory use, but for to maintain and propagate the seeds of Sciences for future Ages; This cannot be, except the Rewards and Conditions be appointed such, as may sufficiently content the most eminent man in that Art, so as he can be willing to spend his whole Age in that function and never desire to practice. Wherefore that *Sciences may flourish*, *Dauids Military Law* should be observed, *That those that stayed with the Carriage should have equal parts with those that were in the Action*; else will the Carriages be ill attended. So Readers in Sciences are, as it were, Protectors and Guardians of the Provision of Learning, whence the Action and services of Sciences may be furnish't. Wherefore it is reason that the *Salaries of Speculative men, should be equal to the gains of Active men*; otherwise if allowances to Fathers of Sciences be not in a competent degree ample and condign, it will come to pass,

1 Sam. 30.

Virg. Geor. 3.

Ut Patrem invalidi referent jejunia Nati.

§ Now I will note another Defect, wherein some Alchymist should be called unto for help; for this Sect of Men advise Students to sell their Books and to build furnaces; to quit *Minerva* and the *Muses*, as *Barrren Virgins*, and to apply themselves to *Vulcan*. Yet certainly it must be confest, that unto the depth of *Contemplation*, and the fruit of *Operative studies* in many Sciences, especially *Natural Philosophy*, and *Physick*; *Books are not the only subsidiary Instruments*, wherein the Munificence of men, hath not been altogether wanting; for we see *Spheres, Globes, Astrolabes, Maps*, and the like, have been provided, and with industry invented, as Help to *Astronomy* and *Cosmography*; as well as *Books*. We see likewise some places dedicated to the study of *Physick*, to have *Gardens for the inspection and observation of simples* of all sorts; and to be authorized the use of *Dead Bodies for Anatomy-Lectures*. But those do respect but a few things; in the generality set it down for Truth, *That there can hardly be made any main Proficiency in the disclosing of the secrets of Nature, unless there be liberal Allowance for Experiments; whether*

ther of Vulcan or of Dædalus; I mean of Furnace, or of Engine, or any other kind: And therefore as Secretaries and Spials of State, are allowed to bring in Bills for their diligence in the inquiry and discovery of New Occurrences and Secrets in Foreign Estates; so you must allow Intelligencers and Spials of Nature their bills of Expences; else you shall never be advertised of many things most worthy to be known. For if Alexander made such a liberal Assignation of Treasure unto Aristotle, for Hunters, Fowlers, Fishers, and the like, that he might compile a History of living Creatures; certainly much more is their merit, who wander not in wild forrests of Nature, but make themselves a way through the Labyrinths of Arts.

§ Another Defect to be observed by us (indeed of great import) is, A neglect, in those which are Governours in Universities, of Consultation; and in Princes and superior Persons, of visitation; to this end, that it may with all diligence be considered and consulted of, whether the Readings, Disputations and other Scholastical exercises, anciently instituted, will be good to continue, or rather to antiquate and substitute others more effectual: For amongst Your Majesties most wise maxims, I find this, That in Jacobus. P. all usages and Præsidents, the times be considered wherein they first began; which if they were weak or ignorant, it derogateth from the Authority of the usage and leaves it for suspect. Therefore in as much as the usages and orders of Universities, were for most part derived from times more obscure and unlearned than our own, it is the more reason that they be re-examined. In this kind I will give an instance or two for examples sake, in things that seem most obvious and familiar. It is an usual practice (but in my opinion somewhat preposterous) that Scholars in the Universities, are too early entred in Logick and Rhetorick; Arts indeed fitter for Graduats than Children and Novices. For these two (if the matter be well weighed) are in the number of the gravest Sciences, being the Arts of Arts, the one for Judgment, the other for Ornament. So likewise they contain Rules and Directions, either for the Disposition or Illustration of any subject or material Circumstance thereof; and therefore for minds empty and unfraught with matter, and which have not as yet gathered that which Cicero calls Sylva and Supellex, that is stuff and variety of things, to begin with those Arts, (as if one would learn to weigh, of measure, or paint the wind) doth work but this effect, that the virtue and strength of these Arts, which are great and Universal, are almost made contemptible, and have degenerated either into Childish Sophistry or ridiculous Affectation; or at least have been embased in their reputation. And farther, the untimely and unripe accession to these Arts, hath drawn on, by necessary consequence, a watery and superficial delivery and handling thereof, as is fitted indeed to the capacities of Children. Another instance which I will set down as an Error now grown inveterate, long agoe in the Universities, and it is this; That in Scholastical exercises, there useth to be a divorce, very prejudicious, between Invention and Memory: for there the most of their speeches are either, altogether premeditate, so as they are uttered in the very precise form of words they were conceived in, and nothing left to invention; or meerey extemporal, so as very little is left to Memory; Whereas in Life and Action, there is very little use of either of these apart, but rather of their intermixture; that is, of notes or memorials;

and

and of extemporal speech: So as by this course, exercises are not accommodate to practice, nor the Image answereth to the Life: And it is ever a true rule in exercises, that all, as neer as may be, should represent those things which in common course of life use to be practised; otherwise they will pervert the motions and faculties of the mind, and not prepare them. The truth whereof is plainly discovered, when Scholars come to the Practice of their Professions, or other Actions of Civil life, which when they set into, this defect, whereof we speak, is soon found out by themselves, but sooner by others. But this part, touching the amendment of the Institutions of the Universities, I will conclude, with the clause of *Cæsars* letter to *Oppius*, *Hoc Quemadmodum fieri possit, nonnulla mihi in mentem veniunt & multa reperiri possunt, de iis rebus, rogo vos, ut cogitationem suscipiatis.*

Cic. Epist.
Ad Art.
lib. IX.

§ Another Defect which I note, ascends a little higher than the precedent: For as the progression of Learning consisteth much in the wise Government and institution of Universities in particular; so it would be more advanced, if the Universities in general, dispersed through all Europe, were united in a neerer conjunction and correspondence by mutual Intelligence. For there are, as we see, many Orders and Societies, which, though they be divided under several Sovereignties and spacious Territories, yet they do contract and maintain a Society and a kind of Fraternity one with another; in so much that they have their *Provincials* and *Generals*, to whom all the rest yield obedience. And surely as nature creates *Brother-hoods* in *Families*; and Arts Mechanical contract *Brother-hoods* in *Communalities*; the Anointment of God super-induceth a *brother-hood* in *Kings and Bishops*; Vows and Canonical rules unite a *Brother-hood* in *Orders*; in like manner, there cannot but intervene a *Noble and Generous Fraternity* between men by *Learning and Illuminations*; reflecting upon that relation which is attributed to God, who himself is called, *The Father of Illuminations or Lights.*

Iac. I.

§ Lastly, this I find fault with, which I somewhat toucht upon before, that there hath not been, or very rarely been, any publick designation of able men, who might write or make inquiry of such parts of Learning as have not been hitherto sufficiently laboured and subdued. Unto which point it will be very available, if there were erected a kind of *vistation* of Learning; and a Cense or Estimate taken, what parts of Learning are rich and well improved; what poor and destitute. For the opinion of *Plenty is amongst the Causes of want*; and the multitude of Books makes a shew rather of superfluity, than penury. Which surcharge, nevertheless, if a man would make a right judgement, is not remedied by suppressing or extinguishing books heretofore written, but by publishing good new books, which may be of such a right kind, *That, as the Serpent of Moses; may devour the Serpents of the Enchanters.*

Exod. 7.

§ The Remedies of these defects now enumerate, except the last, and of the last also, in respect of the Active part thereof, which is the *Designation of writers*, are *opera Basilica*, towards which the endeavours and industry of a private man, are commonly but as an Image in a cross way, which may point at the way, but cannot go it: But the *speculative part, which pertaineth to the examination of knowledges*, namely, what is deficient in every particular Science, is open to the industry of a private man. *Wherefore my designment is to attempt a general and*
faithful

faithful perambulation and visitation of Learning; specially with a diligent and exact enquiry, what parts thereof lye fresh and waste, and are not yet improved and converted to use by the industry of men; to the end that such a plot made and recorded to memory, may minister light both to publick Designations, and the voluntary labours of private endeavours. Wherein nevertheless my purpose is, at this time, to note only Omissions and Deficiencies, and not to make redargution of Errors and Over-sights: For it is one thing to set forth what ground lieth unmanur'd, and another thing, to correct ill husbandry in that which is manured.

§ In the undertaking and handling of which work I am not ignorant what a business I move, and what a difficult province I sustain, and also, how unequal my abilities are unto my will: yet I have a good hope, that if my extreme love to Learning carry me too far, I may obtain the excuse of affection, for that, it is *not granted to man, To love and to be wise.* I know well that I must leave the same liberty of judgement to others, that I use my self; and intruth, I shall be indifferently glad, to accept from others, as to impart that duty of humanity; *Nam qui erranti comiter monstrant viam, &c.* I do fore-see likewise, that many of those things which I shall enter and register as *Omissions* and *Deficients*, will incur divers censures; *as*, that some parts of this enterprise were done long-ago and now are extant; *others*, that they taste of curiosity, and promise no great fruit; *others*, that they are too difficult and impossible to be compassed by humane industries. For the two first, let the particulars speak for themselves: For the last, touching *impossibility*, I determine thus; All those things are to be held possible and performable, which may be accomplisht by some person; though not by every one; and which may be done by the united labours of many, though not by any one apart; and which may be effected in a successⁿ of ages, though not in the same age; and in brief, which may be finishd by the publick care and charge, though not by the ability and industry of particular persons. If, notwithstanding, there be any man who would rather take to himself that of *Solomon*, *Dicit Piger, Leo est in via*, than that of *Virgil*.

Cic. Offic.
1. ex En-
nio.

Possunt quia posse videntur: It is enough to me, if my labours may be esteemed as votes, and the better sort of wishes: for as it asketh some knowledge to demand a question not impertinent; so it requireth some sense to make a wish not absurd.

Prov. 22.
Æn. 5.

CHAP. I.

I. *An universal Partition of Humane Learning into, § History. II. Poetry. III. Philosophy. § This Partition is taken from the triplicity of Intellective Faculties: Memory: Imagination: Reason. § The same Partition is appropriate to Divine Learning.*

I. **T**hat is the truest Partition of humane Learning, which hath reference to the three Faculties of Mans soul, which is the
G
seat

seat of Learning. *History* is referred to *Memory*, *Poesie* to the *Imagination*, *Philosophy* to *Reason*. By *Poesie*, in this place, we understand nothing else, but *feigned History*, or *Fables*. As for *Verse*, that is only a stile of expression, and pertains to the *Art of Elocution*, of which in due place.

§ *History* is properly of *Individuals* circumscribed within time and place: for although *Natural History* seem to be conversant about *universal Natures*; yet this so falls out, because of the promiscuous similitude in things *Natural* comprehended under one kind; so that if you know one, you know all of that species. But if any where there be found *Individuals*, which in their kind are either singular, as the *Sun* and the *Moon*; or which do notably digress from their kind, as *Monsters*; these are as aptly handled in *Natural History*, as particular men are in *Civil History*. All these are referred unto *Memory*.

II. *Poesie*, in that fence we have expounded it, is likewise of *Individuals*, fancied to the similitude of those things which in true *History* are recorded, yet so as often it exceeds measure; and those things which in Nature would never meet, nor come to pass, *Poesie* composeth and introduceth at pleasure, even as *Painting* doth: which indeed is the work of the *Imagination*.

III. *Philosophy* dismisseth *Individuals* and comprehendeth, not the first Impressions, but the abstract Motions thereof, and conversant in compounding and dividing them according to the Law of Nature, and of the things themselves: And this is wholly the office and operation of *Reason*.

§ And that this *Distribution* is truly made, he shall easily conceive that hath recourse to the Originals of *Intellectuals*. *Individuals* only strike the sense, which is the port or entrance of the understanding: The Images or Impressions of those *Individuals* accepted from the sense, are fixt in the *Memory*; and at first enter into it entire, in the same manner they were met: afterwards the *understanding* ruminates upon them, and refines them, which then it doth either meerly review; or in a wanton delight counterfeit and resemble; or by compounding and dividing digest and endue them. So it is clearly manifest, that from these three fountains of *Memory*, of *Imagination* and of *Reason*, there are these three Emanations, of *History*, of *Poesie*, and of *Philosophy*, and that there can be no other nor no more: for *History* and *Experience*, we take for one and the same, as we do *Philosophy* and *Sciences*.

§ Neither do we think any other Partition than this is requisite to *Divine Learning*. Indeed the informations of *Oracle* and of *Sense* be divers; both in the matter and manner of Conveying, but the spirit of Man is the same, the Cells and Receptacles thereof the very same. For it comes to pass here, as if divers Liquors, and that by divers Funnel, should be receiv'd into one and the same vessel. Wherefore *Theology* also consists either of *Sacred History*; of *Parables*, which are a kind of *Divine Poesie*; or of *Precepts* and *Doctrines*, as an *eternal Philosophy*. As for that part which seems supernumerary, which is *Prophecy*, that is a branch of *History*: however *Divine History* hath that prerogative over *Humane*, that the Narration may be before the Fact as well after.

CHAP. II.

- I. The Partition of History into *Natural and Civil* (*Ecclesiastical and Literary comprehended under Civil.*) II. The Partition of *Natural History*, into the *History of Generations*. III. *Præter-Generations*. IV. *Of Arts*.

I. **H**istory is either *Natural or Civil*: in *Natural* the operations of Nature are recorded; in *Civil* the Actions of men. In both these without question, the Divine Workings are translucent, but more conspicuous in *Acts Civil*; in so much as they constitute a peculiar kind of History, which we usually stile *Sacred or Ecclesiastical*: And in truth to us such seems the Dignity of Learning and of Arts to be, that there ought to be reserv'd a *Particular History* for them apart from the rest; which yet we understand to be comprehended, as *Ecclesiastick History* also is, under *History Civil*.

II. The Partition of *Natural History* we shall raise out of the state and condition of *Nature* herself, which is found subject to a triple state, and under a three-fold regiment: For *Nature is either Free and displaying her self in her ordinary course*; as in the Heavens, living Creatures, Plants, and the Universal furniture of the world; or *put out of her usual course and depos'd from her state, by the pravities and insolencies of contumacious Matter, and the violence of Impediments*, as in Monsters: or lastly, she is *Comprest and fashioned, and as it were new cast*; as in Artificial Operations: Let therefore the partition of *Natural History*, be made into the *History of Generations*; of *Præter-Generations*, and of *Arts*; whereof the last we use to call *History Mechanical, or Experimental*. The first of these handles the *Liberty of Nature*; the second the *Errors*; the third the *Bands* thereof. And we are the rather induced to assign the *History of Arts*, as a branch of *Natural History*; because an opinion hath long time gone currant, as if *Art* were some different thing from *Nature*, and *Artificial* from *Natural*. From this mistake this inconvenience arises, that many writers of *Natural History* think they have quit themselves sufficiently, if they have compiled a *History of Creatures, or of Plants, or of Minerals*; the experiments of *Mechanical Arts* pass over in silence. But there is yet a more subtle deceit which secretly steals into the minds of Men, namely, that *Art* should be reputed a kind of *Additament* only to *Nature*, whose virtue is this, that it can indeed either perfect *Nature inchoate, or repair it when it is decayed, or set it at liberty from impediments*; but not quite alter, transmute, or shake it in the foundations: which erroneous conceit hath brought in a too hasty despair upon mens enterprises. But on the the contrary; this certain truth should be thoroughly settled in the minds of men, *That Artificials differ not from Naturals in Form and Essence, but in the Efficient only*; for man hath no power over *Nature*, save only in her *Motion*; that is, to mingle or put together *Natural bodies*, and to separate or put them asunder; wherefore, where there is *Apposition and Separation of Bodies, Natural conjoyning* (as they term it) *Active with Passive*, man may do all things; this not done, he can do nothing. Nor is it

C. Plin.
Nat. Hist.

material so things be managed in a right order, for the production of such an effect, whether this be done by the Art of Man or without the Art of Man. Gold is sometimes digested and purged from crudities and impurities, by fire; sometimes found pure in small sands, Nature performing her own work. So the Rain-Bow is formed of a dewy cloud in the Air above; form'd also by aspersion of water by us below. Therefore Nature commandeth all, and these three are her substitute Administrators, *The course of Nature; the Expatiation of Nature and Art; or the Cooperation of Man with Nature in particulars.* Wherefore it is very proportionable, that these three be comprized in Natural History, which C. *Plinius* for most part performed, who alone comprehended *Natural History* according to the dignity thereof; but what he thus comprehended he hath not handled as was meet, nay rather foully abused.

De Mirab.

III. The first of these is extant in some good perfection: *The two latter are handled so weakly and so unprofitably, that they may be referr'd to the list of Deficients.* For you shall find no sufficient and competent collection of those works of Nature which have a *Digression and Deflection from the ordinary course of Generations, Productions and Motions*; whether they be the singularities of certain Countries and Places, or the strange events of times; or the wit of chance, or the effects of latent proprieties; or *Monodicals of Nature* in their kind. It is true, there are a number of Books more than enough, full fraught with fabulous Experiments, forged Secrets, and frivolous Impostures, for pleasure and strangeness; but a substantial and severe *Collection of Heteroclitics*, and of the *wonders of Nature*, diligently examined and faithfully described, *this, I say, I find not*, especially with due rejection, and, as it were, publick proscription of untruths and fables, which have got up into credit. For as the matter is now carried, if any untruths touching Nature be once on foot and celebrated (whether it be the Reverence of Antiquity, that can thus far countenance them; or that it is a trouble to call them unto a re-examination; or that they are held to be rare ornaments of speech, for similitudes and comparisons) they are never after exterminate and called in. The use of this work honour'd with a President in *Aristotle*, is nothing less than to give contentment to curious and vain wits, as the manner of *Mirabilaries* and the *spreaders of invented Prodigies* is to do; but for two reasons serious and grave; the one to correct the partiality of Axioms, which are commonly grounded upon common and popular examples; the other because from the *wonders of Nature*, a fair and open passage is made to the *wonders of Art*. For the business in this matter is no more than by quick sent to trace out the footings of nature in her wilful wandrings; that so afterward you may be able at your pleasure, to lead or force her to to the same place and postures again.

§ Neither do I give in precept, that superstitious Narrations of Sorceries, Witch-crafts, Inchantments, Dreams, Divinations, and the like, where there is clear evidence of the fact and deed done, be altogether excluded from this *History of Marvails*. For it is not yet known, in what cases, and how far, effects attributed to superstition, do participate of Natural Causes; and therefore, howsoever the use and practice of these Arts, in my opinion, is justly to be condemned; yet from the speculation

speculation and consideration of them, (if they be closely pursued) we may attain a profitable direction; not only for the right discerning of offences in this kind of guilty persons; but for the farther disclosing of the secrets of Nature. Neither surely ought a man to make scruple of entering and penetrating the vaults and recesses of these Arts, that proposeth to himself only the inquisition of *Truth*, as your Majesty hath confirmed in your own example: For you have with the two clear and quick-sighted eyes of *Religion and Natural Philosophy*, so wisely and thoroughly enlightened these *shadows*, that you have proved your self most like the *Sun* which passeth through polluted places, yet is not distained. But this I would admonish, that these *Narrations* which have mixture with *Superstition*, be sorted by themselves, and not be mingled with the *Narrations*, which are purely and sincerely Natural. As for the *Narrations* touching the *Prodigies* and *Miracles* of *Religions*, they are either not true; or no way Natural, and therefore pertain not to *Natural History*.

R. James;
his Demer-
nology.

IV. For History of Nature, wrought and subdued by the hand, which we are wont to call *Mechanical*, I find indeed some collections made of Agriculture, and likewise of many *Manual Arts*; but commonly (which in this kind of knowledge is a great detriment) with a neglect and rejection of *Experiments familiar and vulgar*; which yet, to the interpretation of Nature, do as much, if not more, conduce, than Experiments of a higher quality. But it is esteemed a kind of dishonour and aspersion unto Learning, if learned men should, upon occasion perchance, descend to the Inquiry or Observation of *Matters Mechanical*, except they be reputed for *Secrets of Art, or Rarities, or Subtilties*. Which humour of vain and supercilious arrogance, *Plato* justly derideth, where he brings in *Hippias* a vaunting Sophist, disputing with *Socrates* a severe and solid inquisitor of Truth; where the subject being of Beauty, *Socrates* after his wandering and loose manner of disputing, brought in first an example of a fair Virgin, than of a fair Horse, than of a fair Pot well glaz'd; at this last instance *Hippias* somewhat mov'd said; *Were it not for courtesie sake, I should disdain to dispute with any that alledged such base and sordid instances*; to whom *Socrates*, *You have reason, and it becomes you well, being a man so trim in your vestments, and so neat in your shooes*; and so goes on in an Irony. And certainly this may be averr'd for truth, that they be not the highest instances, that give the best and surest information. This is not unaptly express'd in the Tale, so common, of the Philosopher, *That while he gaz'd upward to the stars fell into the water*: for if he had lookt down, he might have seen the stars in the water; but looking up to heaven he could not see the water in the stars. In like manner it often comes to pass that small and mean things conduce more to the discovery of great matters, than great things to the discovery of small matters; and therefore *Aristotle* notes well, *that the Nature of every thing is best seen in his smallest Portions*. For that cause he enquires the Nature of a Common-wealth, first in a Family and the simple conjugations of Society, Man and Wife; Parents and Children; Master and Servant, which are in every cottage. So likewise the Nature of this great City of the world, and the Policy thereof, must be sought in every first Concordances and least Portions of things. So we see that secret of Nature (esteemed one of the great

In Hipp.
Major.

Laert. in
Thaete.

Pol. lib. 2^d

mysteries)

mysterics) of the turning of Iron toucht with a Loadstone towards the Poles, was found out in needles of Iron, not in bars of Iron.

§ But if my judgement be of any weight, I am wholly of this mind, that the use of *Mechanical History*, to the raising of *Natural Philosophy*, is of all other the most radical and fundamental; such *Natural Philosophy*, I understand, as doth not vanish into the fumes of subtile and sublime speculations, but such, as shall be effectually operative to the support and assistance of the incommodities of mans life: For it will not only help for the present, by connecting and transferring the observations of one Art, into the use of others, which must needs come to pass, when the experiences of divers Arts shall fall into the consideration and observation of one man; but farther, it will give a more clear illumination, than hitherto hath shined forth, for the searching out of the causes of things, and the deducing of Axioms. For *like as you can never well know and prove the disposition of another man, unless you provoke him; nor Proteus ever changed shapes, until he was straitned and held fast with cords; so nature provoked and vexed by Art, doth more clearly Appear, than when she is left free to her self.* But before we dismiss this part of *Natural History*, which we call *Mechanical* and *Experimental*, this must be added; That the body of *such a History*, must be built not only of *Mechanical Arts themselves*, but the *operative part of Liberal Sciences*, as also many practices not yet grown up into Art, that nothing profitable may be omitted, which avails to the information of the understanding. And so this is the first Partition of *Natural History*.

CHAP. III.

- I. The Second Partition of *Natural History*, from the use and end thereof into *Narrative and Inductive*. And that the most noble end of *Natural History* is, that it minister and conduce to the building up of *Philosophy*: which end *Inductive History* respecteth. II. The Partition of the *History of Generations* into the *History of the Heavens*: *The History of the Meteors*: *The History of the Earth and Sea*: *The History of Massive Bodies*, or of the greater Corporations: *The History of Kinds*, or of the lesser Corporations.

I. **N**atural History, as in respect of the subject, it is of three sorts, as we observed before; so in respect of the use, of two: for it is applied, either for the knowledge of things themselves recorded in *History*; or as the Primitive matter of *Philosophy*. The former of these, which either for the pleasure of the Narrations is delightful, or for the practice of experiments is useful, and for such pleasure or profits sake is pursued, is of far inferiour quality, compared with that which is the Materials and Provision of a *true and just induction*, and gives the first suck to *Philosophy*, wherefore let us again divide *Natural History*, into *History Narrative*, and *Inductive*; this latter we report as *Deficient*. Nor do the great names of Ancient Philosophers, or the mighty

volumes

volumes of Modern writers so astonish my sense; for I know very well that *Natural History*, is already extant, ample for the Mass, for variety delightful, and often curious for the diligence: but if you take from thence *Fables* and *Antiquity*, and *Allegations of Authors*, and *vain Controversies*, *Philosophy* and *Ornaments*, which are accommodate to Table-talk, or the *night-discourses* of Learned men, then will the sequel, for the *Instaurations* of *Philosophy*, come to no great matter: And to speak truth, this is far short of the variety which we intend. For first those two parts of *Natural History*, whereof we have spoken, The *History of Præter-generations*, and of *Arts*, matters of great consequence, are there *Deficient*: then in that third general Part mentioned before, namely of *Generations*, of five parts thereof, the *Natural History* extant gives satisfaction only to one.

II. For the *History of Generations* hath Five subordinate Parts; The first is of *Celestial Bodies*, which comprehends the *Phænomena* sincere, and not dogmatiz'd into any peremptory assertions: The second of *Meteors* with the *Comets*, and of the *Regions*, as they call them, of the *Air*; neither is there extant any *History* concerning *Comets*, *Fiery Meteors*, *Winds*, *Rain*, *Tempests*, and the rest, of any value: The third is of the *Earth* and of the *Water* (as they are integral parts of the *World*) of *Mountains*, of *Rivers*, of *Tydes*, of *Sands*, of *Woods*, as also of the *Figure* of the continents, as they are stretcht forth: in all these particulars the *Inquiries* and *Observations* are rather *Natural*, than *Cosmographical*: Fourthly, touching the *general Masses of Matter*, which we stile the *Greater Collegiats*, commonly called the *Elements*: Neither are there found any narrations touching *Fire*, *Air*, *Water*, and of their *Natures*, *Motions*, *Workings*, *Impressions*, which make up any complete body: The fifth and the last Part is of the *Perfect and exact Collections*, which we entitle the *lesser Collegiats*, commonly called *Kinds* or *Specificks*. In this last part only the industry of writers hath appeared, yet so as was prodigally wasted in superfluous matter, swelling with the outward descriptions of living *Creatures*, or of *Plants* and such like; than enrich with solid and diligent observations, which in *Natural History* should every where be annex and interferted. And to speak in a word, all the *Natural History* we have, as well in regard of the *Inquisition*, as of the *Collection*, is no way proportionable in reference, to that end whereof we speak, namely the *Raising and advancing of Philosophy*: Wherefore we pronounce *Inductive History* *Deficient*. And thus far of *Natural History*:

C H A P. IV.

I. The Partition of *Civil History*, into *Ecclesiastical and Literary*, and, which retains the general name, *Civil*. II. *Literary Deficient*. § *Precepts how to compile it.*

* I. *Civil History*, in our Judgement, is rightly divided into three kinds; first into *Sacred or Ecclesiastical*; then into that which retains the general name *Civil*; lastly, into that of *Learning and Arts*. We will begin with that kind we set down last, because the other are extant, *but this I thought good to report as Deficient*; it is the *History of Learning*. And surely the *History of the world* destitute of this, may be thought not unlike the statue of *Polyphemus*, with his eye out, that part of the Image being wanting, which doth most shew the nature and spirit of the Person. And though we set down this as *Deficient*, yet we are not ignorant, that in divers particular Sciences of *Juris-consults, Mathematicians, Rhetoricians, Philosophers*, there are made some slight Memorials and small relations of *Sects, Schools, Books, Authors*, and such like successions of Sciences. There are likewise extant, some weak and barren discourses touching the *Inventors of Arts and Usages*; but a Just and General *History of Learning*, we avouch that none hitherto hath been publisht. Wherefore we will propound the Argument; the way how to contrive it, and the use thereof.

II. *The Argument is nothing else but a recital from all Times, what Knowledges and Arts, in what Ages and Climates of the world have flourisht.* Let there be made a commemoration of their *Antiquities, Progressions and Peragations*, through divers parts of the World: (for Sciences shift and remove, as people do.) Again, of their *Declensions, Oblivions, and Instaurations*. Let there likewise be observations taken through all *Arts*, of the *occasion and original of their Invention*; of their *Manner of delivery*, and the discipline of their managings, *Course of study and exercises*. Let there also be added the *Sects*, then on foot; and the *more famous controversies* which busied and exercised Learned men; the scandals and reproaches to which they lay open; the *Lauds and Honours* wherewith they were grac'd. Let there be noted the *Chiefest Authors, the best Books, Schools, Successions, Universities, Societies, Colledges, Orders*, and whatsoever else belongs to the State of Learning. But above all, let this be observed (which is the *Grace and Spirit of Civil History*;) that the *Causes and Consultations* be *Connexed* with the events: namely, that *the nature of Countries and People* be recorded, *the dispositions apt and able; or inept and inable for divers disciplines*; *the Occurrences of time Adverse, or Propitious to Learning*; *the zeals and mixtures of Religions*; *the Discountenances, and favours of Laws*; and lastly, *the eminent virtues and sway of Persons of note, for the promoting of Learning*; and the like. But our advice is, that all these points be so handled, that time be not wasted in praise and censure of particulars, after the manner of *Criticks*; but that things be plainly and historically related, and our own judgements very sparingly interposed.

§ *As for the manner of compiling such a History, we do especially admonish thus much; that the Matter and Provision thereof be drawn, not only from Histories and Criticks; but also that through every century of years or lesser Intervals; by a continued sequence of time, deduced from the highest antiquity; the best Books written within those distinguished spaces of time be consulted with; that from a taste and observation of the argument, stile and method thereof, and not a through a perusal, for that were an infinite work, the learned spirit of that age, as by a kind of charm, may be awak'd and rais'd up from the dead.*

§ *As touching the use of this Work, it is design'd to this end; not; that the Honour and State of Learning usher'd in by so many Images and Ghosts of the Learned, should be celebrated, or that for the earnest affection we bear to Learning, we desire, even to a curiosity, to enquire and know, and to conserve whatsoever to the state of Learning may any way appertain; but chiefly, for a more serious and grave purpose. It is, in few words this, For that such a Narration, as we have described, in our opinion, may much confer to the wisdom and judgement of Learned men, in the use and administration of Learning: and that the passions and perturbations; the vices and virtues; as well about Intellectual matters, as Civil may be observed; and the best Presidents for practice may be deduced therefrom. For it is not Saint Austins, nor Saint Ambrose his works, (as we suppose) that will make so wise a Bishop or a Divine, as Ecclesiastical story throughly read and observed: which without question may befall Learned men from the History of Learning. For whatsoever is not munited and sustained by Example and Records, is expos'd to imprudency and ruine. Thus much of the History of Learning.*

CHAP. V.

Of the Dignity. § And difficulty of Civil History.

C*ivil History* properly so called comes now to be handled; The *Dignity and Authority* whereof, is very eminent among secular writings: For upon the credit of *this History*, the examples of our Ancestors; the vicissitudes of Affairs; the grounds of Civil Prudence; and the Name and Fame of men depend.

§ But the *Difficulty* is as great as the *Dignity*; for to draw back the mind in writing, to the contemplation of matters long ago pass'd; and thus, as it were, to make it aged; to search out with diligence; and to deliver with faith and freedom, and with the life and height of expression; to represent unto the eyes, the changes of times; the characters of Persons; the incertainties of Counsels; the Conveyances of Actions (as of waters,) the subtilties of Pretentions, the sectets of State, is a task of great pains and judgements; especially seeing Ancient reports, are subject to incertainty; Modern liable to danger: Wherefore the errors are many which attend *Civil History*; whilst some write poor and popular Relations, the very reproach of History;

others patch up, in a rash haste, and unequal contexture, particular Reports, and brief Memorials, others slightly run over the heads of actions done; others on the contrary pursue every trivial Circumstance, nothing belonging to the sum and issue of things; some out of a too partial indulgence to their own wit, take confidence to fain many things; but others add and imprint upon affairs the Image, not so much of their own wit, as of their affections; mindful rather of their own parts, than to become Religious deponents for truth; others every where interlace such Politick observations; as they most fancy, and seeking occasion of digression for ostentation, too slightly break off the contexture of the discourse; others for want of moderation and judgement over do things, by the prolixity of their speeches, Harangues or other performances, so as it is sufficiently manifest, that in the writings of men, *there is not any kind more rare than a just History, and in all points complete and perfect.* But our purpose at this present is, to set down a partition of knowledge, *for the observation of parts omitted; and not a censure of parts erroneous.* Now we will proceed to the *Partitions of Civil History*, and those of divers sorts; for the particular kinds will be less intangled, if divers partitions be propounded; than if one partition by divers members be curiously drawn out.

CHAP. VI.

The first Partition of Civil History, into § Memorials. § Antiquities. § And Perfect History.

C*ivil History is of three kinds, not unfitly to be compared to the three sorts of Pictures or Images: for of Pictures and Images we see, some are unperfect and unfinisht; others perfect; and others decayed and defaced with Age. In like manner we will divide Civil History, which is the Image of Actions and Times, into three kinds, agreeable to those of Pictures; namely, Memorials; Perfect History; and Antiquities. Memorials are Histories unfinisht, or the first and rough draughts of History: Antiquities are Histories defaced; or the Remains of History, which have casually escaped the shipwrack of Time.*

§ *Memorials or Preparations to History*, are of two sorts, whereof one may be termed *Commentaries*; the other *Registers*. *Commentaries* set down a naked Continuance and Connexion of Actions and Events, without the Causes and Pretexts of Business; the beginnings and Motives thereof; also the Counsels and Speeches, and other preparations of Actions: For this is the true nature of *Commentaries*, though *Cæsar* in modesty mixt with greatness, did for his pleasure apply the name of *Commentaries*, to the best History that is extant. But *Registers* are of two sorts, for either they comprehend the titles of Matter and Persons in a continuation of Times, such as are *Calendars* and *Chronologies*: or *Solemnities of Acts*; of which kind are the Edicts of Princes; the Decrees of Councils; the Proceedings of Judgements;

Publick Orations; Letters of Estate, and the like; without the Contexture or Continued thred of the *Narration*.

§ *Antiquities*, or the *Remains of Histories*, are as we said, *tanquam Tabula Naufragii*; when industrious and understanding persons (the memory of Things being decayed, and almost overwhelmed with oblivion) by a constant and scrupulous diligence, out of Genealogies, Calendars, Inscriptions, Monuments, Coyns, Proper Names and Styles; Etymologies of words, Proverbs, Traditions, Archives and Instruments, as well publick as private; Fragments of stories, scattered passages of Books that concern not History; out of all these, I say, or some of them, they recover and save somewhat from the Deluge of Time. Certainly a painful work, but acceptable to all sorts of Men, and attended with a kind of Reverence, and indeed worthy (all Fabulous Originals of Nations defac'd, and extinguisht) to be substituted in the room of such counterfeit stuff: but yet of the less Authority; because what is prostitute to the license of private designs, loses the honour of publick regard. In these kinds of *Imperfect Histories*, I design no Deficiency, seeing they are *tanquam imperfectè mista*, so as such Defects are but their nature. As for *Epitomes the corruptions*, certainly, and the *Moths of Histories*, we would have them banisht (wherein we concur with many of most sound judgement) as those that have fretted and corroded the sound bodies of many excellent Histories; and wrought them into base and unprofitable dregs.

C H A P. VII.

The Partition of Perfect History, into *Chronicles of Times*; *Lives of Persons*; *Relations of Acts*. § The Explication of the History of *Lives*. § Of *Relations*.

Just or Perfect History is of three kinds, according to the nature of the Object which it propounds to represent; for it either represents a portion of Time; or some memorable Person; or some Famous Act: The first we call *Chronicles* or *Annals*; the second *Lives*; the third *Relations*. Of these, *Chronicles* seem to excel, for Celebrity and Name; *Lives*, for profit and examples; *Relations*, for sincerity and verity. For *Chronicles*, represent the magnitude of publick Actions, and the extern faces of Men, as they regard the publick, and involve in silence smaller Passages, which pertain either to Matter or Men. And seeing it is the workmanship of God alone, to hang the greatest weight upon the smallest wyers; it comes many times to pass, that such a History pursuing only the greater occurrences, rather sets forth the Pomp and Solemnity, than the true resorts, and the intrinsick contextures of business. And although it doth add and intermix the Councils themselves; yet affecting greatness, it doth besprinkle mens actions with more solemnness and wisdom, than indeed is in them; that a Satyre may be a truer table of a Mans life, than many such Histories. Contrariwise; *Lives*, if they be well written with diligence and judgement (for we do not speak of *Elogies*, and such slight commemorations) although they propound un-

to themselves some particular person, in whom Actions, as well commune as solemn; small as great; private as publick, have a composition and commixture; yet, certainly, they exhibit more lively and faithful Narrations of Matters; and which you may more safely and successfully transferr into example. But *Special Relations of Actions*, such as are the *wars of Peloponnesus*; the *Expedition of Cyrus*; the *Conspiracy of Cataline*, and the like, ought to be attired with a more pure and sincere Candor of Truth than the *Perfect Histories of Times*; because in them may be chosen an Argument more particular and comprehensible; and of that quality, as good notice and certitude, and full information, may be had thereof: whereas, on the contrary, the *Story of Time* (specially more ancient than the age of the writer) doth often fail in the memory of things, and containeth blank spaces, which the wit and conjecture of the writer (confidently enough) useth to seize upon and fill up; Yet this which we say, touching the sincerity of *Relations*, must be understood with reservation, for indeed it must be confessed (since all mortal good laboureth of imperfection, and conveniences with disconveniences are usually connext) that such kind of *Relations*, specially if they be published about the times of things done; seeing very often they are written with passion or partiality, of all other narrations, are deservedly most suspected. But again, together with this inconvenience, this remedy groweth up; that these same *Relations*, being they are not set out by one side only, but through faction and partiary affections are commonly published by some or other on both sides; they do by this means open and hedge in a middle way between extremes to truth: and after the heat of passions is over, they become, to a good and wise writer of History, not the worst matter and seeds of a perfect History.

§ As touching those points which seem *deficient* in these three kinds of History, without doubt there are many particular Histories (of such I speak as may be had) of some dignity or mediocrity, which have been hitherto passed by, to the great detriment of the honour and fame of such Kingdoms and States, to which they were due, which would be too tedious here to observe. But leaving the stories of forreign Nations, to the care of Forreign Persons; lest I should become *Curiosus in aliena Repub.* I cannot fail to represent unto Your Majesty the indignity and unworthiness of the *History of England*, as it now is, in the main continuation thereof, as also the partiality and obliquity of that of *Scotland*, in the latest and largest author thereof: supposing that it would be honour to Your Majesty, and a work acceptable with Posterity, if this Island of *Great Britany*, as it is now joyned in a Monarchy for the Ages to come, so were joyned in one History for the times past, after the manner of the sacred History, which draweth down the story of the Ten Tribes, and of the two Tribes as Twins together. And if it shall seem that the weight of the work; (which certainly is great and difficult) may make it less exactly, according to the worthiness thereof, performed; behold an excellent period of much smaller compass of time, as to the story of *England*; that is to say, from the uniting of the Roses to the uniting of the Kingdoms; a space of time, which in my judgment contains more variety of rare events, than in like number of successions ever was known in an Hereditary Kingdome.

For

For it begins with the mixt Title to a Crown, partly by might partly by right: An entry by Arms; an establishment by marriage; so there followed times answerable to these beginnings; like waves after a great tempest, retaining their swellings and agitations, but without extremity of storm; but well past through by the wisdom of the Pilot, *being one of the most sufficient Kings of all his Predecessors.* Then followed a King whose Actions conducted rather by rashness, than counsel, had much intermixture with the affairs of Europe; ballancing and inclining them according as they sway'd; In whose time began that *great Alteration in the Ecclesiastical State*; such as very seldom comes upon the Stage. Then followed the Reign of a Minor; then an Offer of an Usurpation, though it was very short, *like a Fever for a day*: Then the Reign of a woman matcht with a Forreigner: Again, of a woman that liv'd solitary and unmarried. And the close of all was this happy and glorious event; that is, that this Island divided from all the world, should be united in it self; by which that ancient Oracle given to *Aeneas*, which presaged rest unto him; *Antiquam exquirite Matrem*; should be fulfill'd upon the most noble Nations of England and Scotland, now united in that name of *Britannia*, their ancient Mother; as a Pledge and Token of the Period and Conclusion, now found of all Wandrings and Peregrination. *So that as massive bodies once shaken, feel certain Trepidations before they fix and settle*; so it seems probable, that by the Providence of God, it hath come to pass, *That this Monarchy, before it should settle and be establish'd in your Majesty and your Royal Progeny,* (in which I hope it is firm fixt for ever) *it should undergoe so many changes, and vicissitudes, as prelusions of future Stability.*

§ As for Lives, when I think thereon, I do find strange that these our Times have so little known, and acknowledged their own virtues; *being there is so seldom any Memorials or Records of the lives of those who have been eminent our times.* For although Kings and such as have absolute soveraignty, may be few; and Princes in free Common-wealths (so many States being collected into Monarchies,) are not many; yet however, there hath not been wanting excellent men (though living under Kings,) that have deserv'd better, than an incertain and wandring Fame of their memories; or some barren and naked Elegie. For herein the invention of one of the late Poets, whereby he hath well enricht the ancient Fiction, is not inelegant: *He fains that at the end of the Thread of every mans life, there was a Medal or Tablet, whercon the name of the Dead was stampt*; and that time waited upon the shears of the fatal Sister, and as soon as the Thread was cut, caught the Medals, and carrying them away; a little after threw them out of his Bosom into the River Lethe. And that about the Bank there were many Birds flying up and down, that would get the Medals; and after they had carried them in their beaks a little while, soon after, through negligence suffered them to fall into the River. Amongst these Birds there were a few swans found, which if they got a Medal with a name, they used to carry it to a certain Temple consecrate to Immortality. But such swans are rare in our Age: And although many men more mortal in their vigilances and studies, than in their bodies, despise the Memory of their Name, as if it were fume or air, *Animæ nil magnæ laudis egent*: nely whose Philosophy and severity springs from that root, *Non pri-*

Hen. VII.

Hen. VIII.

Ed. VI.

Maria
Elisa.Virg. Æn.
3.Iacobus.
R. Carus
lus. R.

us laudes contempsumus quam laudanda facere desivimus. Yet that will
 PROV. 10: not with us, preiudicate Salomon's Judgment, *The memory of the Just is with Benediction*; but the name of the wicked shall putrife: The one perpetually flourishes; the other instantly departs into Oblivion; or dissolves into an ill Odour. And therefore in that stile and form of speaking, which is very well brought in use, attributed to the Dead, of *Happy Memory*; of *Pious Memory*; of *Blessed Memory*; we seem to acknowledge that which Cicero alledgeth; borrowing it from Demosthenes, *Bonam Famam propriam esse possessionem defunctorum*; which possession I cannot but note that in our age it lyes much wast and neglected.

§ *As concerning Relations* it could be in truth, wish'd, that there were a greater diligence taken therein: For there is no Action more eminent, that hath not some able Pen to attend it, which may take and transcribe it. And because it is a Quality not common to all men to write a *Perfect History* to the life and Dignity thereof; (as may well appear by the small number, even of mean Writers in that kind) yet if particular Actions were but by a tolerable Pen reported, as they pass, it might be hoped that in some after Age, Writers might arise, that might compile a *Perfect History* by the help and assistance of such *Notes*: For such *Collections* might be as a *Nursery Garden*, whereby to Plant a fair and stately Garden, when time should serve.

of

CHAP. VIII.

The Partition of the *History of Times*, into *History Universal*; and *Particular*. The *Advantages* and *Disadvantages* of both.

THE *History of Times* is either *Universal*; or *Particular*: This comprehends the affairs of some Kingdom; or State; or Nation: That, the affairs of the whole world. Neither have there been wanting those, who would seem to have composed a *History of the world*, even from the Birth thereof; presenting a miscellany of matter and compends of *Reports* for *History*. Others have been confident that they might comprize, as in a *Perfect History*, the Acts of their own times, memorable throughout the world; which was certainly a generous attempt, and of singular use. For the actions, and negotiations of men, are not so divorced through the division of Kingdoms, and Countries; but that they have many coincident Connections: wherefore it is of great import to behold the fates, and affairs destinate to one age or time drawn, as it were, and delineate in one *Table*. For it falls out that many writings not to be despised (such as are they whereof we spake before, *Relations*) which perchance otherwise would perish; nor often come to the Press; or at least the chief heads thereof might be incorporated into the body of such a *General History*, and by this means be fixed and preserved. Yet notwithstanding if a man well weigh the matter, he shall perceive that the Laws of a *Just History* are so severe and strict, as they can hardly be observ'd in such a vastness of Argument; so that the Majesty of *History* is rather minisht, than amplified by the greatness of the Bulk.

For

For it comes to pass that he who every where pursueth such variety of matter; the precise strictness of Information by degrees slackned; and his own diligence dispersed in so many things, weakned in all, takes up popular Reports and Rumours; and from *Relations* not so authentick, or some other such like slight stuff, compiles a *History*. Moreover he is forced (lest the work should grow too voluminous) purposely to pass over many occurrences worth the relating; and many times to fall upon the way of Epitomes and abridgments. There is yet another danger of no small importance, which such a work is liable unto, which is directly opposed to the profitable use of *Universal History*; for as General History preserves some *Relations*, which, it may be, otherwise would be lost; so contrarywise many times it extinguishes other fruitful *Narrations* which otherwise would have lived through *Breviaries*, which are ever accepted in the world.

CHAP. IX.

Another Partition of the *History of Times* into *Annals* and *Journals*.

THE Partition of the *History of Time* is likewise well made into *Annals*; and *Journals*: Which Division, though it derive the names from the *Period of Times*, yet pertains also to the choice of Business. For *Tacitus* saith well, when falling upon the mention of the magnificence of certain structures, presently he adds; *Ex dignitate Populi Ro. reperitum esse, res illustres, Annalibus; Talia, Diurnis urbis Actis mandari*: Applying to *Annals*, Matters of State; to *Diaries*, Acts and Accidents of a meaner nature. And in my judgment a Discipline of Heraldry would be to purpose in the disposing of the merits of Books; as of the merits of Persons. For as nothing doth more derogate from Civil Affairs, than the confusion of Orders and Degrees; so it doth not a little embase the authority of a grave *History*, to intermingle matters of trivial consequence, with matters of State; such as are Triumphs, and Ceremonies, Shews, and Pageants, and the like. And surely it could be wisht that this distinction would come into Custom. In our Times *Journals* are in use only in Navigations, and Expeditions of war. Amongst the Ancients it was a point of Honour to Princes to have the Acts of their Court refer'd to *Journals*. Which we see was preserv'd in the reign of *Ahasuerus* King of *Persia*, who, when he could not take rest, call'd for the *Chronicles*; wherein he reviewed the Treason of the Eunuces past in his own time. But in the *Diaries* of *Alexander* the Great, such small Particularities were contained, that if he chanc'd but to sleep at the Table, it was Registred. For neither have *Annals* only compriz'd grave matters; and *Journals* only light; but all were promiscuously, and cursorily taken in *Diaries*; whether of greater, or of lesser Importance.

Annal. 12.

Lib. 205;
Cap 6.

Plutarch
Symp. 23

C H A P. X.

A Second Partition of History Civil, into Simple, and Mixt. § Cosmography a mixt History.

THE last Partition of *Civil History* may be this. *History Simple*; and *Mixt*. The *Commune Mixtures* are two, the one from *Civil Knowledge*; the other specially from *Natural*: For there is a kind of writing introduc'd by some, to set down their Relations, not continued according to the Series of the *History*; but pickt out, according to the choice of the Author, which he after re-examines, and ruminates upon; and taking occasion from those selected pieces, discourses of *Civil Matters*. Which kind of *Ruminated History*, we do exceeding well allow of; so such a Writer do it indeed, and profess himself so to do. But for a man resolutely writing a *Just History*, every where to ingest *Politick inter-lacings*; and so to break off the thread of the *story*, is unseasonable and tedious. For although every wise *History* be full, and as it were impregnant with *Political Precepts and Counsels*; yet the *Writer* himself should not be his own *Mid-wife* at the delivery.

§ *Cosmography* likewise is a *mixt History*, for it hath from *Natural History*, the *Regions* themselves, and their site, and commodities; from *Civil History*, *Habitations*, *Regiments* and *Manners*; from the *Mathematicks*, *Climates*, and the *Configurations* of the *Heavens*, under which the *Coasts* and *Quarters* of the *World* do lye. In which kind of *History* or *Knowledge*, we have cause to *Congratulate* our *Times*; for the world in this our age, hath through lights made in it, after a wonderful manner. The *Ancients* certainly had knowledge of the *Zones*, and of the *Antipodes*;

Virg.
Geor. I.

(*Nosq; ubi Primus Equis Oriens afflavit anhelis,*
Illic sera Rubens accendit Lumina vesper)

and rather by *Demonstrations* than by *Travels*. But for some small keel to emulate *Heaven* it self; and to *Circle* the whole *Globe* of the *Earth*, with a more oblique and winding *Course*, than the *Heavens* do; this is the glory and prerogative of our *Ages*. So that these *Times* may justly bear in their word, not only *Plus ultra*, whereas the *Ancients* used *non ultra*; and also *imitabile fulmen*, for the *Ancients* *non imitabile fulmen*.

Virg. An.
6.

Demens qui Nimbos & non imitabile Fulmen.

But likewise that which exceeds all admiration *imitabile Cælum*, our *voyages*; to whom it hath been often granted to wheel and role about the whole compass of the *Earth*, after the manner of *Heavenly Bodies*. And this excellent felicity in *Nautical Art*, and environing the world, may plant also an expectation of further *Proficiencies* and *Augmentations*

tations of Sciences; specially seeing it seems to be decreed by the Divine Council, that these two should be Coevals, for so the Prophet *Daniel* speaking of the latter times fore-tells, *Plurimi pertransibunt & Cap. 12*
augebitur Scientia: as if the through Passage, or Perlustration of the World, and the various propagation of knowledge were appointed to be in the same Ages; as we see it is already performed in great part; seeing our times do not much give place for Learning to the former two *Periods*, or *Returns* of Learning; the one of the *Grecians*; the other of the *Romans*; and in some kinds far exceed them.

CHAP. XI.

I. The Partition of *Ecclesiastical History*, into the *General History of the Church*. II. *History of Propheſie*. III. *History of Providence*.

History *Ecclesiastical* falls under the same division commonly with *Civil History*; for there are *Ecclesiastical Chronicles*; there are *Lives of Fathers*; there are *Relations of Synods*, and the like, pertaining to the *Church*. In proper expression this kind of History is divided, into the *History of the Church* by a general name, *History of Propheſie*; and *History of Providence*. The first recordeth the times and different state of the *Church Militant*; whether she flote as the *Ark in the Deluge*; or sojourn as the *Ark in the WilderNESS*; or be at the rest as the *Ark in the Temple*; that is, the State of the *Church in Persecution*; in *Remove*; and in *Peace*. In this Part I find no *Deficiency*; but rather more things abound therein, than are wanting; only this I could wish, that the virtue and sincerity of the Narrations were answerable to the greatness of the *Mas*.

II. The Second Part which is the *History of Propheſie*, consisteth of two Relatives; the *Propheſie it self*; and the *accomplishment thereof*: wherefore the design of this work ought to be, that every *Propheſie of Scripture* be sorted with the truth of the event; and that throughout all the ages of the world; both for Confirmation of Faith; as also to plant a Discipline; and skill in the Interpretation of *Propheſies*, which are not yet accomplisht. But in this work, that latitude must be allowed which is proper, and familiar unto *Divine Propheſies*; that their accomplishments may be both perpetual and punctual: For they resemble the nature of their Author, to whom one day is as a thousand years, and a thousand years are but as one day: *Psal. 90* And though the fulness and height of their complement be many times assigned to some certain age, or certain point of time, yet they have nevertheless many stairs and scales of Accomplishment throughout divers Ages of the world. This work I set down as *Deficient*; but it is of that nature as must be handled with great wisdom, sobriety, and reverence, or not at all.

III. The third Part which is the *History of Providence* hath fallen indeed upon the Pens of many pious Writers, but not without siding

of Partiaries; and it is employed in the observation of that divine Correspondence which often interveneth between Gods revealed Will, and his secret Will. For though the Counsels and Judgements of God be so obscure, that they are inscrutable to the Natural man; yea, many times withdraw themselves even from their eyes, that look out of the Tabernacle: Yet sometimes by turns it pleaseth the Divine wisdom for the Confirmation of this; and Confutation of those which are as without God in the world; to purpose them to be seen written in such Capital Letters, that, as the Prophet speaketh; *Every one that runs by, may read them*; that is, *that men meerly Sensual and Carnal; who make haste to pass over those divine Judgements; and never fix their cogitations upon them: yet though they are upon the speed, and intend nothing less, they are urg'd to acknowledge them.* Such as are late, and unlooked for Judgements; unhop'd for Deliverances suddenly shining forth; the divine Counsels, passing through such Serpentine windings, and wonderful mazes of things; at length manifestly disintangling and clearing themselves. Which serve not only for the Consolation of the minds of the Faithful; but for the Astonishment and Conviction of the Consciences of the Wicked.

CHAP. XII.

The Appendices of History Conversant about the words of Men, as History it self about the Deeds: The Partition thereof into, *Orations, Letters. And Apophthegms.*

BUT not the Deeds only, but the Words also of Men, should be retained in Memory. It is true that sometimes Words are inserted into the History it self, so far as they conduce to a more perspicuous, and solemn Delivery of Deeds. But the sayings and words of men, are preserved properly in Books of *Orations; Epistles; and Apophthegms.* And certainly the *Orations,* of wise men made touching business, and matters of grave and deep importance, much conduce, both to the knowledge of things themselves; and to Elocution.

§ But yet greater Instructions for Civil Prudence, are from the *Letters of great Personages,* touching the Affairs of State. And of the words of men, there is nothing more sound and excellent, than are *Letters;* for they are *more natural than Orations; more advised than sudden Conferences.* The same *Letters,* when they are continued according to the sequel of times (as is observed in those sent by Embassadors, Governours of Provinces, and other Ministers of Estate) are without Question of all other the most precious provision for History.

§ Neither are *Apophthegms* only for delight, and ornament; but for real Business; and Civil Usages, for they are, as he said, *Secures aut mucrones verborum,* which by their sharp edge cut and penetrate the knots of Matters and Business: And Occasions run round in a Ring; and what was once profitable, may again be practis'd; and again be effectual, whether a man speak them as ancient; or make them his

^a Cic. Epist. Fam. L. IX.

own. Neither can it be doubted but that is useful in Civil negotiations, which *Caesar* himself hath honour'd by his own example; it is pity his book is lost, seeing what we have in this kind, seems to be collected with little choice. Thus much of *History*, namely of that part of Learning, which answereth to one of the Cells, or Domicils of the understanding, which is, *Memory*.

a Briam &
tu Inclite
Heros;

C H A P. XIII.

The Second Principal Part of Humane Learning Poësie; I. The Partition of Poësie into Narrative. II. Dramatical. III. And Parabolical. § Three Examples of Parabolical Poësie propounded: IV. Natural. V. Political. VI. Moral.

NOW let us proceed to *Poësie*. *Poësie* is a kind of Learning in words restrained; in matter loose and licens'd; so that it is referred, as we said at first, to the *Imagination*; which useth to devise, and contrive; unequal and unlawful Matches and Divorces of things. And *Poësie*, as hath been noted, is taken in a double sence; as it respects Words; or as it respects Matter. In the first sence, it is a kind of Character of speech; for *Verse*, is a kind of Stile and Form of Elocution, and pertains not to Matter; for a true Narration may be composed in *Verse*; and a Feigned in *Prose*. In the latter sence, we have determined it, a Principal member of Learning, and have placed it next unto *History*; seeing it is nothing else than Imitation of *History* at pleasure. Wherefore searching and pursuing in our Partition the true veins of Learning; and in many points, not giving place to custom, and the received Divisions; we have dismissed *Satyrs*, and *Elegies*, and *Epigramms*, and *Odes*, and the like, and referred them to *Philosophy* and *Arts of Speech*. Under the name of *Poësie*, we treat only of *History Feigned at Pleasure*.

I. The truest Partition of *Poësie*, and most appropriate, besides those Divisions common to it with *History* (for there are feign'd *Chronicles*, feign'd *Lives*, and feign'd *Relations*) is this, that it is either *Narrative*; or *Representative*, or *Allusive*: *Narrative* is a meer imitation of *History*, that in a manner deceives us; but that often it extols matters above belief. *Dramatical* or *Representative*, is as it were a visible *History*; for it sets out the Image of things, as if they were Present; and *History*, as if they were Past. *Parabolical* or *Allusive* is *History* with the Type; which brings down the Images of the understanding to the Objects of Sense.

§ As for *Narrative Poësie*, or if you please *Heroical*, (so you understand it of the Matter, not of the *Verse*) it seems to be raised altogether from a noble foundation; which makes much for the Dignity of mans Nature. For seeing this sensible world, is in dignity inferiour to the soul of Man; *Poësie* seems to endow Humane Nature with that which *History* denies; and to give satisfaction to the Mind, with, at least, the shadow of things, where the substance cannot be had. For if the matter be thoroughly considered; a strong Argument may be drawn from *Poësie*, that a more stately greatness of things; a more per-

fect Order; and a more beautiful variety delights the soul of Man, than any way can be found in Nature, since the Fall. Wherefore seeing the Acts and Events, which are the subject of true *History*, are not of that amplitude, as to content the mind of Man; *Poesie* is ready at hand to feign *Acts* more *Heroical*. Because *true History* reports the successes of business, not proportionable to the merit of Virtues and Vices; *Poesie* corrects it, and presents Events and Fortunes according to desert, and according to the Law of Providence: because *true History*, through the frequent satiety and similitude of Things, works a distast and misprison in the mind of Man; *Poesie* cheereth and refreshes the soul; chanting things rare, and various, and full of vicissitudes. So as *Poesie* serveth and conferreth to Delectation, Magnanimity and Morality; and therefore it may seem deservedly to have some Participation of Divineness; because it doth raise the mind, and exalt the spirit with high raptures, by proportioning the shews of things to the desires of the mind; and not submitting the mind to things, as *Reason* and *History* do. And by these allurements, and congruities, whereby it cherisheth the soul of man; joyned also with consort of Musick, whereby it may more sweetly insinuate it self, it hath won such access, that it hath been in estimation even in rude times, and Barbarous Nations, when other Learning stood excluded.

II. *Dramatical, or Representative Poesie*, which brings the World upon the stage, is of excellent use, if it were not abused. For the Instructions, and Corruptions of the *Stage*, may be great; but the corruptions in this kind abound; the Discipline is altogether neglected in our times. For although in Modern Common-wealths, *Stage-playes* be but esteemed a sport or pastime, unless it draw from the Satyr, and be mordent; yet the care of the Ancients was, that it should instruct the minds of men unto virtue. Nay, wise men and great Philosophers have accounted it, as the Archet, or musical Bow of the Mind. And certainly it is most true, and as it were, a secret of nature, that the minds of men are more patent to affections, and impressions, Congregate, than solitary.

III. But *Poesie Allusive, or Parabolical*, excels the rest, and seemeth to be a sacred and venerable thing; especially seeing Religion it self hath allowed it in a work of that nature, and by it, trafficks divine commodities with men. But even this also hath been contaminate by the levity and indulgence of mens wits about *Allegories*. And it is of ambiguous use, and applied to contrary ends. For it serves for *Obscuration*; and it serveth also for *Illustration*: in this it seems, there was sought a way how to teach; in that an Art how to conceal. And this way of teaching, which conduceth to *Illustration*, was much in use in the Ancient times: for when the inventions and conclusions of humane reason, (which are now common and vulgar) were in those ages strange and unusual; the understandings of men were not so capable of that subtilty, unless such discourses, by resemblances and examples, were brought down to sense. Wherefore in those first ages all were full of *Fables*, and of *Parables*, and of *Ænigmaes*, and of *Similitudes* of all sorts. Hence the *Symboles* of *Pythagoras*; the *Ænigmaes* of *Sphynx*; and the *Fables* of *Æsop*; and the like. So the *Apophthegmes* of the Ancient sages, were likewise expressed by *similitudes*. So *Menenius Agrippa*, amongst

amongst the Romans, a Nation in that Age not learned, repressed a sedition by a Fable. *And as Hieroglyphicks were before letters; so Parables were before Arguments.* So even at this day, and ever, there is and hath been much life, and vigour in *Parables*; because Arguments cannot be so sensible, nor examples so fit. *There is another use of Parabolical Poësy, opposite to the former, which tendeth to the folding up of those things; the dignity whereof, deserves to be retired, and distinguished, as with a drawn Curtain: That is, when the secrets and mysteries of Religion, Policy, and Philosophy are veiled, and invested with Fables, and Parables.* But whether there be any mystical sence couched under the ancient *Fables* of the *Poets*, may admit some doubt: and indeed for our part we incline to this opinion, as to think, that there was an infused mystery in many of the ancient *Fables* of the *Poets*. Neither doth it move us that these matters are left commonly to School-boys, and Grammarians, and so are embased, that we should therefore make a slight judgement upon them: but contrarywise because it is clear, that the *writings* which recite those *Fables*, of all the writings of men, next to sacred writ, are the most ancient; and that the *Fables* themselves, are far more ancient than they (being they are alledged by those writers, not as exco- gitated by them, but as credited and receped before) they seem to be like a thin fine rarified Air, which from the traditions of more Ancient Nations, fell into the Flutes of the Grecians. And because that whatsoever hath hitherto been undertaken for interpretation of these *Parables*, namely by unskilful men, not learned beyond common places, gives us no satisfaction at all; we thought good to refer Philosophy according to *ancient Parables*, in the number of *Deficients*.

§ And we will annex an example or two of this work: not that the matter perhaps is of such moment: but to maintain the purpose of our design. That is this; that if any portion of these works, which we report as *Deficient*, chance to be more obscure than ordinary; that we always propose, either Precepts, or Examples, for the perfecting of that work; lest perchance some should imagine, that our conceit hath only comprehended some light notions of them; and that we like Augures, only measure Countries in our mind, but know not how to set one foot forward thither. As for any other part defective in *Poesy*, we find none; nay rather, *Poesy* being a plant coming, as it were, from the lust of a rank soil, without any certain seed, it hath sprung up, and spread abroad above all other kind of Learning. But now we will propound examples, in number only three; one from things *Natural*; one from *Political*; and one from *Moral*.

The first example of Philosophy, according to Ancient Parables in things Natural. Of the Universe, according to the Fable of Pan.

IV. The Original of *Pan*, the Ancients leave doubtful; for some say that he was the *Son of Mercury*, others attribute unto him a far different beginning: For they affirm that all *Penelopes* suitors had to do with her, and from this promiscuous Act *Pan* descended, a common offspring to them all. There is a third conceit of his birth, not to be passed over: for some report that he was the son of *Jupiter* and *Hybris*, which signifies

Hor.
Hym. Herod. Eur.
con-

contumelie. But however begotten, the *Parca*, they say, were his sisters, who dwelt in a cave under ground; but *Pan* remained in the open Air. The figure and form, Antiquity represented him by, was this. He had on his head a pair of Horns, rising in a sharp, acuminate to heaven; his body shagged, and hairy; his beard very long; his shape bi-formed; above like a man, below like a beast; finish'd with the feet of a Goat. He bare these ensigns of Jurisdiction; in his left hand a pipe of seven Reeds; in his right a sheep hook or a staff, at the upper end crooked or inflexed: he was clad with a Mantle made of a Leopards skin. The dignities and offices attributed unto him were these; that he was the God of Hunters; of Shepherds; and of all Rural Inhabitants: Lo. President Mountains; and next to *Mercury*, the Embassador of the Gods. Moreover he was accounted the Leader, and Commander of the Nymphs; which were always wont to dance the Rounds, and frisk about him: his train were the Satyrs, and the old *Sileni*: He had power also to strike men with terrors, and those especially vain, and superstitious, which are termed *Panick fears*. His *Acts* recorded are not many; the chiefest was, that he challenged *Cupid* at wrestling, in which conflict he had the foil; caught *Typhon* in a net, and held him fast. Moreover when *Ceres* being sad and vex't for the Rape of *Proserpina*, had hid her self, and that all the Gods took pains, by dispersing themselves several ways, to find her out; it was only *Pans* good fortune, as he was hunting, to lite on her, and to give the first intelligence where she was. He presumed also to put it to the trial, who was the better musician he or *Apollo*, and by the judgment of *Midas* was preferred; for which judgment, *Midas* had a pair of Asses ears secretly imp'd to his head. Of the Love-tricks of *Pan*, there is nothing reported, or at least not much; a thing to be wondred at, especially being among a Troop of Gods so profusely amorous. This also is said of him, That he loved the Nymph *Eccho*, whom he took to wife; and one pretty wench more called *Syrinx*, towards whom *Cupid* (in an angry revengeful humour because so audaciously he had challenged him at wrestling) inflamed his desire. So he is reported once to have sollicit'd the Moon apart into the high Woods. Moreover he had no issue (which is a marvel also, seeing the Gods, specially those of the male-kind, were very Generative) only he was the reputed Father of a little Girl called *Iambe*, that with many pretty tales was wont to make strangers merry; and some thought that she was begotten of his wife *Eccho*. The *Parable* seemeth to be this.

§ *Pan* as the very name imports represents, or layeth open the world, or the world of things. Concerning his Original there are only two opinions that go for Currant: For either he came of *Mercury*, that is the *Word of God*, which the holy Scriptures, without all Controversie, affirm; and the Philosophers, such as were the more Divine, saw; or else from the confused seeds of things. For some of the Philosophers held, that the Seeds and Principles of Nature, were even in the substance infinite, hence the opinion, of *Similary Parts primordial*, was brought in; which *Anaxagoras* either invented, or celebrated. Some more acutely and soberly, think it sufficient to salve the variety of Nature, if seeds, the same in substance, be only diversified in form and figure; certain and definite; and placed the rest in the inclosure, and

bosom

Cic. Epist.
ad Act. l. 5.

Claud. de
R. Proser.

Ovid.
Met. XI.

Laert. in
Anaxag.

Laert. in
vitis eo-
zoru.

bosom of the seeds. From this spring, the opinion of Atomes is derived, which *Democritus* maintain'd; and *Lucippus* found out. But others, though they affirm only one Principle of Nature (*Thales* water; *Anaximenes* Air; *Heraclitus* Fire) yet they have defined that Principle, which is one in Act, to be various and dispensable in power; as that wherein the seeds of all natural essences lie hidden. They who have introduced the first Matter every way disarrayed, and unformed, and indifferent to any form (as *Plato* and *Aristotle* did) came to a far nearer, and natural resemblance of the *Figure* of the *Parable*. For they conceiv'd the Matter as a common Courtezan; and the Forms as Suitors. So as all the Opinions touching the beginnings of things come to this point, and may be reduc'd to this distribution; that the world took beginning either from *Mercury*; or from *Penelope*; and all her suitors. The third conceit of *Pans* Original is such, as it seems that the Grecians either by intercourse with the *Ægyptians*; or one way or other, had heard something of the Hebrew mysteries. For it points to the state of the World not considered in the absolute production; but as it stood after the fall of *Adam*, expos'd and made subject to Death and Corruption: For in that state it was, and remains to this day; the off-spring of God; and of Sin, or *Contumely*: For the like sin of *Adam* was a kind of *Contumely*, when he would be like God. And therefore all these three Narrations concerning the manner of *Pans* Birth, may seem true; if they be rightly distinguish'd according to things and times. For this *Pan*, as we now behold and comprehend it, took beginning from the word of God, by the means of confus'd matter, which yet was the work of God, and the entrance of Prevarication, and through it of corruption.

§ The *Destinies* may well be thought the sisters of *Pan*, or *Nature*: for the beginnings, and continuances, and dissolutions; the Depressions also, and eminencies, and labours, and felicities of things; and whatsoever conditions of a particular Nature, are called *Fates* or *Destinies*: which yet, unless it be in some noble individuate subject, as a Man, a City, or a Nation, commonly are not acknowledged. But *Pan*, that is, the *Nature of things*, is the cause of these several states, and qualities in every particular; so as in respect of Individuals, the *Chain* of nature, and the thread of the *Destinies*, is the same. Moreover the Ancients feigned, that *Pan* ever lived in the open Air; but the *Parcé*, or *Destinies*, in a mighty subterraneous Cave; from whence with an infinite swiftness they flew to men: because the nature and common face of the *Universe* is apert, and visible; but the individual *Fates* of Particulars are secret, swift, and suddain. But if *Fate* be taken in a more general acception, as to signify the more notable only, and not every common event; yet in that sense also, the signification is correspondent to the universal state of things; seeing from the order of *Nature*, there is nothing so small which comes to pass without a Cause; and nothing so absolutely great, as to be independent; so that the very *Fabrick* of *Nature* comprehendeth in the lap and bosom thereof, every event, small or great; and by a constant rule discloseth them in due season. Wherefore no marvel if the *Parcé* be brought in, as the legitimate Sisters of *Pan*: For *Fortune* is the daughter of the foolish vulgar; and found favour only with the more unsound Philosophers.

Laert. in vitis,

In Timæ Phys. 3.

Gen. 3.

Senec. in
Epist.

ly the words of Epicurus favour less of Dotage than of prophaneness where he saith; *Præstare, credere fabulam Deorum, quam Fatum asserere*, As if any thing in the frame of nature could be like an Island, which is separate from the connection of the continent. But *Epicurus* (as it is evident from his own words) accommodating, and subjecting his *Natural Philosophy* to his *Moral*; would hear of no opinion which might press and sting the conscience; or any way discalm, and trouble that *Euthymia*, or *Tranquillity of mind*, which he had receiv'd from *Democritus*. Wherefore being more indulgent to the delusions of his own fancyes, than patient of truth; he hath fairly cast off the yoaik, and abandon'd as well the *Necessity of Fate*, as the *Fear of the Gods*. And thus much concerning the Fraternity of *Pan* with the *Destinies*.

Iliad. IX.

§ *Horns* are attributed unto the *World*, broad at the root, sharp at the top; the nature of all things being like a *Pyramis* lessening upwards. For *Individuals* in which the *Base of nature* is spread out; being infinite, are collected into *Species*, which are many also; *Species* again rise up into *Generals*; and these ascending are contracted into more *Universal Generalities*; so that at length, nature may seem to close in a *unity*; which is signified by the *Pyramidal Figure of Pans Horns*. Neither is it to be wondr'd at, that *Pan* toucheth heaven with his *horns*; seeing the *transcendentals of Nature*, or *Universal Ideas*, do in some sort reach things *Divine*. Wherefore *Homers famous Chain of Natural Causes*, tyed to the *foot of Jupiters Chair*, was celebrated. And it is plain, that no man conversant in *Metaphysick*; and those things which in *Nature* are *Eternal*, and *immoveable*; and that hath never so little withdrawn his mind from the fluid ruin of *sublunary things*, which doth not at the same instant fall upon *Natural Theology*: so direct and compendious a passage it is, from the top of the *Pyramis*, to matters *Divine*.

§ The body of *Nature* is elegantly and and lively drawn *Hairy*, representing the beams of things; for beams are, as it were, the hairs or bristles of nature; and every Creature is more or less *Beamy*; which is most apparent in the faculty of seeing; and no less in every magnetic virtue, and operation upon distance; for whatsoever worketh upon any thing upon *Distance*, that may rightly be said to dart forth rays. Moreover *Pans beard* is said to be exceeding long, because the beams or influences of the *Heavens*; and specially of the *Sun*, do operate, and pierce farthest of all; so that not only the surface, but the inward bowels of the earth have been turn'd; subduc'd; and impregnate, with the masculine Spirit of the heavenly influence. And the form of *Pans beard* is the more elegant; because the *Sun*, when his higher part, is shadowed with a *Cloud*, his beams break out in the lower; and so appears to the eye as if he were *bearded*.

§ *Nature* is also most expressively set forth with a *bi-formed Body*; in reference to the Differences between superiour and inferiour bodies. For the one part, by reason of their beauty; and equability; and constancy of motion; and dominion over the earth; and earthly things; is aptly set out by the shape of man: And the other part in respect of their perturbations; and irregular motions; and that they are for most part commanded by the *Celestial*; may be well fitted with the figure of a *bruit beast*. Again this same *bi-formed* description of his *body*, pertains

tains to the participation of the species or kind; for no species of Nature, seems to be simple; but, as it were participating and compounded of two, Essential Ingredients. For Man hath something of a Beast: a Beast something of a Plant: a Plant something of an inanimate Body: and all natural things are indeed bi-formed; and compounded of a superiour and inferiour kind.

§ It is a witty Allegory that same, of the *feet of the Goat*; by reason of the upward tending motions of Terrestrial bodies towards the regions of the air; and of the heaven; where also they become pensile; and from thence are rather forc'd down, than fall down. For the Goat is a mounting Animal, that loves to be hanging upon rocks, and precipices, and steep hills: And this is done also in a wonderful manner, even by those things which are destinated to this inferiour Globe; as may manifestly appear, in *Clouds* and *Meteors*. And it was not without the grounds of reason, that *Gilbert*, who hath written a painful and an experimental work, touching a *Loadstone*, cast in this, doubt, *Whether or no ponderous bodies, after a great distance, and long discontinuance from the earth, may not put off their motion towards the inferiour Globe?* De Magn!

§ The two ensigs which *Pan* bears in his hands, do point, the one at *Harmony*, the other at *Empiry*: for the *Pipe of seven Reeds*, doth evidently demonstrate the consent and *Harmony*; or discordant concord of Nature, which is caused by the motion of the seven wandring stars: for there are no other Errors, or manifest Expatiations in heaven, save those of the seven Planets; which being intermingled, and moderated with the equality of the fixed starrs; and their perpetual and invariable distance one from the other, may maintain and excite both the constancy in specifical; and the fluency of Individual Natures. If there be any lesser Planets which are not conspicuous; or any greater Mutation in heaven (as in many superlunary Comets) they seem but like Pipes, either altogether mute, or only streperous for a time, because their influence either doth not stream down so low as to us; or doth not long interrupt the Harmony of the *seven Pipes of Pan*. And that *Staff of Empiry*, may be excellently applied to the order of Nature, which is partly right, partly crooked. And this staff or rod is especially crooked at the upper end; because all the works of Divine Providence are commonly fetcht about by circuits, and windings; so that one thing may seem to be done, and yet indeed a clean contrary brought to pass; as *the selling of Joseph into Egypt*, and the like. Besides in all wise humane Government, they that sit at the helm, do more happily bring their purposes about, and insinuate more easily things fit for the people, by pretexts, and oblique courses; than by down-right dealing. Nay, (which perchance may seem very strange) in things meerly natural, you may sooner deceive nature, than force her; so improper, and self-impairing are open direct proceedings; whereas on the other side, an oblique and an insinuating way, gently glides along, and compasseth the intended effect. Gen. 45i

§ *Pans Cloak or Mantle*, is ingeniously feigned to be the *skin of a Leopard*, because it is full of spots: so the Heavens are spotted with Stars; the Sea with Islands; the Land with Flowers; and every particular creature also, is for most part garnished with divers colours about the superficies; which is, as it were, a Mantle unto it.

§ The office of *Pan* could be by nothing so conceived; and exprest to the life, as by feigning him to be the *God of Hunters*; for every natural Action, and so by consequence, motion and progression, is nothing else but a *Hunting*. Arts and Sciences have their works; and humane Councils their ends, which they earnestly *hunt* after. All natural things have either their food, as a *prey*; or their pleasure, as a recreation; which they seek for; and that in a quick-discursive, and discerning way,

Virg. B. 2.

*Torva leana Lupum sequitur, Lupus ipse Capellam,
Florentem Cythisum sequitur lasciva Capella.*

§ *Pan* is also said to be the God of the *Country Swains*; because men of this condition lead lives more agreeable unto Nature, than those that live in the Cities and Courts of Princes; where Nature by too much Art is corrupted: so as the saying of the Poet (though in the sense of love) may be here verified:

Mart. Ep.

—— *Pars minima est ipsa puella sui.*

§ *Pan* was held to be *Lord President of the Mountains*; because in high Mountains and Hills Nature lays her self most open, and is most displayed to the view and contemplation of men.

Psal. 19.

§ Whereas *Pan* is said to be (*next unto Mercury*) the *Messenger of the Gods*; there is in that a Divine Mystery contained; because, next unto the word of God, the *Image* of the world proclaims the Divine power and wisdom; as records the sacred Poet, *The Heavens proclaim the Glory of God, and the vast Expansion reports the works of his hands.*

N.L.

§ The *Nymphs*, that is the Souls of living things, give great delight to *Pan*: for the souls of the living are the Minions of the World. The *Conduct* of these Nymphs is with great reason attributed to *Pan*, because these Nymphs, or Souls of the living, do follow their natural disposition, as their guides; and with infinite variety every one of them after the fashion of his Country, doth leap and dance with uncessant motion about her. *Wherefore one of the Modern* very ingeniously hath reduced all the power of the Soul into Motion; noting the misprision, and precipitancy of some of the ancients; who fixing their eyes and thoughts with unadvised haste, upon Memory; Imagination and Reason have past over the *Cogitative faculty* untoucht; which hath a chief part in the order of conception. For he that calleth a thing into his mind, whether by impressiion or recordation, *cogitateth* and *considereth*; and he that imployeth the faculty of his phansie, also *cogitateth*; and he that reasoneth doth in like manner *cogitate* or advise: and to be brief, the Soul of man, whether admonisht by sense, or left to her own liberty; whether in functions of the Intellect, or of the affections and of the will, dances to the musical Airs of the *cogitations*; which is that *tripudiation* of the *Nymphs*.

§ The *Satyres*, and *Sileni*, are perpetual followers of *Pan*, that is old age and youth: for of all natural things, there is a lively, jocund, and (as I may say) a dancing age; and a dull, flegmatick age: the carriages and dispositions of both which ages, may peradventure seem to a
man

man which seriously observes them, as ridiculous and deformed, as those of the *Satyrs*, or of the *Sileni*.

§ Touching the *Terrors* which Pan is said to be the Author of, there may be made a wise instruction; namely, that Nature hath implanted in every living thing, a kind of care and fear, tending to the preservation of its own life, and being; and to the repelling and shunning of all hurtful encounters. And yet Nature knows not how to keep a mean, but always intermixeth vain and empty fears, with such as are discreet and profitable; so that all things (if their insides might be seen) would appear full of *Panick* frights; but specially Men; and above all other men, the people which are wonderfully travailed and tossed with superstition; specially in hard, and formidable, and adverse times; which indeed is nothing else but a *Panick* terror. Nor doth this superstition reign only in the vulgar; but from popular opinions, breaks out some times upon wise men; as Divinely *Epicurus* (if the rest of his discourses touching the Gods, had been conformable to this rule) *Non Deos vulgi negare prophanum; sed vulgi opiniones diis applicare prophanum.*

Laert. in
Epicur.

§ Concerning the audacity of Pan; and his combate upon challenge with *Cupid*; the meaning of it is, that matter wants not inclination, and desire, to the relapsing and dissolution of the World into the old *Chaos*; if her malice and violence were not restrained and kept in order, by the prepotent concord of things; signified by *Cupid*, or the God of Love. And therefore it fell out well for man, by the fatal contexture of the world; or rather the great goodness of the Divine Providence, that Pan was found too weak, and overcome. To the same effect may be interpreted, his catching of *Typhon* in a net: for howsoever there may sometimes happen vast, and unwonted tumors (as the name of *Typhon* imports) either in the Sea, or in the Air, or in the Earth; yet nature doth intangle in an intricate toil, and curb, and restrain, as it were with a chain of Adamant, the excesses and insolencies of these kind of Bodies.

§ As touching the finding out of *Ceres*, attributed to this God, and that as he was hunting and thought little of it, which none of the other Gods could do, though they did nothing else but seek her, and that with diligence; it gives us this true and grave admonition; that is, that men do not expect the invention of things necessary for life and manners, from abstract Philosophies, as from the greater Gods; though they should apply themselves to no other study; but only from Pan, that is, from discreet experience, and from the universal observation of the things of the World; where oftentimes by chance (and as it were going a hunting) such inventions are lited upon. For the most profitable inventions, are the off-spring of experience; and, as it were, certain Donatives distributed to men by chance.

§ His contestation with *Apollo* about *Musick*; and the event thereof, contains a wholesome instruction, which may serve to restrain mens reasons, and judgements, with the reins of sobriety, from boasting and and glorying in their gifts. For there seems to be a two-fold *Harmony* or *Musick*; the one of Divine Wisdom; the other of Humane Reason; for, to humane judgement, and as it were, the ear of mortals; the administration of the world; and of Creatures therein; and the

Addas &
Incompar.
Sandifsi
comment.
ad Ovid.
Met. X.

more secret judgements of God, found somewhat hard and harsh: Which rude ignorance, albeit it be well proclaim'd by Asses ears; yet notwithstanding these ears are secret, and do not openly appear; neither is it perceived, or noted as a Deformity by the Vulgar.

§ Lastly, it is not to be wondered at, that there is nothing attributed unto *Pan* concerning *Loves*, but only of the marriage with *Eccho*; for the world doth enjoy it self, and in it self all things else. Now he that loves would enjoy something: but where there is enough, there is no place left to desire. Wherefore there can be no wanton love in *Pan*, or the *World*, nor desire to obtain any thing, (seeing it is contented with it self) but only *Speeches*; which (if plain) are pronounced by the Nymph *Eccho*, a thing not substantial, but only vocal; if more accurate by *Syringa*; that is, when *words* and *voices* are regulated by certain numbers; Poetical, or Oratorical, as by musical measures. It is an excellent invention, that amongst *speeches* and *voices*, only *Eccho* should be taken in marriage by the *World*; for that alone is true *Philosophy*, which doth faithfully render the very words of the world; and which is written, no otherwise, than the world doth dictate; and is nothing else than the image and reflection thereof; and addeth nothing of its own, but only iterates, and resounds.

§ And whereas *Pan* is reported to have called the *Moon* aside into a high-shadowed wood; seems to appertain to the convention between fence and heavenly, or divine things: For the case of *Endymion*, and *Pan* are different; the *Moon* of her own accord came down to *Endymion*, as he was asleep: For that *Divine illuminations* oftentimes gently slide into the understanding, cast asleep, and retired from the senses; but if they be called, and sent for by *Sense*, as by *Pan*; then they present no other light than that,

*Quale sub incertam lunam sub luce malignâ
Est iter in sylvis.—*

It belongs also to the sufficiency, and perfection of the world, that it begets no issue: For the world doth generate in respect of its parts; but in respect of the whole, how can it generate, seeing there is no body beyond the bounds of the Universe? As for that *Girl Lambe*, father'd upon *Pan*, certainly it is a wise adjection to the fable; for by her are represented those vain and idle *Paradoxes* concerning the nature of things, which have been frequent in all ages, and have filled the world with novelties, for the matter, fruitless; spurious for the Race; by their garrulity, sometimes pleasant; sometimes tedious and unreasonable.

An other example of Philosophy according to Ancient Parables
in Politicks of War, according to the
Fable of *Perseus*.

Herod.
Polym.
Ovid.
Met. 4.

V. *Perseus* a Prince of the East is reported to have been employed by *Pallas* for the destroying of *Medusa*, who was very infestious to the Western parts of the World, about the utmost Coasts of *Hiberia*. A
Monster

Monster huge and fierce, of an aspect so dire and horrid, that with her very looks she turn'd men into stones. Of all the *Gorgons* this *Medusa* alone was mortal, the rest not subject to death: *Percus* therefore preparing himself for this noble enterprize, had Arms and gifts bestowed on him by three of the Gods: *Mercury* gave him wings fitted for his feet not his arms; *Pluto* a helmet; *Pallas* a shield, and a Looking-glass. *Notwithstanding* although he was thus well furnisht, he went not directly to *Medusa*, but turned into the *Greae*, which by the Mothers side were sisters to the *Gorgons*. These *Greae* from their birth were hoary-headed, resembling old women. They had but one only eye, and one tooth among them all; both which as they had occasion to go abroad, they were wont in course to take with them, and at their return to lay them down again. This eye and tooth they lent to *Percus*; so finding himself completely appointed for the Action designed, with winged speed he marches towards *Medusa*. Her he found sleeping; yet durst not venture himself a front to her aspect, if she should chance to awake; but turning his head aside, beholding her by reflection in *Pallas* her *Mirror*, and so directing his blow, cut off her head; from whose blood gushing out, instantly there emerged *Pegasus* the flying Horse. Her head thus smitten off, *Percus* transfers and inserts into *Pallas* her shield; which yet retained this virtue, that whosoever lookt upon it, as one blasted or Plannet-struck, he should suddenly become senseless.

§ This Fable seems to be devised for direction to the preparation, and order that is to be observed in making of war. And first the undertaking of any war ought to be as a commission from *Pallas*; certainly not from *Venus*, (as the Trojan war was) or some such slight motive; because the Designs of War, ought to be grounded upon solid counsels. Then for the choice of War; for the nature and quality thereof; the Fable propounds three grave and wholsome Precepts. The first is, that a Prince do not much trouble himself about the conquest of neighbour Nations: nor is the way of enlarging a Patrimony, and an Empire, the same; for in the augmentation of private possessions, the vicinity of Territories is to be considered; but in the amplification of publick Dominions, the occasion and facility of making war, and the fruit to be expected, ought to be instead of propinquity. Therefore *Percus*, though an Eastern Prince, makes the expedition of his War a far off, even in the remotest parts of the Western World. There is a notable president of this Case, in the different manner of warring, practised by two Kings, the Father and the Son, *Philip* and *Alexander*. For *Philip* warred upon Borderers only, and added to the Empire some few Cities, and that not without great contention and danger; who many times, but especially in a *Theban* war, was brought into extreme hazard: But *Alexander* carried the Actions of his War a far off; and with a prosperous boldness undertook an expedition against the *Perstian*; conquered infinite Nations; tired, rather with travel than war. This point is farther cleared in the propagation of the *Roman Empire*, what time their conquests towards the *West* scarce reacht beyond *Liguria*, did yet in the *East*, bring all the Provinces, as far as the mountain *Taurus*, within the compass of their Arms and command. So *Charles* the Eighth, King of *France*, finding the War of *Britain* (which afterward was compounded by marriage)

Paus.
Strab.Sandys
Com-
ment. in
Ovid,
Met. 4.
Renovard.Plut. in
Alex. Id.
de Fort.
Alex.Hist. Fr. in.
Ser. 102.
lii.

not

not so feasible, pursued his enterprize upon *Naples*, which he accomplisht with wonderful facility and felicity. Certainly wars made upon Nations far off, have this advantage, that they are to fight with those who are not practised in the discipline and Arms of the Aggressor: but in a war made upon Borderers, the case is otherwise. Besides the preparation for such an expedition is commonly better appointed; and the terror to the enemy from such a bold and confident enterprize, the greater. Neither can there usually be made, by the enemy to whom the war is brought so far off, any retaliation or reciprocal invasion; which in a war upon borderers often falls out. But the chief point is, that in subduing a neighbour state, the election of advantages is brought to a streight; but in a foreign expedition, a man may turn the race of the war at pleasure, thither, where military discipline is most weakned; or the strength of the Nation much wasted and worn; or Civil discords are seasonably on foot; or such like opportunities present themselves.

§ *The second precept is, that the motives of war be just; and Religious; and Honourable; and Plausible:* for that begets alacrity, as well in the Souldiers that fight, as in the people that afford pay: it draws on and procureth aids; and hath many other advantages besides. Amongst the just grounds of war, that is most favourable, which is undertaken for the extirpation of Tyrants; under whom the people loose their courage, and are cast down without heart and vigour, as in the sight of *Medusa*: which kind of heroick Acts, procured *Hercules* a divinity amongst the Gods. Certainly it was a point of Religion amongst the Romans, with valour and speed, to aid and succour their confederates and allies, that were any way distressed. So just vindictive wars have for most part been prosperous; so the war against *Brutus* and *Cassius*, for the revenge of *Cæsars* death; of *Severus* for the death of *Pertinax*; of *Junius Brutus* for the revenge of the death of *Lucretia*: and in a word, whosoever relieve and revenge the calamities and injuries of men, bear arms under *Perseus*.

§ *The third precept is, that in the undertaking of any war, a true estimate of the forces be taken; and that it be rightly weighed whether the enterprize may be compass and accomplisht; lest vast and endless designs be pursued.* For amongst the *Gorgons*, by which war is represented, *Perseus* wisely undertook her only, that was mortal; and did not set his mind upon impossibilities. Thus far the fable instructs touching those things that fall in deliberation, about the undertaking of a war; the rest pertain to the war it self.

§ *In war those three gifts of the Gods do most avail, so as commonly they govern, and lead fortune after them: for Perseus received speed, from Mercury; concealing of his Counsels, from Orcus; and Providence from Pallas.* Neither is it without an Allegory, and that most prudent, that those wings of speed in dispatch of affairs (for quickness in war is of special importance) were fastened unto his heels, and not unto his Armholes; to his feet, and not to his shoulders; because celerity is required, not so much in the first aggressions and preparations; as in the pursuit and the succours that second the first assaults: for there is no errors in war more frequent, than that prosecution, and subsidiary forces, fail to answer the alacrity of the first onsets. Now the *Helmet of Pluto*, which hath power to make men invisible, is plain in the Moral: for the secret-

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Cic. 1. de
Off.
Bacon de
jure Belli
cont.
Hisp.

Ovid.
Met. IX.
Sandifii.
Com-
ment.

Tacit.
Herodian.
&c.

Fra. Ba-
con ut su-
pra.

ting of Counsels next to *Celerity*, is of great moment in War; whereof *Celerity* it self is a great part; for *speed*, prevents the disclosure of *Counsels*. *It pertains to Pluto's Helmet*, that there be one General of the Army in War, invested with absolute authority; for consultations communicated with many, partake more of the *Plumes of Mars*, than of the *Helmet of Pluto*. To the same purpose are various pretensions, and doubtful designations, and emissary reports; which either cast a cloud over mens eyes, or turn them another way, and place the true aims of *Counsels* in the dark: for diligent and diffident cautions touching Letters, Ambassadors, Rebels, and many such like Provisoers, adorn and begirt the *Helmet of Pluto*. *But it importeth no less*, to discover the *Counsels* of the enemy, than to conceal their own: wherefore to the *Helmet of Pluto*, we must joyn the *Looking-glass of Pallas*, whereby the strength, the weakness, the secret abettors, the divisions and factions, the proceedings and counsels of the enemy may be discerned and disclosed. *And because the casualties of war are such*, as we must not put too much confidence, either in the concealing our own designs, or the dissecreting the designs of the enemy; or in *celerity* it self; we must especially take the *Shield of Pallas*, that is of *Providence*; that so, as little, as may be, be left to *Fortune*. Hitherto belong the sending out of *Espials*, the fortification of Camps, (which in the Military Discipline of this latter age, is almost grown out of use: for the Camps of the Romans were strengthened as if it had been a City, against all adverse events of War) a settled and well ordered Army, not trusting too much to the light Bands, or to the Troops of Horsemen, and whatsoever appertains to a substantial and advised defensive War: seeing in Wars the *Shield of Pallas* prevails more than the *sword of Mars*,

§ *But Perseus* albeit he was sufficiently furnished with forces and courage, yet was he to do one thing of special importance, before he enterprized the Action; and that was, to have some *intelligence with the Greæ*. These *Greæ* are *treasons*, which may be termed the *sisters of War*; not descended of the same stock, but far unlike in nobility of Birth: so Wars are Generous and Heroical; but *Treasons* base and ignoble. Their description is elegant, for they are said to be gray-headed, and like old women from their birth; by reason that Traitors are continually vexed with cares and trepidations. But all their strength, before they break out into open Rebellions, consists either in an *eye*, or in a *tooth*, for every faction alienated from any state, hath an *evil eye*, and *bites*. Besides, this *eye and tooth* is, as it were, common; for whatsoever they can learn or know, runs from hand to hand amongst them. And as concerning the *tooth*, they do all bite alike, and cast the same scandals; so that hear one, and you hear all. *Perseus* therefore was to deal with these *Greæ*, and to engage their assistance for the loan of their *Eye and Tooth*: their *Eye* for Discoveries; their *Tooth* for the sowing and spreading of Rumors; and the stirring up of envy; and the troubling of the minds of men. *After all things are well, and preparedly disposed for war*; that is first of all to be taken into consideration, which *Perseus* did, that *Medusa may be found asleep*: for a wise Captain ever assaults the enemy unprepared; and when he is most secure. *Lastly, in the very action and heat of war*, the looking into *Pallas* her *Glass*, is to be put in practice: for most men, before it come to the push, can with diligence

and

and circumspection dive into, and discern the state and designs of the enemies; but in the very point of danger, either are amazed with fear; or in a rash mood fronting dangers too directly, precipitate themselves into them; mindful of victory; but forgetful of evasion, and retreat. Yet neither of these should be practised, but they should look with a reversed countenance into *Pallas Mirror*; that so the stroke may be rightly directed, without either terror or fury,

§ After the war was finished, and the victory won, there followed two Effects; *The procreation and raising of Pegasus*; which evidently denotes Fame, that flying through the world proclaims victory; and makes the remains of that war easy and feasible. *The second is the bearing of Medusa's head in his shield*; because there is no kind of defence for excellency comparable to this: For one famous and memorable Act prosperously enterpriz'd and atchieved; strikes the Spirit of insurrection in an enemy, into an amazing terror; and blasts envy her self into an astonishment and wonder.

The third Example of Philosophy according to Ancient Parables
in *Morality. Of Passion according to the Fable
of Dionysus.*

Orph. in
Hym.
Ov. Met. 3.
Eurip. in
Bacc.
Nonn. in
Dion.

VI *They say that Semele Jupiters Minion*, having bound her Paramour, by an inviolable oath, to grant her one request which she would ask, desir'd that he would accompany her in the same form, wherein he came into *Juno*: So she perisht with lightning. But the *Infant* which she bare in her Womb, *Jupiter* the Father took out, and sowed it in his thigh till the months were accomplisht, that it should be born. *This burden* made *Jupiter* somewhat to limp; wherefore the child, because it vext and pinched *Jupiter*, while it was in his flank, was called *Dionysus*. *Being born* he was committed to *Proserpina* for some years to be nurs't; and being grown up, he had such a maiden face, as that a man could hardly judge whether it were a boy, or a girl. *He was dead also*, and buried for a time, but afterwards revived. *Being but a youth* he invented the planting and dressing of vines; the making and use of wine; for which becoming famous, and renowned, he subjugated the world even to the utmost bounds of *India*. *He rode in a Chariot drawn with Tygers*. There danced about him certain deformed *Hobgoblins* called *Cobali*; *Acratus* and others; yea, even the *Muses* also were some of his followers. *He took to wife Ariadne*, forsaken and left by *Theseus*. *The tree sacred unto him was the Ivy*. He was held the *Inventor* and *Institutor* of *sacrifices* and *Ceremonies*, but such as were frantick and full of corruptions and cruelties. *He had likewise power to strike men with madness*: For it is reported that at the Celebration of his *Orgyes*, two famous *Worthies*, *Pentheus* and *Orpheus*, were torn in pieces by certain mad-enraged women; the one because he got upon a tree, out of a curiosity to behold their *Ceremonies* in these *Sacrifices*; the other because he played sweetly and cunningly upon the harp. *And for the Gests* of this God, they are in a manner the same with *Jupiters*.

Paus. in
Bæot.
Eurip. in
Bac.

V. Com-
ment. in
Ovid. Met.
3. G. San-
ctis. Re-
n. J. vard.

§ *There is such excellent Morality coucht in this fable*, as Moral Philosophy affords not better. *For under the Person of Bacchus is described the nature of Passion; or of Affections and Perturbations of the mind.* First there-

therefore touching the birth and parentage of *Passion*; the beginning of all *Passion*, though never so hurtful, is nothing else than *good Apparent*: For as the Mother of virtue is *good Existent*; so the Mother of *Passion* is *good Apparent*. The one of these (under which Person, the soul of man is represented) is *Jupiters* lawful wife; the other his *Concubine*: which yet affecteth the honour of *Juno*, as *Semele* did. *Passion* is conceiv'd in an unlawful desire, rashly granted, before rightly understood, and judg'd: And after when it begins to grow fervent, the *Mother* of it, which is the Nature and Species of *Good*, by too much inflammation is destroyed and perisheth. The proceeding of *Passion* from the first conception thereof is after this manner: It is nourisht and concealed by the mind of man, (which is the Parent of *Passion*;) specially in the inferiour part of the mind, as in the thigh; and so vexeth, and pulleth, and depresseth the mind; as those good determinations and actions; are much hindred and lamed thereby: but when it comes to be confirmed by consent and habit; and breaks out into Act, that it hath now, as it were, fulfill'd the months, and is brought forth and born; first, for a while it is brought up by *Proserpina*; that is, it seeks corners and secret places, and lurks, as it were, under ground; until the reigns of shame and fear laid aside, and boldness coming on; it either assumes the pretext of some virtue, or becomes altogether impudent and shameless. And it is most true that every vehement *Passion* is of a doubtful sex; being masculine in the first motion; but feminine in prosecution. It is an excellent fiction, that of dead *Bacchus*, reviving; for *Passions* do sometimes seem to be in a dead sleep, and extinct; but we must not trust them, no though they were buried: For let there be but matter and opportunity offer'd, they rise again.

§ *The invention of the Vine is a wise Parable*; for every affection is very quick and witty in finding out that which nourisheth and cherisheth it; and of all things known to men, *wine is most powerful and efficacious to excite and inflame passions*; of what kind soever; as being, in a sort, a common incentive to them all.

§ *Again, affection or passion is elegantly set down to be a subduer of Nations, and an undertaker of infinite expedition*: For *desire* never rests content with what it possesseth; but with an infinite and unsatiabable appetite still covets more; and harkens after a new purchase.

§ *So Tigers Stable by affections; and draw their Chariot*: For since the time that *Affection* began to ride in a Coach; and to go no more a foot; and to captivate *Reason*; and to lead her away in triumph; it grows cruel; unmanageable and fierce, against whatsoever withstands or opposeth it.

§ *And it is a pretty device, that those ridiculous Demons, are brought in dancing about Bacchus his Chariot*: For every vehement affection doth cause in the eyes, face, and gesture, undecent and subseeming, apish, and deformed motions; so that they who in any kind of *Passion*, (as in anger, arrogance, or love,) seem glorious and brave in their own eyes; do appear to others mishapen and ridiculous.

§ *The Muses are seen in the company of passion*: and there is almost no affection so depraved and vile, which is not soothed by some kind of *Learning*: And hercin the indulgence and arrogancy of *Wits* doth exceedingly

ceedingly derogate from the Majesty of the Muses ; that whereas they should be the Leaders and Ancient-bearers of life ; they are become the foot-pages, and buffoons to lusts and vanity.

§ *Again, where Bacchus is said to have engaged his affections on her that was abandoned and rejected by another :* it is an Allegory of special regard ; for it is most certain, that *passion* ever seeks and sues for that which experience hath relinquish't ; and they all know, who have paid dear for serving and obeying their *lusts* ; that whether it be honour, or riches, or delight, or glory, or knowledge, or any thing else, which they seek after ; they pursue things cast off, and by divers men in all ages, after experience had, utterly rejected and repudiate.

§ *Neither is it without a Mystery , that the Ivy was sacred to Bacchus ;* the application holds two ways : *First*, in that the *Ivy* remains green in Winter ; *Secondly*, in that it creeps along, imbraceth, and advanceth it self over so many divers bodies, as trees, walls, and edifices. *Touching the first*, every *passion* doth through renitence and prohibition, and as it were, by an *Antiperistasis*, (like the *Ivy* through the cold of Winter) grow fresh and lively. *Secondly*, every predominant affection in mans soul, like the *Ivy*, doth compass and confine all Humane Actions and Counsels ; neither can you find any thing so immaculate and inconcern'd, which affections have not tainted and clinched, as it were, with their tendrels.

§ *Neither is it a wonder, that superstitious ceremonies were attributed unto Bacchus,* seeing every giddy-headed humour keeps, in a manner, Revel-rout in false Religions ; so that the pollutions and distempers of Hereticks, exceed the Bacchanals of the Heathens ; and whose superstitions have been no less barbarous, than vile and loathsome. *Nor is it a wonder, that madness is thought to be sent by Bacchus,* seeing every affection in the Excess thereof, is a kind of *short fury* ; and if it grow vehement and become habitual ; it commonly concludes in *Madness*.

§ *Concerning the rending and dismemb'ring of Pentheus and Orpheus, in the celebration of the Orgies of Bacchus ;* the Parable is plain. For every prevalent affection is outrageous against two things ; *whereof the one is curious enquiry into it ; the other free and wholesome admonition.* Nor will it avail, though that *inquiry* was only to contemplate and to behold, as it were going up into a tree, without any malignity of mind ; nor again, though that *admonition* was given with much art and sweetness ; but howsoever, the *Orgies of Bacchus* cannot endure either *Pentheus* or *Orpheus*.

§ *Lastly, that confusion of the persons of Jupiter and Bacchus,* may be well transferred to a Parable ; seeing noble and famous Acts, and remarkable and glorious merits, do sometimes proceed from virtue and well ordered reason, and magnanimity ; and sometimes from a secret affection, and a hidden passion ; howsoever both the one and the other, so affect the renown of Fame and Glory ; that a man can hardly distinguish between the Acts of *Bacchus* ; and the Gests of *Jupiter*.

But we stay too long in the *Theatre* ; let us now pass on to the *Palace of the Mind* ; the *entrance* whereof we are to approach with more veneration and attention.

THE
 Third Book
 OF
 FRANCIS L. VERULAM
 VICOUNT S^t ALBAN,
 OF THE
 Dignity and Advancement
 OF
 LEARNING.

To the KING.

CHAP. I.

- I. *The Partition of Sciences, into Theology and Philosophy. II. Partition of Philosophy into three Knowledges. Of God ; of Nature ; of Man. III. The Constitution of Philosophia Prima, or Summary Philosophy ; as the Commune Parent of all.*



ALL History (Excellent King) treads upon the Earth, and performs the office of a Guide, rather than of a light ; and *Poesie* is, as it were, the dream of Knowledge ; a sweet pleasing thing, full of variations ; and would be thought to be somewhat inspired with Divine Rapture ; which Dreams likewise pretend : but now it is time for me to awake, and to raise my self from the Earth, cutting the liquid Air of *Philosophy* and *Sciences*.

I. Knowledge is like waters ; some waters descend from the Heavens, some spring from the Earth, so the Primary Partition of Sciences, is to be derived from their fountains ; some are seated above ; some are here beneath. For all knowledge proceeds from a twofold information ; either from *divine inspiration*, or from *external sense* ; As for that knowledge which infused by instruction ; that is Cumulative, not Original ; as it is in waters, which besides the Head-springs, are encreased by the

reception of other Rivers that fall into them. *Wherefore we will divide Sciences, into Theology; and Philosophy; by Theology we understand Inspired or Sacred Divinity; not Natural, of which we are to speak anon. But this Inspired Theology, we reserve for the last place, that we may close up this work with it; seeing it is the Port and Sabbath of all Humane Contemplations.*

II. *The Object of Philosophy is of three sorts; God; Nature; Man; so likewise there is a Triple Beam of things; for Nature darts upon the understanding with a direct Beam; God because of the inequality of the medium, which is the Creature, with a refract Beam; and man represented and exhibited to himself, with a beam reflex.* Wherefore Philosophy may fitly be divided into three knowledges; the knowledge of God; the knowledge of Nature; and the knowledge of Man.

III. And because the Partition of Sciences are not like several lines that meet in one angle; but rather like branches of trees that meet in one stemm, which stemm for some dimension and space is entire and continued, before it break, and part it self into arms and boughs; therefore the nature of the subject requires, before we pursue the parts of the former distribution, to erect and constitute *one universal Science*, which may be the mother of the rest; and that in the progress of Sciences, a Portion, as it were, of the common high-way may be kept, before we come where the ways part and divide themselves. *This Science we stile Primitive Philosophy or Sapience, which by the Ancients was defin'd to be, The Science of things divine and humane. To this Science none of the rest is opposed, being it is differenced from other Knowledges, rather in the limits of latitude; than in the things and subject; that is, handling only the tops of things. Whether I should report this as Deficient, I stand doubtful, yet I think I very well may. For I find a certain kind of Rhapsody, and confus'd masse of knowledge, namely of Natural Theology; of Logick: of particular parts of Natural Philosophy (as of the Principles of Nature, and of the soul) composited and compiled: and by the height of terms, from men who love to admire themselves advanced, and exalted, as it were, to the vertical point of Sciences. But we, without any such stately loftiness, would only have thus much, That there might be design'd a certain Science, that should be the receptacle of all such Axioms, as fall not within the compass of any special part of Philosophy; but are more common to them all, or most of them.*

§ That there are many of this kind, needs not to be doubted. For example, *Si inaequalibus equalia addat; omnia erunt inaequalia;* is a rule in the Mathematicks: and the same holds in the Ethicks concerning *Attributive Justice*; for in *Justice Expletive*, the reason of equity requires, *That equal Portion be given to unequal Persons; but in Attributive, unless unequal be distributed unto unequal, it is a great injustice. Quae in eodem tertio conveniunt, & inter se conveniunt;* is likewise a rule taken from the Mathematicks; but so potent in *Logick* also, as all *Syllogisms* are built upon it. *Natura se potissimum prodit in minimis,* is a rule in *Natural Philosophy* so prevalent, that it hath produced *Democritus* his *Atomes*; yet hath *Aristotle* made good use of it in his *Politicks*, where he raiseth his contemplations of a City or State, from the Principles of a Family. *Omnia mutantur nil interit;* is also a maxime in *Natural Philosophy* thus expressed, that the *Quantum* of Nature is neither dimi-

Euclid.
El. lib. 1.

Euclid. El.
Arif.

Arif. de
Part. Ani-
mal. 1.

Polit. 1.

nisht nor augmented: The same is applied to Natural Theology thus varied; *That they are the works of the same Omnipotence, to make nothing somewhat; and to make somewhat nothing;* which the Scriptures likewise testify: *I have found by experience that all the works of God do persevere for ever: nothing can be put unto them, nor any thing taken from them.* *Interitus rei arcetur per reductionem ejus ad Principia,* is a rule in Natural Philosophy; the same holds also in the Politicks (as Machiavel hath wisely observed) because the means which must specially preserve States from ruine, are commonly nothing else than reformation, and a reduction of them to their Ancient customes. *Putredo serpens magis contagiosa est quam matura;* is a ground in Natural Philosophy; the same is an excellent Maximé in Moral Philosophy; because professedly wicked, and desperately impious persons, do not corrupt publick manners so much, as they do, who seem to have some soundness and goodness in them; and are diseased but in part. *Quod conservativum est formæ majoris, id activitate potentius;* is a ground in natural Philosophy: for it makes for the conservation of the fabrick of the universe; that the chain and contexture of nature, be not cut asunder or broken; and that there be not *vacuum*, as they call it, or *empty discontinuity* in the world; and that heavy bodies should be congregate and assembled to the massy pile of the earth, makes for the conservation of the Region of gross and compacted natures: wherefore the first and universal motion commands, and subdues, the latter and more particular. *The same rule* holds in the *Politicks*, for those things which conduce to the conservation of the whole *Body Politick* in its entire nature and absence, are more potent, than those things are, which make only for the well-fare and existence of particular members, in a State or Civil Government. *So the same rule* takes place in Theology; for amongst Theological virtues, *Charity*, a virtue most communicative excells all the rest. *Augetur vis agentis per anti-peristasin contrarii:* is a rule in Natural Philosophy; the same works wonders in Civil states, for all faction is vehemently moved, and incensed at the rising of a contrary faction. *Tonus discors in concordem actutum desuens, concentum commendat:* *To fall suddenly from a Discord upon a Concord commends the Air:* it is a rule in Musick: the like effect it worketh in Morality, and the Affections. *That Trope of Musick, to fall or slide softly, from the close or cadence (as they call it) when it seemed even to touch it, is common with the Trope of Rhetorick, of deceiving expectation.* The Quavering upon a stop in Musick, gives the same delight to the ear; that the playing of light upon the water, or the sparkling of a Diamond gives to the eye.

Eccles. 3;

Disc. sopra la. 1.
Dec. di
liu. lib. 3.
Avicenna
Hippoc.
Epid.Arist. ast.
cubi.Arist. Meteor. 1.
Problem.
§. 11.V. Boet. de
Musica.
&c.

Splendet tremulo sub lumine Pontus.

Organa sensuum cum Organis reflectionum conveniunt: This hath place in *Perspective Art*; for the eye is like to a Glass, or to waters: and in *Acoustick Art*; for the Instrument of hearing is like to the straits and winding within a Cave. These few instances may suffice for examples. And indeed the Persian Magick, so much celebrated, consists chiefly in this; *to observe the correspondency in the Architectures, and Fabricks of things Natural; and of things Civil.* Neither are all these whereof we have spoken, and others of like nature *meer Similitudes* only, as men of narrow obser-

Virg. Æn.

Alhaz.
Opt. 4. Vitello. Pa.
sim.

obser-

observation perchance may conceive; but one & the very same footsteps, and seals of Nature, printed upon several subjects or matters. *This kind of Science*, hath not been hitherto seriously handled: You may peradventure find in the Writings coming from the pens of the profounder sorts of wits, Axioms of this kind, thinly and sparsedly inserted, for the use and explication of the Argument which they have in hand; but a complete body of such *Maximes*, which have a *Primitive and Summary force and efficacy in all Sciences*, none yet have compos'd; being notwithstanding a matter of such consequence, as doth notably conduce to the unity of Nature; which we conceive to be the office and use of *Philosophia Prima*.

§ There is also an other part of this, *Primitive Philosophy*, which, if if you respect *terms*, is Ancient; but, if the *matter* which we design, is new, and of an other kind; and it is an Inquiry concerning the *Accessory Condition of Entities*, which we may call *Transcendents*; as *Multitude*, *Paucity*; *Similitude*; *Diversity*; *Possible*, and *Impossible*; *Entity*; *Non-entity*; and the like. For being *Transcendents* do not properly fall within the compass of *Natural Philosophy*; and that *Dialectical* dissertation about them is rather accommodated to the *Forms of Argumentation*, than the *Nature of things*; it is very convenient that this *Contemplation*, wherein there is so much dignity and profit, should not be altogether deserted; but find at least some room in the *Partitions of Sciences*: but this we understand to be perform'd far after an other manner, than usually it hath been handled. For example, no man who hath treated of *Paucity* or *Multitude*, hath endeavour'd to give a reason, *Why some things in Nature are and may be so numerous and large; others so few and little*. For certainly it cannot be, that there should be in nature as great store of Gold, as of Iron; as great plenty of Roses, as of Grass; as great variety of determin'd and specifick Natures, as of imperfects, and non-specificates. So none in handling *Similitude* and *Diversity*, hath sufficiently discovered the Cause, why betwixt divers species there should, as it were perpetually, be interposed, *Participles of Nature*, which are of a doubtful kind and reference; as *Moss* betwixt Putrefaction and a Plant: *Fishes* which adhere and move not, betwixt a Plant and a living Creature: *Rats* and *Mice*, and other vermine between living Creatures generated of Putrefaction, and of seed: *Bats* or *Flitter-mise* between Birds and Beasts; *Flying Fishes*, now commonly known, between Fowls and Fish: *Sea-calves* between Fishes and four-footed Beasts; and the like. Neither hath any made diligent inquiry of the Reason how it should come to pass, *being like delights to unite to like*, that Iron draws not Iron, as the Loadstone doth; nor Gold allures and attracts unto it Gold, as it doth Quicksilver. Concerning these and the like adjuncts of things, there is, in the common Disceptation about *Transcendents* a deep silence: For men have pursued *Niceties of Terms*, and not *subtilties of things*. Wherefore we would have this *Primitive Philosophy* to contain a substantial and solid inquiry of these *Transcendents*, or *Adventitious Conditions of Entities*, according to the *Laws of Nature*, and not according to the *Laws of Words*. So much touching *Primitive Philosophy*, or *Sapience*, which we have justly refer'd to the Catalogue of *Deficients*.

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CHAP. II.

I. Of Natural Theologie: § Of the Knowledge of Angels, and of Spirits; which are an Appendix thereof.

THe *Commune Parent* of Sciences being first placed in its proper Throne like unto *Berecynthia*, which had so much heavenly Issue.

Omnes Cœlicolæ, omnes supera alta tenentes.

Virg. *Æn.*
6. i.

We may return to the former Division of the three Philosophies, *Divine, Natural and Humane.*

I. For *Natural Theology*, is truly called *Divine Philosophy*: And this is defined to be a Knowledge, or rather a spark and rudiment of that Knowledge concerning God; such as may be had by the light of Nature; and the Contemplation of the Creature: which Knowledge may be truly termed *Divine* in respect of the Object; and *Natural* in respect of the Light. The Bounds of this Knowledge are truly set forth, that they may extend to the Confutation and Conviction of Atheism; the Information of the Law of Nature; but may not be drawn out to the Confirmation of Religion. *Therefore there was never Miracle wrought by God to convert an Atheist, because the light of Nature might have led him to confess a God; but Miracles are designed to convert Idolaters, and the Superstitious, who have acknowledged a Deity, but erred in his Adoration; because no light of Nature extends to declare the Will and true Worship of God.* For as works do shew forth the power and skill of the workman, but not his Image: So the works of God, do shew the Omnipotency and Wisdom of the Maker; but no way express his Image. And in this the Heathen opinion differs from the sacred Truth; For they defined the World to be the Image of God; Man the Image of the World; but Sacred Scriptures never vouchsafed the World that honour, as any where to be stiled the Image of God, but only, *the works of his hands*: but they substitute man, *the immediate Image of God*. Wherefore, that there is a God; that he reigns and rules the World; that he is most potent, wise, and provident: that he is a Rewarder, a Revenger; that he is to be adored; may be demonstrated and evinced even from his works; and many wonderful secrets touching his Attributes, and much more touching his Regiment and dispensation over the world, may likewise with sobriety be extracted, and manifested out of the same works; and is an Argument hath been profitably handled by divers. *But out of the contemplation of Nature, and out of the Principles of Humane Reason, to discourse, or earnestly to urge a point touching the Mysteries of Faith; and again, to be curiously speculative into those secrets, to ventilate them; and to be inquisitive into the manner of the Mystery, is, in my judgement not safe: Da Fidei quæ Fidei sunt.* For the Heathens themselves conclude as much, in that excellent and divine Fable of the golden Chain, *That Men and Gods*

Psal. 8.
Gen. 1.

Homer
Iliad. 9.

were not able to draw Jupiter down to the Earth; but contrariwise Jupiter was able to draw them up to Heaven. Wherefore he laboureth in vain, who shall attempt to draw down heavenly Mysteries to our reason; it rather becomes us to raise and advance our reason to the adored Throne of Divine Truth. And in this part of Natural Theologie, I am so far from noting any deficiency, as I rather find an excess; which to observe I have somewhat digressed, because of the extreme prejudice, which both Religion and Philosophy have received thereby; as that which will fashion and forge a heretical Religion, and an imaginary and fabulous Philosophy.

Coloff. 2.

§ But as concerning the nature of Angels and Spirits, the matter is otherwise to be conceived; which neither is inscrutable, nor interdicted; to which knowledge, from the affinity it hath with mans soul, there is a passage opened. The Scripture indeed commands, *let no man deceive you with sublime discourse touching the worship of Angels, pressing into that he knows not*; yet notwithstanding if you observe well that precept, you shall find there only two things forbidden; namely *Adoration of Angels*, such as is due to God; and *Phantastical Opinions of them*, either by extolling them above the degree of a creature; or to extol a mans knowledge of them farther than he hath warrantable ground. But the sober enquiry touching them, which by the gradations of things corporal, may ascend to the nature of them; or which may be seen in the Soul of Man, as in a Looking-glass, is in no wise restrained. *The same may be concluded of impure and revolted spirits*; the conversing with them, and the employment of them, is prohibited; much more any veneration towards them; but the Contemplation or Science of their Nature; their Power; their Illusions; not only from places of sacred Scripture, but from reason or experience; is a principal part of Spiritual Wisdom. For so the Apostle saith, *we are not ignorant of his stratagems*. And it is no more unlawful to enquire, in natural Theology, the nature of *evil Spirits*; than to enquire the nature of Poysons in Physick, or of vices in the Ethicks. But this part of Science touching *Angels* and degenerate spirits, I cannot note as *Deficient*; for many have employed their pens in it: Rather most of the Writers in this kind may be argued either of vanity, or superstition, or of unprofitable subtilty.

2 Cor. 2.

CHAP. III.

This Partition of Natural Philosophy into Speculative, and Operative. § And that these two, both in the intention of the writer; and in the body of the Treatise, should be seperated.

Laert. Sec.
rec.

Leaving therefore Natural Theologie (to which we have attributed the enquiry of *Spirits*, as an Appendix) we may proceed to the second Part, namely that of *Nature, or Natural Philosophy*. Democritus saith excellently, *That the knowledge concerning Nature, lies hid in certain deep Mines and Caves*. And it is somewhat to the purpose, that the

the Alchimyſts do ſo much inculcate, *That Vulcan is a ſecond Nature, and perfects that compendiously which Nature uſeth to effect by ambages and length of time*: why then may we not divide Philoſophy into two parts; the *Mine, and the Furnace*; and make two profeſſions, or occupations of *Natural Philoſophers*; *Pyoners* or workers in the Mine; and *Smiths*, or Refiners? Certainly however we may ſeem to be conceited, and to ſpeak in jeſt; yet we do beſt allow of a diviſion in that kind, if it be propoſed in more familiar and Scholaſtical terms; namely; that the *knowledge of Nature*, be divided into the *Inquiſtion of Cauſes*; and the *Production of Effects*; Speculative, and Operative; the one ſearcheth the bowels of Nature; the other faſhions Nature, as it were, upon the Anvile.

Paracel.
de Philoſ.
ſagaci.

§ Now although I know very well with what a ſtriſt band, cauſes and effects are united; ſo as the explication of them, muſt in a ſort be coupled and conjoyned: yet becauſe all ſolid and fruitful Natural knowledge hath a double, and that diſtinct, ſcale or ladder; *Ascendent and Deſcendent*; From *Experiments to Axioms*, and from *Axioms to the new Experiments*. I judge it moſt requiſite, that theſe two parts, *Speculative and Operative*, be ſeparate, both in the intention of the Writer, and the Body of the Treatiſe.

CHAP. IV.

- I. *The Partition of the Speculative knowledge of Nature into Phyſick ſpecial, and Metaphyſick: Whereof Phyſick enquires the Efficient Cauſe, and the Matter: Metaphyſick the final Cauſe and the Form.* II. *The Partition of Phyſick, into the knowledges of the Principles of Things; of the Fabrick of Things, or of the World: And of the variety of things.* III. *The Partition of Phyſick, touching the variety of things, into the Doctrines of Concretes; and into the Doctrines of Abſtracts. The Partition of the knowledge of Concretes, is referred over to the ſame Partition which Natural Hiſtory Comprehends.* IV. *The Partition of the knowledge of Abſtracts, into the knowledge of the Schemes of Matter; and into the knowledge of Motions.* V. *Two Appendices of Speculative Phyſick; Natural Problems: And the Placits of Ancient Philoſophers.* VI. *The Partition of Metaphyſick, into the Doctrines of Forms; And into the Doctrines of the Final Cauſes.*

I. **T**HAT part of *Natural Philoſophy* which is *Speculative and Theoretical*, we think convenient to divide into *Phyſick ſpecial, and Metaphyſick*. And in this Partition I deſire it may be conceiv'd, that we uſe the *Metaphyſick* in a different ſence from that, that is received. And here it ſeems to fall out not unfitly, to advertiſe in general of our purpoſe and meaning touching the uſe of words, and terms of Art. And it is this, that as well in this word *Metaphyſick* now delivered, as in other terms of Art, whereſoever our conceptions and notions are new, and differ from the received; yet with much reverence, we retain the

Ancient terms: For being we hope, that the method it self, and a perspicuous explication of the Matter, which we labour to annex, may redeem us from an incongruous conception of the words we use, we are otherwise zealous (so far as we can without prejudice of Truth and Sciences) to depart as little as may be, from the opinions and expressions of Antiquity. And herein I cannot but marvel at the confidence of *Aristotle*, who possesst with a spirit of contradiction; and denouncing war against all Antiquity, not only usurpt a license to coyn new terms of Arts at pleasure; but hath endeavoured to deface and extinguish all ancient wisdom. In so much as he never names any ancient Authors; or makes any mention of their opinions, but to reprehend their Persons; or to redargue their Placits, and Opinions. Certainly if he affected glory, and drawing disciples after him, he took the right course: For the same comes to pass in the asserting and receiving a Philosophical Truth, that doth in a Divine Truth; *veni in nomine Patris, nec recipitis me, si quis venerit in nomine suo eum recipietis.* But from this divine Aphorism, if we consider whom specially it hath designed (namely Antichrist the greatest Impostor of all times) we may collect, that the coming in a mans own name, without any regard of Antiquity, or (if I may so speak) of Paternity, is no good Augury of Truth, however it be joynd with the fortune and success of an *eum recipietis.* But for *Aristotle*, certainly an excellent man, and of an admirable profound wit, I should easily be induced to believe; that he learned this ambition of his Scholar, whom perhaps he did emulate: that if one conquered all Nations; the other would conquer all Opinions, and raise to himself a kind of Monarchy in contemplations. Although it may so fall out, that he may at some mens hands, that are of a bitter disposition, and biting language, get a like title, as his Scholar did.

Ioan. 5.

Lucan. l.
10.

*Fælix terrarum Prædo, non utile Mundo
Editus exemplum. — So*

Annal. l.

Fælix Doctrinæ Prædo, &c. But to us on the other side that do desire, so much as lies in the power of our pen, to contract a league and commerce between Ancient and Modern knowledge; our judgement stands firm, to keep way with Antiquity, usq; ad Aras; and to retain the Ancient terms; though sometimes we alter their Sence, and Definitions: according to the modern and approved manner of Innovation, in Civil Government; where the state of things being changed, yet the solemnity of words and stiles is observed which *Tacitus* notes; *Eadem Magistratum vocabula.*

§ To return therefore to the acception of the word *Metaphysick*, in our sence. It appears, by that which hath been already said, that we distinguish *Primitive Philosophy*, from *Metaphysick*, which heretofore hath been confounded and taken for the same thing. The one we have set down as a *commune Parent of all Sciences*; the other, as a portion of *Natural Philosophy*. We have assign'd Common and Promiscuous *Axioms of Sciences*, to *Primitive Philosophy*. Likewise all *Relative and Adventive Conditions and Characters of Essences*, which we have named *Transcendents*; as *Multitude, Paucity, Identity, Diversity, Possible,*

*Possible, Impossible, and such like; we have attributed to the same, only with this Proviso, that they be handled as they have efficacy in nature; and not Logically. But we have referred the inquiry concerning God; Unity, Bonity, Angels, Spirits, to Natural Theology. Wherefore now it may rightly be demanded, what after all this is remaining to Metaphysick! certainly beyond nature, nothing; but of nature it self the most excellent part. And indeed without prejudice to Truth, we may thus far concur with the opinion and conceit of Antiquity; that Physick only handleth that which is inherent in matter, and is moveable; Metaphysick things more abstracted and fixt. Again that Physick supposeth existence only and Motion; and natural Necessity: but Metaphysick the Mind also; the Idea or platform. For to this point perchance the matter comes, whereof we shall discourse. But we will propound this difference, (leaving aside the sublimity of speech) perspicuously and familiarly. We have divided Natural Philosophy into the Inquisition of causes; and the production of effects. The inquiry of causes we have referred to the Theoretical part of Philosophy; which we have divided into Physick and Metaphysick; wherefore by necessary consequence the true difference of these two Theories, must be taken from the nature of the Causes which they enquire; so without all obscurity or circuit, Physick is that which enquires of the *efficient cause*; and of the *Matter*; Metaphysick, that which enquires of the *Form and end*.*

II *Physick* therefore comprehends Causes variable and incertain, and according to the nature of the subject moveable and changing, and attains not a fixt constancy of Causes.

*Limus ut hic durefcit, & hæc ut cæra liquefcit
Uno eodemque igni——*

Virg. *Æn.*
8.

Fire is cause of induration, but respective to clay; Fire is cause of colliquation, but respective to wax. We will divide *Physick* into three Knowledges: For Nature is either united and collected into one; or diffused and distributed: Nature is collected into one either in respect of the *common Seeds and Principles of all things*; or in respect of the *entire, total Fabrick of the universe*. This union of Nature hath brought forth two Parts of *Physick*, one of the *Principles of Things*; the other of the *Fabrick of the Universe, or of the World*; which we use to call the *Doctrines of Summs or Totals*. The *Third Knowledge* which handles Nature *diffused, or scattered*, exhibits *all the variety of things*, and the lesser *Summs or Totals*. Wherefore from these contemplations it is plainly manifest, that there are three Knowledges touching *Natural Philosophy, of the Principles of things; of the world; or of the Fabrick of things* Of Nature *multiplicious or sparsed*; which last Part, (as we have said) contains all the variety of things; and is, as it were, the first Gloss, or Paraphrase touching the *Interpretation of Nature*, Of these three Parts, none is wholly *Deficient*; but in what truth and Perfection they are handled, I make not now my judgment.

III. But we will again divide *Physick* *distinctively sorted*, or of the *variety of things*, into two Parts; *into Physick of concretes; and into Physick of Abstracts: or into Physick of Creatures; and into Physick of Na-*

tures. The one (to use the terms of Logick) inquires of *Substances* with all the variety of their Adjuncts; the other of *Accidents*, or Adjuncts through all the variety of substances. For example, if the inquiry be of a *Lion*, or of an *Oak*, these are supported by many and divers Accidents: Contrarywise if the enquiry be made of *Heat*, or *Heaviness*, these are in many distinct substances. And seeing all *Physick* or *Natural Philosophy* is situate in a middle term, between *Natural History* and *Metaphysick*; the first part (if you observe it well) comes nearer to *Natural History*; the latter part nearer to *Metaphysick*; *Concrete Physick* hath the same division which *Natural History* hath; so that it is a knowledge either concerning the *Heavens*; or concerning *Meteors*; or concerning the *Globe of the earth and Sea*; or concerning the *greater Collegiats*, which they call the *Elements*; or concerning the *lesser Collegiats*, or *natures specifick*; so likewise concerning *Pretergenerations*; and concerning *Mechanicks*. For in all these, *Natural History* inquires and reports the fact it self; but *Physick*, the Causes likewise; but you must conceive this of fluid, not fixt Causes, that is, of matter and of the efficient.

§ Amongst these Portions of *Physick*, that part is altogether maimed and imperfect which enquires of *Cælestial bodies*; which notwithstanding, for the excellency of the Subject, ought to be taken into special consideration. For *Astronomy*, it is indeed not without some probability and use grounded upon the *Phænomena*, but it is vulgar; base, and no way solid: But *Astrology* in many Circumstances hath no ground at all. In truth *Astronomy* presents such a sacrifice to Mans understanding, as once *Prometheus* did, when he went about to couzen *Jupiter*; for instead of a true, substantial *Ox*, he presented the *hide* of a great and fair *Ox* stuff, and set out with straw, leaves, and *Osier* twigs; so in like manner *Astronomy* exhibiteth the extrinsick Parts of *Cælestial Bodies*, (namely the Number, Scituation, Motion, and Periods of the stars) as the *Hide of Heaven*; fair and artificially contrived into Systems, and Schemes: but the Entrals are wanting, that is, *Physicall reasons*, out of which (adjoyning *Astronomical Hypotheses*) the Theory should be extracted, not such grounds and suppositions as should only save the *Phænomena* (of which kind a number may be wittily devised) but such as propound the substance, motion and influx of the *Heavens*, as they truly are in nature. For those Dogmaes and Paradoxes are almost vanisht, and long agoe exploded, namely, the *Rapture of the First Mover*: and the *Solidity of Heaven* (*stars being there fixt as nails in the Arched Roof of a Parlour*). And other opinions, not much better, as, that there are *divers Poles of the Zodiack*; and of the world; that there is a *second moveable of Renitency*, contrary to the rapture of the first moveable; that all parts of the firmament are turned about by perfect circles; that there are *Eccentricks and Epicycles*, to save the constancy of Motion by perfect circles; that the *Moon* hath no force or influence upon a body superior to it, and the like. And the absurdity of these suppositions, hath cast men upon that opinion, of the *Diurnal Motion of the Earth*; an opinion which we can demonstrate to be most false. But scarce any man can be found, who hath made enquiry of the *Natural Causes of the substance of the heavens*, as well *Stellare*, as *Inter-stellare*; so of the *swiftness and slowness of heavenly bodies*, *referr'd one to another*; also of the various incitation of Motion in the same Planet; likewise of the perpetuated course of Motion

Raptus 1.
mobilis. So-
liditas cæli.
Motus re-
nitentia.
Poli adver-
si. Epicycli.
Eccent.
Motus Ter-
re diurn:
&c.
Hypotheses
imagina-
ris.
vide di-
gress.

from

from East to West, and the contrary: Lastly of Progressions, Stations and Retrogradations, of the Elevation and Declination of Motions, by the Apogée, or middle point; and Perigée or lowest point of heaven; so of the oblique windings of Motions, either by flexuous Spires, weaving and unweaving themselves, as they make their approach or recess from the Tropicks; or by serpentine sinuations, which they call Dragons, so of the fixt Poles of Rotations or wheeling motions, why they should be placed in such a point of the heavens, rather than in any other; so of the alligation of some Planets at a certain distance from the Sun: I say an inquiry of this kind, hath scarce been attempted, save that some labour hath been taken therein, only in Mathematical observations and Demonstrations. But these observations only shew how wittily all these motions may be contrived, and cleared from opposition; not how they may truly subsist in Nature; and represent only seeming Motions, and their fictitious Fabrick, and framed at pleasure, not their causes, and the real truth of Things. Wherefore *Astronomy*, such as now it is made, may well be counted in the number of *Mathematical Arts*, not without great diminution of the Dignity thereof; seeing it ought rather (if it would maintain its own right) be constitute a branch, and that most principal of *Natural Philosophy*. For whoever shall reject the feigned Divorces of superlunary and sublunary bodies; and shall intently observe the appetencies of Matter, and the most universal Passions, (which in either Globe are exceeding Potent, and transverberate the universal nature of things) he shall receive clear information concerning celestial matters from the things seen here with us: and contrarywise from those motions which are practised in heaven; he shall learn many observations which now are latent, touching the motions of bodies here below: not only so far as these inferiour motions are moderated by superiour, but in regard they have a mutual intercourse by passions common to them both. Wherefore this part of *Astronomy* which is natural we set down as *Deficient*. And this we will call *Living Astronomy*, to distinguish it from *Prometheus Ox* stuff with straw, which was an Ox in outward shape only.

§ But *Astrology* is corrupted with much superstition, so as there is hardly to be found any sound part therein. Yet in our judgment it should rather be purged, than clean cast away. But if any contend, that this science is not grounded upon reason, and Physical contemplations; but in blind experience, and the observation of many Ages; and therefore reject a trial by natural Arguments (which the Chaldee Astrologers boasted) he may by the same reason revoke Auguries, Divination, and Predictions from beasts entrals, and swallow down all kind of Fables; for all these superstitious vanities were avoucht, as the Dictates of long experience, and of Discipline delivered over by tradition. But we do both accept *Astrology*, as a Portion of *Natural Philosophy*; and yet attribute unto it no more credit, than reason and the evidence of Particulars do evince; setting aside superstitions and fictions. And that we may a little more seriously consider the matter.

§ First what a vain fancy is this, that every Planet should reign for certain hours by turn, so as in the space of twenty four hours, they should resume their Dominions thrice over, three supernumerary hours reserved? Yet this conceit brought forth unto us the Division of the week, a computation very ancient, and generally received, as from the inter-changeable

changeable course of days most manifestly it appears; when in the beginning of the day immediately succeeding, the fourth Planet from the Planet of the first day, enters upon his Government; by reason of the three supernumerary hours, whereof we have spoken.

§ Again we are confident to reject, as an idle fiction, the doctrine of *Genethliacal Positures of the heavens, to precise points of time; with the Distribution of the Houses*; those same darlings in Astrology, which have made such mad work in the Heavens; nor can I sufficiently wonder that many excellent men, and for Astrology of Principal note, should ground themselves upon so slight reasons, to avouch such opinions. For they say, seeing that experience it self discovers as much, that *solstices, Equinoctials, new Moons, full Moons*, and the like greater revolutions of stars, do manifestly and notably work upon natural Bodies; it must needs be, that the more exact, and subtile aspect and posture of the stars, should produce effects more exquisite and occult. But they should first except the Suns operations by manifest heat; and likewise, the magnetick influence of the Moon, upon the *increase of Tides every half Moon* (for the daily Flux and Reflux of the Sea is another thing;) But these set aside; the other power of the Planets upon natural bodies (so far as they are confirmed by experience) is slender and weak; and, which they shall find, latent in the *greater Revolutions*. Wherefore they should rather argue the other way, namely, that seeing those *greater Revolutions*, have so small influence, *those exact and minute differences of Positures* have no force at all.

§ Thirdly, *Those Fatalities, that the hour of Nativity or conception governs the Birth; The hour of inception, the fortune of the thing begun; the hour of Question, the fortune of the thing enquired; and, in a word, the science of Nativities, Elections, Questions, and such like levities; in our judgment, have no certainty or solidity in them; and may by natural reasons be plainly redargued and evinced.* The point to be spoken of rather, is, what that is which we retain and allow of in Astrology; and in that which we do allow, what is deficient? for, for this end, that is, for the observation of *Deficients*, we undertook this work; not intending (as we have often said) matter of censure. And indeed amongst the receiv'd parts of *Astrology*, the *Doctrines of Revolutions* we judge to have more soundness in them, than the rest. But it may be to good purpose, to set down and prescribe certain Rules, by the scale and square whereof, *Astrological Observations* may be examined; that what is fruitful may be retain'd; what is frivolous rejected.

§ *The first Precept* may be that whereof we have admonisht already; *let the greater Revolutions be retained; the lesser Horoscopes and Houses cashiered.* Those, like Great Ordnance may discharge their influences, at a spacious remoteness; these like small Bows, are for a short distance, and carry not their forces far. *The second rule is; That the operation of the Heavens workes not on all bodies but only upon the more tender and penetrable; such as are Humours, Air, Spirits: but here we except the Operations of the heat of the Sun, and of the Heavens, which without question pierce even to Mettals, and many subterraneous Bodies.* *The third rule is, that the Operation of the Heavens extends rather to the Mass of things and Nature in gross; than unto individual essences, and particularities; yet obliquely it reacheth to many Individuals, namely,*
those

those Individuates which of the same species are most *Passible*, and are like soft wax: even as when a Pestilential air seizeth on bodies more open and less resistant; and passeth by Bodies more compact and strong. *The fourth rule is*, somewhat like the precedent; *That the Operation of the Heavens hath its influx and dominion not in points and narrow minutes of times; but in greater spaces.* Therefore *Prognostications* of the temperatures of the year may be true; but upon particular days, are worthily accounted vain and idle. *The last rule*, (which by the more wise Astrologers hath been ever embraced) is, *That there is no fatal necessity in the stars, but that they do incline rather, than enforce.* We add this moreover (wherein we plainly take part with *Astrology*, if it were rectified) and which we know to be most certain: *That Celestial bodies have other influences besides heat and light*: which influences are of force according to the Rules we have prescribed, and no otherwise: But these lie hid in the profound Parts of Natural Philosophy, and require a larger dissertation. Wherefore we think good (that which we have said being rightly conceived) to set down, *Astrology* agreeable to our Principles, amongst *Deficients*, and as we have named *Astronomy* grounded upon natural reasons, *Living Astronomy*, so we think fit to call *Astrology* ascertain'd upon the same reasons, *Sound Astrology*. As for the right way how to frame and make this Art, although what we have said, doth not a little conduce thereto, yet according to our manner, we will add a few more observations which shall clearly propound, out of what materials it should be collected, and to what end it should be referred.

§ *First, let the knowledge touching the Commixtures of Beams be receiv'd into sound Astrology*, that is of Conjunctions, and of Oppositions, and the rest of the constellations, or Aspects of Planets, one on another. *Also we assign* to this part concerning the Commixtures of Beams, the passing of the Planets through the signs of the Zodiack, and Position under the same signs: For the location of a Planet under any sign, is a kind of Conjunction of the same Planet with the Stars of the signs: Moreover as Conjunctions, so likewise Oppositions and other Constellations of Planets towards the Stars of the signs, are to be noted, which hitherto hath not perfectly been accomplish'd. *But the interchangeable Commixtures of the Rays of the fixt stars, are indeed profitable to the Contemplation of the Fabrick of the world; and of the Nature of the Regions lying under them; but not unto Predictions, because these Aspects are ever the same.*

§ *Secondly, let there be taken into Astrology the Accessions of every particular Planet nearer to the Perpendicular, and Recessions from it, according to the Climates of Regions.* For all the Planets as well as the Sun, have their Summers, their Winters; wherein they dart down more forcible, or more feeble rays, according to their Posture in respect of the Perpendicular. For without question, *the Moon in Leo* works more forcibly upon natural bodies here below, than when she is in *Pisces*: Not because the *Moon* plac'd in *Leo*, hath reference to the Heart, and under *Pisces* respects the Feet, (as the vulgar Fable goes); for their Elevation towards the Perpendicular and Approximation towards the greater Stars; just after the same manner as the *Sun*.

§ *Thirdly, let the Apogæa, and Perigæa of the Planets be received with due*

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due inquiry, to what the vigor of a Planet appertains in respect of himself; and to what in his vicinity to us. For a Planet in his *Apogæa*, or exaltation is more chearful and active; but in his *Perigæa* or declension more communicative. “ So the Sun in his Elevation, when he enters the
 “ Tropick of *Cancer*, is in heat more recollected and vigorous; but
 “ when he falls off from the Meridian, as in *Capricorn*, he is more faint,
 “ yet more dispersed in his influence. For in his Ascension, he is not only
 “ nearer to the fixed Stars; but his beams then falling at more equal
 “ and right angles; become more united; and by a direct resultance
 “ from the earth intermix, and so reduplicate their force; whereas in
 “ his declension, they are oblique, and therefore feeble and errant in
 “ reflection. Wherefore with the Inhabitants under the Equator, the
 “ heat is more intense; than it is with Northern Confiners, where the
 “ Sun daily keeps his circuit near about the Horizon: But yet in this
 “ Perigean motion, the Suns beams are more communicative, though
 “ less active; because departing from the point of their incidence in the
 “ rebound, their reflection is oblique and dispersed. This enquiry
 “ touching the projection of beams in a right or oblique line, would
 “ be made with diligence, for it concerns all the influences of the hea-
 “ vens upon terrene bodies; the general constitution of the year; the
 “ divers temperatures of the air in the five Zones; the complexion of
 “ different Climates and the like.

§ Fourthly, to be brief, let there be taken in all the remaining Accidents of the motion of Planets; as what are the Accelerations, Retardations, Progresses, Stations, Retrogradations, of every one of them in their course, what their distance from the Sun, their Combustions, Encrease, and Diminutions of Light, Eclipses, and whatsoever else of this nature. For all these cause, that the Beams of the Planets do work more strongly, or more weakly, and after divers ways and distinct virtues: And these four observations, belong to the Radiations of Star.

§ Fifthly, let there be received in, whatsoever may any way, open and disclose the natures of Stars Errant or Fixt, in their proper essence and activity; as what is their Magnitude; of what colour and aspect; what Scintillation and Vibration of light; what Situation towards the Poles or *Æquinoctial*; what Asterisms; which are more mingled with other Stars; which are more solitary; which are superiour, which inferiour; which of the fixt Stars are within the line and course of the Sun and Planets (namely within the Zodiack) which without; which of the Planets is more swift; which more slow; which may move in the *Ecliptick* line; which may expatiate in latitude from it; what Planet may be retrograde, which not; what Planet may be at any distance from the Sun, which is tyed to attend the Sun; which moves swifter in *Apogéo*, which in *Perigéo*; to conclude the Irregularities of Mars; the expatiations of Venus, the wonderful Labours or Passions, which are often found in the Sun, and in Venus, and the like?

§ Last of all, let there be taken into *Astrologie*, even from tradition the particular Natures, and Inclination of Planets, as also of fixt Stars; which seeing they are delivered over with such an universal consent, they are not lightly to be rejected; but where they cross the grounds and reasons of natural Principles. And of such observations

as these, *sound Astrologie* is compiled; and according to these only, should Schemes and configurations of Heaven, be composed and interpreted: *Sound Astrologie* is likewise applied and referred with more confidence to *Predictions*; to *Elections*, with more *Caution*, within due limits to both. *Predictions* may be made of future *Comets*, which as we conjecture may be foretold; and of all sorts of *Meteors*; of *Deluges*; *Droughts*, *Heats*, *Conglaciations*, *Earth-quakes*, *overflowing of Waters*; *breaking out of Fires*, *Winds*, *great Rains*, *divers Tempests*, and *strange seasons of the Year*; *Pestilences*, *Epidemical diseases*; *Plenty and dearth of Grain*; *Wars*, *Seditions*, *Sects*, *Plantations of new Colonies*: lastly, of all *Commotions* and greater *Innovations*, either in *Nature*, or in *State-Government*: so these predictions may be drawn down (though not with like certainty) to more *special occurrences*, and perchance to *singularities*; if the general inclinations of such times and seasons, being first discovered and found out, these be applied by a sharp piercing judgement Philosophical or Political, to special or more particular events, which may be most subject to such *Accidents*. As for example, a man shall find out from a fore-sight of the seasons of the year, such temperatures of Weather, as are propitious or pernicious rather to *Olives*, than to *Vines*; rather to *Phthisicks*, and ulcerations of *Lungs*, than to *Hepaticks* and obstructions of the *Liver*; more to the inhabitants of high and mountainous, than low and champain Countries; more to *Monks* than *Courtiers*, by reason of their different kind of diet: Or if one from the knowledge he hath of the influence, the Heavens have over the spirits of men, should find out a man to be of such a complexion and disposition; to affect or distast rather the people than *Princes*; rather learned and curious, than couragious and warlike dispositions; rather sensual and voluptuous, than active and politick natures. Such instances as these are infinite, but (as we have said) they require not only that general knowledge, taken from the Stars, which are active; but also a particular knowledge of Subjects which are Passive. Nor are *Elections* altogether to be rejected, but more sparingly to be credited, than *Predictions*. For we see in *Planting*, and in *Sowing*, and in *Grafting*, that the observation of the *age* of the *Moon* is a matter, not altogether vain and frivolous. But these *Elections*, are by our rules more restrained than *Predictions*: and this must ever be observed, that *Elections* are of force, in such cases alone, where both the *Influx* of the Heavens is such, as doth not suddenly pass over; and likewise the *Action* of *inferiour Bodies* such, as is not presently perfected: for neither the *Encreases* of the *Moon*, nor of the *Planets* are accomplisht in an instant: but *punctuality* of time, is by all means to be rejected. There are found many of the like precise observations (which a man would hardly believe) in *Elections* about *Civil affairs*: But if any man in this case shall except against us, saying, that we have indeed made some remonstrance out of what this *reformed Astrologie* should be deduced; and likewise to what it may with profit be referred: but the manner how it is to be deduced, we have given no precept at all; he should not deal equally with us, to exact at our hands the Art it self, which we never promised, or purposed to handle. Yet notwithstanding touching such a point of Demand, thus much we will admonish; that there are only four means, which may prepare the way

to this knowledge. *First, by Experiments future, then by Experiments past: Again, by Tradition; last of all, by natural Reasons.* Now for *future Experiments*, to what end should we speak much of them? seeing to make up a competent number of Instances, so many ages are requisite, as it were, but lost labour, to think to comprehend it? *As for Experiments past*, they indeed are within the compass and reach of men, although it is a matter will require much labour, and much leisure to accomplish. For *Astrologians* (if they be not wanting to their Profession) may make a collection from the faithful reports of History, of all greater contingences; as *Inundations, Pestilences, Wars, Seditions*, and (if the state so require) *the deaths of Kings*: and may contemplate the *situation of the Heavens*, not according to the subtilty of *Figures*; but according to those general rules which we have already set down, to know in what postures the Heavens were, at those times, when such effects came to pass; that so where there is a clear, and evident consent, and concurrence of events; there a probable rule of *Prediction* may be inferred. *As for Traditions*, they ought to be so examined and sifted, that such as manifestly oppugn *Physical Reasons*, should be discarded; but such as well consent, should be valid even of their own authority. *Lastly, as for Physical or Natural reasons*, they are the aptest for this inquiry; which make inquiry of the *Catholick*, and more universal inclinations and Passions of Matter, and of the simple and genuine motions of Bodies; for by these wings we safely soar and mount up to those celestial materiare substances. Thus much concerning *Astrologia sana*.

§ *There is another Portion of Astrological Frenzie* (besides those figments which we have noted at the beginning) which is wont to be separate from *Astrologie*, and to be transferred into *Celestial Magick*, as they call it. This hath purchased a strange Gloss, from the working fancy of mans wit; namely, *That a benevolent situation or aspect of Stars, may be taken in seals and signet-rings* (be it of Metals, or of any Gemm, capable of such impresson) which may arrest the felicity of that hour, which otherwise would swiftly pass away, and as it were, *fix it, being volatilonous*. As the Poet passionately complains of this so noble Art, among the Ancients, now long ago buried in oblivion.

C. Agrip.
de Occult.
Ph. 1.

N.L.

*Annulus infuso non vivit mirus Olympo,
Non magis ingentes humili sub lumine Phæbos
Fert Gemma, aut Celso divulsas cardine lunas.*

Indeed the Church of *Rome* hath imbraced the *Reliques of Saints*, and their virtues, (for in Divine and immateriate things, the flux of time hath no power to abate the force and efficacy) but that the *Reliques of Heaven* should be so lodged, as that the hour which is past, and, as it were, dead, should revive and be continued; is a meer superstition, and imposture. Wherefore let us let go these idle fancies, unless the Muses be grown doting old Wives.

IV. *Abstract Physick in our judgement, may very well be divided into two Parts, into the Doctrine of the Schemes of Matter; and into the doctrine of Appetites or Motions.* We will run them both over briefly, from whence the delineations of the true Physick of Abstracts may be drawn

drawn. The *Schemes of Matter* are ; Dense, Rare ; Grave, Light ; Hot, Cold ; Tangible, Pneumatick ; Volatile, Fixt ; Determinate, Fluid ; Humid, Dry ; Fat, Crude ; Hard, Soft ; Fragile, Tenfible ; Porous, United ; Spirituous, Languid ; Simple, Composite ; Absolute, imperfectly Mixt ; Fibrous and full of veins, of a simple Posture or equal ; Similar, Dissimilar ; Specificate, Non-specificate ; Organical, Inorganical ; Animate, Inanimate. Neither do we extend the figurations of Matter any farther, for *Sensible and Insensible ; Rational and Irrational*, we refer to the knowledge of Man.

§ *Appetites and Motions*, are of two sorts ; either *motions simple*, which contain in them the Roots of all natural Actions ; but yet according to the *Schemes and habitudes of Matter* : or *Motions composited and produced* ; from which last, the received Philosophy of the Times (which comprehends little of the Body of Nature) takes its beginning. But such *Compound Motions* (as *Generation Corruption*, and the rest) should be taken for the *summs and products* of simple Motions ; rather than for *Primitive Motions*. *Motions simple*, are Motions of *Antitypie* ; commonly called *Motion opposing Penetration of Dimensions* ; *Motion of Connexion, or Continuity*, which they call, *Motion to avoid vacuity* ; *Motion of Liberty*, lest there should be any compression or extension preternatural ; *Motion into a new sphere*, or to Rarefaction and Condensation ; *Motion of a second connexion*, or a motion lest there should be a solution of continuity ; *Motion of greater Congregation*, or to the Mass of their connaturals, which is commonly called *Natural Motion* ; *Motion of lesser Congregation*, usually stiled, *Motion of Sympathy and of Antipathy* ; *Motion Disponent*, or that parts may be rightly placed in the whole ; *Motion of Assimilation*, or of Multiplication of its Nature upon another ; *Motion of Excitation*, where the more noble and vigorous agent awaketh, and stirs up Motion latent and dormant in another ; *Motion of the Seal or of Impression*, that is, Operation without Communication of Substance ; *Motion Regal*, or a Cohibition of other Motions from a Motion Predominant ; *Motion without Termination*, or Spontaneous Rotation ; *Motion of Trepidation*, or of Contraction and Dilatation of Bodies placed betwixt things good for them, and obnoxious to them ; lastly, *Motion of Rest or abhorrency of Motion*, which is the Cause of many things. Of this kind are *simple Motions* which truly issue forth out of the inward bowels of Nature ; which complicate, continue, interchang'd repress'd, repeated, and many ways aggregated, do constitute those *Composite Motions* or *Summs* of Motions, which are receiv'd, and such other of the same kind. The *Summs of Motions* are those Celebrated Motions, *Generation, Corruption, Augmentation, Diminution, Alteration and Lation*, so *Mixtion, Separation, Version*.

§ *There remains only as Appendices of Physick, the Measures of Motions* ; of what efficacy the *Quantity*, or Dose of Nature is ? *What distance* can do, which is called, not unproperly, the orb of Virtue or Activity ? *What incitation, or Tardity*, can effect ? *What a long or short delay* ? *What the force or rebatement* of a thing ? *What the instigation of Peristaste* or circumambient inclosure ? And these are the natural and genuine Parts of true natural Philosophy, touching *Abstracts*. For in the *figurations, or Schemes of Matter* ; in *Motions simple* ; In *summs or Aggregations*

gations of Motions; and in Measures of Motions, the Physick of Abstracts is accomplisht. As for voluntary Motion in Animals; Motion in the Actions of Senses; Motion of the Imagination; of the Appetite, and of the will; Motion of the mind; of the discerning faculty, or Practick Judgement; and of the *Intellectuals*, we refer over to their proper Knowledges. Yet thus much again we advertise, that all these Particulars we have delivered, are no farther to be handled in *Physick*, than the enquiry of their *Matter* and *Efficient*; for according to their Forms and Ends they are revised and re-examined in *Metaphysick*.

V. We will here annex two notable Appendices, which have reference not so much to the Matter, as to the Manner of Inquiry; *Natural Problems*; and *Placits of Ancient Philosophers*. The first is the Appendix of multiplied or sparsed Nature; the second of Nature united or of *summs*. Both these belong to a grave and circumspect moving of doubts, which is no mean part of Knowledge: For *Problems* comprehend particular *Dubitations*; *Placits*, general; about *Principles* and the *Fabrick*. Of *Problems* there is an excellent example in the writing of *Aristotle*; which kind of work certainly deserv'd not only to have been celebrated by Posterity; but by their labours to have been continued; seeing new doubts arise daily. But in this point Caution is to be taken, and that of great Importance. The recording and proposing of *Doubts* hath in it a two-fold use: *One*, that it munites and fortifies Philosophy against errors; when that which is not altogether so clear and evident is not defin'd and avouched, (lest error should beget error) but a judgement upon it is suspended, and is not definitive. *The other*, that the entry of *Doubts*, and recording of them, are so many Sponges which continually suck and draw in unto them an increase and improvement of Knowledge; whereby it comes to pass that those things, which without the suggestion of *Doubts* had been slightly, and without observation pass'd over, are by occasion of such *Dubitations*, more seriously and attentively considered. But these two utilities scarce recompence one discommodity, which unless it be carefully lookt unto, insinuateth it self; namely, *That a doubt once acknowledged as justly made, and become, as it were, authentick; presently stirs up defendants both ways; who in like manner commend over the same liberty of doubting to Posterity; so that men bend and apply their wits, rather to keep a doubt still on foot, than to determine and solve it.* Instances of this case we have every where, both in *Juriconsults*; and in *Students in the Universities*; who if they have once entertain'd a *Doubt*, it goes ever after authoriz'd for a *Doubt*, assuming unto themselves a priviledge, as well of *Dubitation*, as of *Affertion*: Whereas the right use of Reason is, to make things doubtful certain; and not to call things certain, into doubt: Wherefore I report as *Deficient a Calendar of Dubitations, or Problems in Nature*, and approve the undertaking of such a work, as a profitable pains; so care be had, that as knowledge daily grows up, (which certainly will come to pass, if men hearken unto us) such *Doubts* as be clearly discult, and brought to resolution, be rased out of the *Catalogue of Problems*. To this *Calendar*, I would have another annex no less useful: For seeing that in all Enquiries, there be found these three sorts of things; things manifestly true; *Doubtful*; manifestly false: It would be a very profitable course to adjoyn to the *Calendar of Doubts*, and *Non-liquets*; a *Calendar of Falshoods*,
and

Aristot.
Probl.

and of popular Errors, now passing unargued in Natural History, and in Opinions; that Sciences be no longer distemper'd and embas'd by them.

§ As for the Placits of Ancient Philosophers, as were those of Pythagoras, Philolaus, Xenophon, Anaxagoras, Parmenides, Leucippus, Democritus, and others, (which men use disdainfully to run over) it will not be amiss to cast our eyes with more reverence upon them. For although Aristotle, after the manner of the race of the Ottomans, thought he could not safely reign, unless he made away all his Brethren; yet to those who seriously propound to themselves the inquisition and illustration of Truth, and not Dominion or Magistrality, it cannot but seem a matter of great profit, to see at once before them, the several opinions of several Authors touching the Natures of things. Neither is this for any great hope conceiv'd, that a more exact truth can any way be expected from these or from the like Theories. For as the same Phenomena; the same Calculations are satisfied upon the Astronomical Principles both of Ptolomy and Copernicus: So the popular experience we embrace; and the ordinary view and face of things, may apply it self to many several Theories; whereas a right investigation of truth requires another manner of severity and speculation. For as Aristotle saith elegantly, That Children at first indeed call all men Fathers, and women Mothers, but afterwards they distinguish them both: So certainly experience in Childhood, will call every Philosophy, Mother; but when it comes to ripeness, it will discern the true Mother. In the mean time it is good to read over divers Philosophies, as divers Glosses upon Nature; whereof, it may be, one in one place; another in another, is more corrected. Therefore I could wish a collection made, but with diligence and judgment, De Antiquis Philosophiis, out of the lives of Ancient Philosophers; out of the Parcels of Plutarch of their Placits; out of the Citations of Plato; out of the Confutations of Aristotle; out of a sparsed mention found in other Books as well of Christians, as of Heathens, (as out of Laëtantius, Philo, Philostratus, and the rest): For I do not yet see extant a work of this Nature. But here I must give warning, that this be done distinctly, so as the Philosophies, every one severdly, be composed and continued, and not collected by titles and handfuls, as hath been done by Plutarch. For every Philosophy while it is entire in the whole piece, supports it self; and the opinions maintained therein give light, strength, and credence mutually one to the other; whereas if they be simple and broken, it will sound more strange and dissonant. In truth when I read in Tacitus the Actions of Nero, or of Claudius invested with Circumstances of Times, Persons, and inducements: I find them not so strange, but they may be true: but when I read the same Actions in Suetonius Tranquillus, represented by titles and common places, and not in order of Time, they seem monstrous and altogether incredible: So is Philosophy when it is propounded entire; and when it is sliced and articulated into fragments. Neither do I exclude out of this Calendar of the Placits, or Sects of Philosophy, the Theories and opinions of later times, as that of Theophrastus Paracelsus eloquently reduced into a body and Harmony of Philosophy by Severinus the Dane, or of Telesius of Cosenze, who reviving the Philosophy of Parmenides hath turn'd the weapons of the Peripateticks upon themselves, or of Patri-

cius the Venetian; who hath sublimated the fumes of the *Platonists*; or of *Gilbert* our Countryman, who hath restored to light the opinions of *Philolaus*; or of any other whatsoever, if he be of merit. And because the volumes of these Authors are wholly extant, there may be abridgements made only of them, and so annex, by way of reference to the rest. And thus much of *Natural Philosophy*, and the *Appendices* thereof.

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 Formæ. Re-
 rum.
 In Timæo
 alibi.
 Gen. 2.
 Gen. 1.

VI. *As for Metaphysick, we have assigned unto it, the inquiry of Formal and Final causes; which application, as to Forms, may seem to be nugatory and void.* For an opinion hath prevailed; and is grown inveterate, that the *essential Forms* and *true Differences* of things, can by no diligence of Man be found out. Which opinion in the mean, gives and grants us thus much; that the *Invention of Forms*, is of all other parts of knowledge the worthiest to be sought; if it be possible they may be found. And as for Possibility of Invention, there are some faint-hearted discoverers; who when they see nothing but Air and Water, think there is no farther Land. But it is manifest that *Plato*, a man of an elevated wit, and who beheld all things as from a high cliff, in his doctrine of Ideas, did descry, that forms were the true object of knowledge, however he lost the real fruit of this most true opinion, by contemplating and apprehending Forms, as absolutely abstract from matters; and not confined and determined by matter: whereupon it came to pass that he turned himself to Theological speculations, which infected and distained all his *Natural Philosophy*. But if we keep a watchful, and a severe eye upon Action and Use, it will not be difficult, to trace and find out what are the *Forms*; the disclosure whereof would wonderfully enrich and make happy the estate of man. For the *Forms of substances*, (man only except, of whom it is said, *Formavit hominem de limo terra, & spiravit in faciem ejus spiraculum vitæ*; not as of all other kinds, *Producat aqua, producat terra*) I say the species of creatures, as they are now multiplied by compounding and transplanting, are so perplex and complicate, as it is either altogether lost labour to make enquiry of them, or the inquisition thereof, such as as may be had, should be suspended for a time, and when the *Forms* of nature, in her more simple existence are rightly sought and found out, then to be determin'd and set down. For, as it were not a thing easie, nor any way useful, to seek the *Form of that sound, which makes a word*; being that words through composition, and transposition of letters are infinite: but to enquire the *Form of sound, which expresseth some simple letter* (namely with what collision, with what application of the instruments of voice it is made) is a thing comprehensible and easie; which form of letters once known, presently leads us to the form of words. In the same manner to enquire the form of a Lyon, of an Oak, of Gold, nay of Water, of Air, is a vain pursuit; but to enquire the *Forms of Dense, Rare; Hot, Cold; Heavy, Light; Tangible, Pneumatick; Volatile, Fixt*; and the like, both of *Figurations* and of *Motions*; whereof the most of them we have enumerated when we handled *Physick*, and are wont to call them, *Forms of the first rank or order*; and which (as the letters of the Alphabet) are not so many in number, and yet build up and support the *Essences and Forms* of all substances. And this is that very point, which we aim at, and endeavour to compass; and which constitutes and defines that part

of

of *Metaphysick*, whereof we now enquire. Not doth this so prejudice or hinder, but that *Physick* may consider the same Natures also (as hath been said) but only according to the fluid and mutable causes. For example, if the cause of *whiteness* in Snow or in Froth be enquired, it is well rendred, that it is the *subtile intermixture of Air with water*. But this is far from being the *Form of whiteness*; being that Air intermixt with the dust, or powder of Glass, or Chrystal, doth likewise produce *whiteness*, as well as if it were mingled with water; but this is the *efficient cause only*, which is no other than *vehiculum Formæ*. But if the enquiry be made in *Metaphysick*, you shall find some such rule as this, *That two diaphanous bodies being intermixt, their optick Portions in a simple order, or equally placed, do determine and constitute whiteness*. This part of *Metaphysick* I find *deficient*: and no marvail, because by the course of enquiring, which hitherto hath been practised, the *Forms of things* will never appear, while the world endures. The root of this error, as of all other, is this; that men in their contemplations of nature are accustomed to make too timely a departure, and too remote a recess from experience and particulars; and have yielded and resigned themselves wholly over to the fumes of their own fancies, and popular Argumentations. But the use of this part of *Metaphysick*, which I report as *deficient*, is of the rest the most excellent in two respects.

§ *First*, because it is the duty and peculiar virtue of all Sciences, to abridge (as much as the conception of truth will permit) the ambages and long circuits of Experience, and so to apply a remedy to the ancient complaint of *vita brevis, ars longa*. And this is excellently performed, by collecting and uniting the Axioms of Sciences, into more general heads and conceptions; which may be agreeable to all Individuals. For Sciences, are the Pyramids supported by History; and Experience as their only and true Basis; and so the Basis of Natural Philosophy is Natural History; the stage next the Basis is *Physick*; the stage next the vertical point is *Metaphysick*: as for the Cone and vertical point it self (*opus quod operatur Deus à principio usque ad finem*; the summary law of Nature) we do justly doubt, whether mans enquiry can attain unto it. But these three be the true stages of Sciences; and are, to men swelled up with their own knowledge, and a daring insolence, to invade Heaven, like the three hills of the Giants.

*Ter sunt Conati imponere Pelion Ossæ,
Scilicet atque Ossæ frondosum involvere Olympum.*

Virg.
Geor. 4.

But to those that disabling themselves, and discharging their pride, refer all to the glory of God, they are the three acclamations, *Sanctæ, Sanctæ, Sanctæ*: for God is holy in the multitude of his works, Holy in the order of them, Holy in the union. And therefore the speculation was excellent in *Parmenides* and *Plato*; although but a speculation in them, *That all things by scales did ascend to unity*. So then, that science is the worthiest, which least chargeth mans understanding with multiplicity; and it is evident, that that is *Metaphysick*, as that which principally speculates those simple Forms of things; (which we have stiled *Forms of the first degree or order*) which though they be few in number, yet in their *Commensurations* and *Co-ordinations*, they make all kinds of variety.

Apoc. 4.
In Parm.

§ The

Plat. in
Phæd. Cic.
de Fin. 2.
Tasc. 4.

Prov. IV.

§ The Second respect which enobles this part of *Metaphysick* touching *Forms*, is, that of all other sciences, it doth most enfranchise, and set at liberty the Power of Man; and brings it forth into a most ample and open field to exercise in. For *Physick* directs mans labour and diligence through narrow and restrained ways, imitating the flexious courses of ordinary Nature; But *late undique sapientibus via*, to *sapiēce* (which was anciently defined to be, *Rerum divinarum & humanarum scientiā*) there is ever copy and variety of means. For *Physicall* causes give light and occasion to new inventions in *simili materia*; but whosoever knows any *Form*, knows also the utmost possibility of *superinducing that nature upon any variety of matter*; and so is less restrained and tied in operation, either to the Basis of the *matter*, or to the condition of the *Efficient*; which kind of knowledge, though in a more divine sence, *Solomon* elegantly describes, *Non arctabuntur gressus tui, et Currens non habebis offendiculum*; his meaning is, that the ways of *sapiēce*, are not liable to streights, nor perplexities.

Aristot.
Probl.

§ The second part of *Metaphysick*, is the enquiry of *Final Causes*; which we note not as omitted, but as misplaced: for the enquiry of them usually is made amongst the *Physicks*, and not in the *Metaphysicks*. And yet if this were a fault in order only, I should not much stand upon it; for order is a matter of Illustration, and pertains not to the substance of *Sciences*: but this inversion of order, hath caused a notable *deficiency*, and brought a great decay upon Philosophy. For the handling of *Final Causes* in the *Physicks*, hath intercepted, and banisht the enquiry of *Physical Causes*; and hath given men occasion to rest satisfied in such specious, and umbratillous Causes; and not thorowly to urge and press the enquiry of *real and truly Physical Causes*. For this I find done not only by *Plato*, who ever Anchreth upon that Shore; but also by *Aristotle*; *Galen*, and others, who usually likewise fall upon these Flats. For to say, *That the eye-lids furnisht with hairs are for a quick-set and fence to fortifie the the sight: or that the firmness of skins, and hides of living Creatures, is to repel the extremities of heat and cold: or that Bones are ordained by Nature for Columns and Beams whereupon the frame of the Body is to be built: or that Trees shoot forth leaves to shadow and protect the fruit from the Sun and the wind: or that the Clouds are ingendred above, to water the earth below: or that the Earth is close, compact and solid, that it may be a Station and Mansion for living Creatures*; is properly enquired in *Metaphysick*; but in *Physick* they are impertinent. Nay, (to pursue this point) *such discoursing Causes as these, like the Remoraes (as the fiction goes) adhering to ships, stay and slug the sayling, and the Progress of Sciences, that they could not hold on their Course, and advance forward to further Discoveries: And now long ago it is so brought to pass, that the search of Physical Causes, thus neglected, are decayed and passed over in silence.* And therefore the *Natural Philosophy* of *Democritus*, and some others, who removed God and a Mind from the frame of things; and attributed the structure of the world to infinite Preludiums, and Essays (which by one name they term'd *Fate* or *Fortune*; and have assigned the Causes of Particulars to the necessity of Matter, without intermixture of *Final Causes*) seemeth to us (so far as we can conjecture from the Fragments and Remains of their Philosophy) in respect of *Physical Causes*, to have been far more solid, and to have penetrated more profoundly into Nature; than

than that of *Aristotle* and *Plato* for this reason alone, that those *Ancient Philosophers* never wasted time in *final Causes*; but these perpetually press and inculcate them. And in this point *Aristotle* is more to blame than *Plato*, seeing he hath omitted the fountain of all *final Causes*, *God*; and in the place of *God* substituted *Nature*; and hath imbraced *final Causes* rather as a lover of *Logick*, than an adorer of *Divinity*. Nor do we therefore speak thus much, because those *final Causes* are not true, and very worthy the enquiry in *Metaphysick Speculations*; but because, while they fall out, and break in upon the Possessions of *Physical Causes*, they do unhappily depopulate and waste that Province: For otherwise, if they keep themselves within their precincts and borders, they are extremely deceiv'd, who ever think that there is an enmity or repugnancy between them and *Physical Causes*. For the cause render'd, That the hairs about the eye-lids, are for the safe-gard of the sight, doth not indeed impugn that other Cause; That pilositie is incident to Orifices of Moisture,

Muscoſe Fontes, &c. —

Virg. Buc.

Nor the Cause render'd, that the firmness of Hides is in Beasts for armor against the injuries of extreme weather, doth impugn that other Cause; That that firmness is caused by the contraction of pores in the outward parts of the body through cold, and depredation of Air; and so of the rest: both causes excellently conspiring, save that, the one declares an intention, the other a consequence only: Neither doth this call in question, or derogate from *divine Providence*; but rather wonderfully confirms and exalts it. For as in *Civil Actions*, that *Politick wisdom* will be more deep, and admired, if a man can use the service of other men to his own ends and desires; and yet never acquaint them with his purpose (so as they shall do what he would they should do, and yet not understand what they do); then if he should impart his counsels to those he employs: So the wisdom of *God* shines more wonderfully, when *Nature* intends one thing, and *Providence* draws forth another; then if the Characters of *Divine Providence* were imprest upon every particular habitude and motion of *Nature*. Surely *Aristotle*, after he swelled up *Nature* with *Final Causes*; *Naturam nihil frustra facere; siveque voti semper esse compotem (si impedimenta abessent)*; and had set down many such tending to that purpose; had no farther need of *God*: But *Democritus* and *Epicurus*, when they publisht and celebrated their *Atoms*; were thus far by the more subtle wits listned unto with *Patience*: but when they would avouch, that the *Fabrick* and *Contexture* of all things in *Nature*, knit and united it self without a *Mind*, from a fortuitous Concourse of those *Atoms*, they were entertain'd with laughter by all. So that *Physical Causes* are so far from withdrawing mens minds from *God* and *Providence*; as rather contrariwise those *Philosophers* which were most exercised in contriving those *Atoms*, found no end and issue of their travail, until they had resolved all at last into *God* and *Providence*. Thus much of *Metaphysick*, a part whereof touching *Final Causes* I deny not to have been handled both in the *Physicks* and *Metaphysicks*; in these truly, in those improperly; for the inconvenience hath ensued thereupon.

De Cæle,
lib. 1. &
lib. de
part. a.
nimal.

CHAP. V.

- I. The Partition of the Operative Knowledge of Nature into *Mechanick and Magick*: Respondent to the parts of Speculative Knowledge; *Mechanick to Physick*; *Magick to Metaphysick*. § A purging of the word *Magia*. II. Two Appendices to Operative Knowledge, *An Inventory of the Estate of man*. *A Catalogue of Polychrests, or things of multifarious use*.

I. **T**HE Operative knowledge of Nature, we will likewise divide into two Parts; and that from a kind of Necessity. For this Division is subordinate to the former Division of Speculative Knowledge; for *Physick*, and the Enquiry of Efficient and Material Causes, produces *Mechanick*: but *Metaphysick*, and the enquiry of Forms produces *Magick*: As for Final Causes, the enquiry is barren, and as a Virgin consecrate to God brings forth nothing. Nor are we ignorant that there is a *Mechanical Knowledge*, which is meerly *emperical*, and *operary*, not depending on *Physick*; but this we have refer'd to *Natural History*, and separate it from *Natural Philosophy*: Speaking here only of that *Mechanical Knowledge* which is connext with *Causes Physical*. But yet there falls out a certain *Mechanical*, or experimental Knowledge which neither is altogether *Operative*; nor yet properly teaches so high as *speculative Philosophy*: For all the Inventions of Operations which have come to mens Knowledge, either have fallen out by casual incidence; and afterwards deliver'd from hand to hand, or were sought by a purposed experiment. Those which have been found out by intentional experiment, they have been disclosed either by the light of *Causes*, and *Axioms*; or found out by extending, or transferring, or compounding former inventions; which is a matter more sagacious and witty, than Philosophical. And this part which by no means we despise, we shall briefly touch hereafter, when we shall treat of *Literate experience* amongst the parts of *Logick*. As for the *Mechanick* now in hand, *Aristotle* hath handled it promiscuously; *Hero in spiritalibus*; as likewise *Georgius Agricola* a modern Writer, very diligently in his *Minerals*; and many others in particular Treatises on that subject; so as I have nothing to say of *Deficient's* in this kind; but that the *promiscuous Mechanicals* of *Aristotle*, ought to have been with more diligence continued, by the pens of recent Writers; especially with choice of such experimentals, of which either the Causes are more obscure, or the Effects more noble. But they who insist upon these, do, as it were, only coast along the shoar, *Premendo littus iniquum*. For in my judgement there can hardly be any radical alteration, or novation in Nature; either by any fortuitous adventures; or by essays of Experiments; or from the light of *Physical Causes*; but only through the invention of *Forms*. Therefore if we have set down that part of *Metaphysick* as *Deficient*, which entreateth of *Forms*; it follows that *Natural Magick* also, which is a Relative unto it, is likewise *Defective*.

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§ But it seems requisite in this place that the word *Magia*, accepted for a long in the worse part, be restored to the ancient and honourable sense. *Magia amongst the Persians*, was taken for a sapience, and a Science of the harmony and contents of universals in Nature; so those three *Eastern Kings* which came to adore *Christ*, are stiled by the name of *Magi*: and we understand it in that sense, as to be, *a Science which deduceth the knowledge of hidden forms to strange and wonderful effects and operations; and as it is commonly said, by joyning Actives with Passives, which discloseth the great wonders of Nature.* As for the *Natural Magick*, (which flies abroad in many mens books) containing certain credulous and superstitious traditions, and observations of *Sympathies*, and *Antipathies*, and of hidden and specifick proprieties, with some experiments commonly frivolous; strange, rather for the art of conveyance and disguise, than the thing it self; surely he shall not much err, who shall say, that this kind of *Magick*, is as far differing in truth of Nature, from such a knowledge as we require; as the Books of the Gestes of *Arthur of Britain*, or of *Hugh of Burdeaux*, differs from *Cæsars Commentaries* in truth of story. For it is manifest, that *Cæsar* did greater things *de vero*, than they durst feign of their *Heroes*; but he did them not in that fabulous manner. *Of this kind of Learning, the Fable of Ixion was a figure*; who projecting with himself to enjoy *Juno* the Goddess of Power, had copulation with a cloud, of which he begot *Centaur*s and *Chimeraes*. So whoever are carried away with a frantick and impotent passion, and vaporous conceit to those things, which only, through the fumes and clouds of Imagination, they fancy to themselves to see, instead of substantial operations; they are delivered of nothing but airy hopes, and certain deformed and monstrous apparitions. The operation and effect of this superficial, and degenerate *Natural Magick* upon Men, is like some soporiferous drugs, which procure sleep; and withal exhale into the fancy, merry and pleasant dreams in sleep. *First*, it casts mans understanding into a sleep, still chanting and suggesting specifick proprieties, and secret virtues; and set down, as it were, from heaven, to be delivered, and to be learned only by auricular traditions; whence it comes to pass, that men are no more stirred up and awaked to search with diligence, and to force out the true causes; but sit down satisfied with these frivolous and credulous opinions: and then instills an infinite number of pleasing fictions, in the manner of dreams, and such as one would most wish to be true. And it is worth the pains to note, that in these Sciences, which hold so much of *imagination* (as are that *adulterate Magick*, whereof we now speak, *Alchymie*, *Astronomy*, and the like) the means and Theory are ever more monstrous, than the end and pretences. *The turning of Silver* or *Quick-silver*, or any other metal into Gold, as a hard thing to believe: yet it is a thing far more probable, to a man well skilled, and experimented in the natures of weight, yellow, colour, malleable and extensible; as also fixe and volatile: and likewise to one who hath exactly searcht into the first seeds and menstruous Purgings of Minerals; that Gold by an industrious and curious wit, may, at last, be produced; than that a few grains of *Elixir*, or of the power of Production, should be of force;

in a few Minutes, to turn Metals into Gold, by the activity of the same *Elixir*; which is able to perfect Nature, and to deliver it from all impediments. *So the retarding of Age*, or the restoring of some degree of youth, doth not easily purchase a belief: yet it is far more likely to a man that knows perfectly the nature of *Arefaction*, and the depredations of the spirits; upon the solid parts of the body; and hath thoroughly observed the nature of Assimilation, and of Alimentation; either more perfect or more peccant; also the nature of the Spirits and of the Flame (as it were) of the body, assigned sometimes to consume, sometimes to repair; may by Diets, Bathings, Anointings, proper Medicines, and accommodate Motions, and the like, *prolong life*, or renew some degrees of youth, or vivacity: then that this should be effected, by a few drops or scruples of some precious *Liquor* or Quintessence. *Again, that Fates may be drawn from the Stars*, men will not suddenly, and easily assent unto; but these, that the hour of Nativity (which oftentimes through many natural accidents, is either accelerated or differed) should govern the fortune of the whole life, or that the hour of Question is co-fatal with the thing it self which is sought, you will say are meer impostures. But such a rash impotency and intemperance, doth possess and infatuate the whole race of man; that they do not only presume upon, and promise to themselves what is repugnant in nature to be performed; but also, are confident that they are able to conquer even at their pleasure, and that by way of recreation, the most difficult passages of nature, without trouble or travail. *And of Magick* thus much; the name whereof we have vindicated from reproach, and separated the true and noble kind from the base and counterfeit.

* II. Of this operative part of Nature there are two Appendices, both of much importance. *The first is, that there be made an Inventory of the estate of Man*; in which there should be taken and compendiously cast up, the summ of all the wealth and fortunes of men (whether they arise from the fruits and revenues of Nature, or of Art) which are now extant, and whereof men are already possess, adding such inventions, as is manifest have been in times past celebrated, but are now perisht. To this end and purpose, that he who addresseth himself to the search of new Inventions, may not be arrested in his inquest, nor waste time and study in those things which are already invented, and are now extant. *And this Inventory* will be more artificial, and more serviceable, if you add those things which in popular conceit are reputed *impossible*; and together with them couple such inventions, as are nearest in degree to *impossibles*, and yet are extant; that the one may set an edge on mans enquiry, the other may in a sort direct it: and that from these *Optatives*, and *Potentials*, mans *Actives* may be more readily conducted.

* § *The second is, that there be made a Calendar of those experiments*, which are *Polychrests*, things of a multifarious use; and most universal consequence; and which conduce and direct to the *Invention* of other experiments. For example; the artificial experiment of *conglaciation of Water by Ice with black salt*, pertains to infinite purposes and essays; for this discloseth the secret and abstruse

INVEN-
TARIUM
OPUM
HUMA-
NARUM.

CATA-
LOGUS
POLY-
CHRE-
STO-
RUM.

struse manner of Condensation, than which nothing is more commodious for men. *As for fire*, that is a ready and known Agent for *Rarefaction*, but the mystery of *Condensation*, is not yet fully discovered: and it makes much for the abridgement of invention, if *Polychrests* of this nature were collected into a particular Catalogue.

CHAP. VI.

Of the great Appendix of Natural Philosophy Speculative, as Operative, Mathematick knowledge; and that it ought rather to be placed amongst Appendices, than amongst substantial Sciences. § The Partition of Mathematicks into Pure and Mixt.

Aristotle saith well; *Physick and Mathematick ingender practical or mechanical knowledge*: Wherefore now we have handled, both Metaph. 1. & 12. the *speculative and operative part of the knowledge of Nature*; order requires that we speak of *Mathematick*, which is an auxiliary Science to to them both. For, in the received Philosophy, *Mathematick is annext, as a third part, to Physick and Metaphysick*; but it seems to us, who have undertaken to reexamine, and Till over again these things, (if we had designed this as a substantive and principal Science) more agreeable both in respect of the nature of the thing, and the light of order, to place it as a branch of *Metaphysick*. For *Quantity*, which is the subject of *Mathematick Science*, applied to Matter, is the Dose, as it were, of Nature, and productive of a number of effects in things natural; and therefore is to be reckoned in the number of *essential forms*. For the Laert. in Dem. Power of *Figure and Number*, seemed to be of such force amongst the Ancient Philosophers, that *Democritus* placed the seeds of the variety of things, principally, in the *Figures of Atoms*; and *Pythagoras* asserted, the Natures of things, to be constituted of *Numbers*. In Iambli. de vita Pyth. l. 1. the mean, this is true, that of *Natural Forms*, (as we understand forms) *Quantity* is of all most abstracted and separable from Matter: which was the reason why it hath been more painfully laboured, and exactly inquired by men, than any other *Form* whatsoever, which are all more immersed in Matter. For being it is the nature of Man (certainly to the great prejudice of knowledge) to delight in the open *Fields of Generals*; rather than in the *Woods and Inclosures of Particulars*; there was nothing found more acceptable and delightful, than the *Mathematicks*; wherein that appetite of expatiating and meditating might be satisfied. And though all this be true, yet to us, who provide not only for truth and order, but likewise for the use and profit of men; it seemed at last better, to design *Mathematicks*; being they are of such efficacy, both in *Physick*, and in *Metaphysick*, and in *Mechanicks*, and in *Magick*, as the *Appendices and Auxiliary Forces* of them all: which in a sort we are compelled to do for the wantonness and arrogancie of the *Mathematicians*, who could

could be content, that *this Science*, might even command and overrule *Physick*. For it is come to pass, by what fate I know not, that *Mathematick* and *Logick*, which should carry themselves as handmaids to *Physick*, boasting their certainty above it, take upon them a command and Dominion. But we do not so much stand upon the rank and dignity of this Science, let us consider the thing it self.

§ *Mathematicks* are either *Pure* or *Mixt*; to *Pure Mathematicks*, those Sciences are referred, which handle *Quantity* altogether abstracted from Matter, and Physical Axioms. They are two, *Geometry*, and *Arithmetick*; the one handling *Quantity* continued, the other dissevered. Which two Arts have indeed been inquired into, with subtilty and industry, but neither to the labours of *Euclid* in *Geometry*, hath there been any thing of any worth added by posterity, in so many centuries of years since he flourisht; nor hath the Doctrine of *Solids*, for the use and excellency of the knowledge, been laboured and advanced by Writers Ancient or Modern. And in *Arithmetick* there hath not been found out apt and sufficient variety of compendious ways for *supputations*; especially about *Progressions*; whereof there is great use in the *Physicks*. Nor is the *Algebra*, or *Art of Equation* well perfected; but that *Pythagorical* and *Mystical Arithmetick*, which is begun to be revived out of *Proclus*, and some Remains of *Euclid*; is a spacious field of speculation: For such is the nature of Man, that if it be not able to comprehend *Solids*, it wastes it self in unprofitable niceties.

§ *Mixt Mathematick*, hath for subject *Axioms*, and portions of *Physick*; and considers *Quantity*, as it is auxiliary to enlighten, demonstrate, and actuate them. For many parts of Nature can never be with sufficient subtilty comprehended, nor demonstrated with sufficient perspicuity, nor accommodated to use with sufficient dexterity and certainty, without the Aid and intervening of the *Mathematicks*. Of which sort are *Perspective*, *Musick*, *Astronomy*, *Cosmography*, *Architecture*, *Ingenarie*, and divers others. But in *Mixt Mathematicks*, I can now report no entire portions *Deficient*; I rather make this prediction, that there will be more kinds of them invented by posterity, if men be not wanting to themselves. For as Physical knowledge daily grows up, and new Axioms of nature are disclosed, there will be a necessity of new *Mathematick* inventions, and so at last more *Mixt Mathematicks* will be contrived. And now we have passed through the knowledge of Nature, and have noted the *Deficients* therein. Wherein if we have departed from the Ancient and received opinions, and thereby have moved contradiction; for our part, as we affect not to dissent, so we purpose not to contend. If it be truth,

Virg. Bucol.

Non Canimus surdis, respondent omnia sylvæ;

The voice of nature will cry it up, though the voice of man should cry it down. And as *Alexander Borgia* was wont to say, of the Expedition of the French for *Naples*, that they came with chalk in their hands

Vid. Hist. G. I.

hands to mark up their Lodgings, and not with weapons to fight; so we like better, that entry of truth, which comes peaceably, where the Minds of men, capable to lodge so great a guest, are signed, as it were, with chalk; than that which comes with Pugnacity; and forceth it self a way by contentions and controversies. Wherefore having finisht two parts of Philosophy, concerning God, and concerning nature; the third remains concerning Man.

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the world up their heads, and the
 the letter that they of such which
 kinds of men, capable to be
 with others, than that which
 a way by contentment and
 parts of Philology, concerning
 religious concerns of men.

THE
 Fourth Book
 OF
 FRANCIS L. VERULAM
 VICOUNT S^t ALBAN,
 OF THE
 Dignity and Advancement
 OF
 LEARNING.

To the KING.

CHAP. I.

I. The Partition of the Knowledge of Man into the Philosophy of Humanity; and Civil. § The Partition of the Knowledge of Humanity into the Knowledge touching the Body of Man; and into the Knowledge touching the Soul of Man. II The Constitution of a general Knowledge of the Nature, or of the State of man. § The Division of the Knowledge of the State of Man, into the Knowledge of the Person of Man; and of the League of the Mind, and the body. § The Division of the Knowledge of Mans Person, into the Knowledge of Mans Miseries. § And of his Prerogatives. III. The Division of the Knowledge of the League, into the Knowledge of Indications. § And of Impressions. § The Assignment of Physiognomy. § And of the Interpretation of Natural Dreams, to the Knowledges of Indications.



IF any Man (*Excellent King*) shall assault, or wound me for any of those *Precepts* I have delivered, or shall hereafter deliver (besides that I should be safe, being under the Protection of *Your Majesty*) let him know, that he doth that which is against the Custom and Law of Arms: For I am a Trumpeter only, I do not begin the fight; perchance one of those of whom *Homer*, &c.

Hom. II. 4.

Καίσετε κήρυκες διὸς Ἄγγελοι, ἠδὲ καὶ ἀνδρῶν :

For these even between Mortal and enraged enemies past to and fro ever inviolated. Nor doth our Trumpet summon, and encourage men to tear and rend one another with contradictions; and in a civil rage to bear Arms, and wage War against themselves; but rather, a peace concluded between them, they may with joynt forces direct their strength against Nature her self; and take her high Towers, and dismantle her fortified Holds; and thus enlarge the Borders of mans Dominion, so far as Almighty God of his goodness shall permit.

Plat. in
Alcib. 1.
Cic. de
LL. lib. 1.

Sen. Epist.
§ 89.

Cicero de
Orat.

I. Now let us come to that Knowledge, whereunto the Ancient Oracle directeth us, which is *the knowledge of our selves*: which deserves the more accurate handling by how much it toucheth us more nearly. *This knowledge is to man the end and term of Knowledges; but of Nature her self, a portion only.* And generally let this be a rule, that all Divisions of Knowledges be so accepted and applied, *As may rather design forth and distinguish Sciences into Parts; than cut and pull them asunder into pieces; that so the continuance and entireness of Knowledges may ever be preserved.* For the contrary practice hath made particular Sciences to become barren, shallow, and erroneous; while they have not been nourisht, maintain'd and rectified from the common Fountain and Nursery. So we see Cicero the Orator complained of Socrates, and his School; *That he was the first that separated Philosophy and Rhetorick;* whereupon Rhetorick became a verbal, and an empty Art. And it is also evident, that the opinion of Copernicus, touching the Rotation of the Earth (which now is maintain'd) because it is not repugnant to the Phænomena, cannot be revinc'd by Astronomical Principles; yet by the Principles of Natural Philosophy, truly applied, it may. So we see also that the Science of Medicine, if it be destituted and forsaken of Natural Philosophy, it is not much better than *Emperical Practicc.*

§ *This being laid as a ground, let us proceed to the Knowledge of man.* This hath two parts: *For it either considereth man segregate, or distributively; or congregate, and in society: the one we call Philosophy of Humanity; the other Philosophy Civil.* The Philosophy of Humanity, or Humane, consisteth of the same Parts, whereof man himself consisteth; that is, of knowledges which respect the Body; and of knowledges which respect the Mind.

II. *But before we pursue particular Distributions, let us constitute; One general Knowledge of the Nature and State of Man:* For indeed it is very fit that this Knowledge be emancipate, and made a knowledge by it self. It is compos'd of those Sympathies and Concordances commune between the Body and the Mind.

§ *Again, this Knowledge of the Nature and State of man may be distributed into two Parts; attributing to the one the undivided Nature of man; to the other the Combination between the Mind and the Body:* The first of these we will call *the knowledge of the Person of man;* the second *the knowledge of the League.* And it is plain that all these several Branches of Knowledge, being they are common and commixt, could not be assigned to that first Division of Knowledge, conversant

about

about the *Body*; and of Knowledges conversant about the *Mind*.

§ *The Knowledge concerning the Person of man*, comprehends specially two things; namely the *Contemplations of the Miseries of Mankind*; and of the *Prerogatives, or Excellencies of the same*. But the *bemoaning of mans miseries* hath been elegantly and copiously set forth by many in the writings, as well of *Philosophers*, as *divines*. And it is both a pleasant and a profitable *Contemplation*.

§ As for that other touching *Mans Prerogatives*, it is a point may well be set down among the *Deficients*. *Pindar* when he would extol *Hiero*, speaks (as usually he doth) most elegantly, *That he cropt off the tops, or summities of all virtues*. For I suppose it would much conduce to the *Magnanimity*, and *Honour of Man*; if a *Collection* were made of the *Ultimies* (as the *Schools* speak) or *Summities* (as *Pindar*) of *Humane Nature*, principally out of the faithful reports of *History*: That as; *What is the last and highest pitch, to which mans Nature of it self hath ever reach'd in all the Perfections both of Body and Mind*. What a strange ability was that which is reported of *Cesar*, that he could dictate at once to five *Secretaries*! So the *Exercitations of the Ancient Rhetoricians*, *Protagoras*; *Gorgias*; likewise of *Philosophers*; *Calisthenes*; *Possidonius*; *Carneades*; who were able to discourse extempore upon any Subject *Pro* and *Con*, with fluency and elegancy of expression, do much ennoble the *Powers of mans wit and natural endowments*. And that which *Cicero* reports of his Master *Archias* is little for use, but perchance great for *Ostentation and Faculties*; that he was able upon the sudden to alledge a great number of excellent verses pertinent to the purpose of such *Discourses* as were then in hand. It is a singular commendation to that faculty of the *Mind*, the *Memory*; that *Cyrus* or *Scipio* could call so many thousands of men by their *Particular Names*. But the *Trophies of Moral virtues*, are no less famous than those of *intellectual virtues*. What a great example of *patience* doth that common story of *Anaxarchus* present unto our thoughts, who put to the *Rack and Torture*, bit out his own tongue, the hoped *Instrument of some Discovery*, and spit it in the *Tyrant's face*? Nor is that inferiour for *tolerance* though much for the *merit and Dignity*, (which fell out in our time) of a certain *Burgundian*, who had committed a *Murder upon the Person of the Prince of Orange*; this slave being scourged with *iron whips*; and his *flesh torn with burning Pincers*, gave not so much as a *groan*; howbeit when a broken piece of the *Scaffold* fell by chance upon the head of one that stood by, the scorcht *stigmatiz'd varlet* laught, even in the midst of his *torments*, who a little before wept at the cutting off of his *curled hair*. In like manner the *serenity and security of Mind* hath appeared wonderful in many, even at the instant approaches of *Death*; as that of a *Centurion* recorded by *Tacitus*; who being commanded by the executioner to stretch forth his neck valiantly. *I would* (saith he) *thou wouldst strike as valiantly*. But *John Duke of Saxonie* when the commission was brought him, as he was playing at *chess*, wherein his death was commanded the next day, call'd to one that stood by, and smiling, said; *See, whether I have not the better hand of this Game*; He (pointing towards him with whom he played) *will boast when I am dead, that he was the fairer of the set*. And our *More*, *Chancellour of England*, when the day before he was to die, a *Barber* came unto him (sent

*
Triumphs
Hominis,
Sive De
Summitatibus
Naturae
Humanae.
In Olymp.

Suet. in
Iul.
Plat. in
Hip. in A-
rist. Quin.
Inst. 3 La-
ert in vit.
Philostr.
in Ep. alii
Pro Ar-
chia Poe-
ta.
Xenop.
Cyp. 5.
Quintil.
Inst. XI.
Laert.

Metetan.
Hist. bel.
L. XI

Annal. 15.

Hist.
Germ.

Vita. Mori.

for this end, lest perchance the grave and reverend sight of his long hair might move compassion in the People, and asked him whether it was his pleasure to have his hair cut) he refused, and turning to the Barber; *The King* (said he) *is at suit with me for my head, and untill that Controversie be ended I mean to bestow no cost upon it.* And the same Person at the very point of Death, after he had laid his head upon the fatal Block raiseth up himself a little again; and having a fair large Beard gently removed it, saying, *Yet I hope this hath not offended the King.* But not to insist too long upon this point, it is evident what we mean, namely, that *the wonders of Humane Nature, and the ultimate Powers, and virtues as well of Mind as of Body, should be collected into a Volume, which might serve as a Kalendar of Humane Triumphs.* For a work of this Nature, we approve the Purpose, and Designe of *Valerins Maximus,* and *C. Plinius*; but it could be wisht they had us'd more choice and Diligence.

Arist. Hipp.

III *As touching the knowledge of the league, or mutual Alliance between the Body and the Mind;* that may be distributed into two Parts. For as all leagues and Amities consist of mutual intelligence, and mutual offices; so this league of *Mind and Body,* is in like manner comprised in these two circumstances; that is, to describe *How these two, namely, the Mind and the Body, disclose one to the other; and how one worketh upon the other, by discovery or Indication; and by Impression.* The former of these (namely a description what discovery may be made of the Mind, from the habit of the Body, or of the Body from the Accidents of the Mind) hath begotten unto us two Arts, both of prediction; whereof the one is honoured with the Inquiry of *Aristotle*; and the other of *Hippocrates.* And although the modern times, have polluted these Arts with superstitious and Phantastical mixtures, yet being purged and restored to their true state, they have both a solid ground in nature, and a profitable use in life.

*
Physiognomia Corporis In motu.

Jacobus. R.

§ *The first is Physiognomy, which discovers the dispositions of the mind, by the lineaments of the Body. The second is the exposition of Natural dreams, which discovereth the state and Disposition of the Body, from the Passions and Motions of the mind.* In the Former of these, I note a Deficiency: for *Aristotle* hath very ingeniously and diligently handled the Postures of the Body, while it is at Rest; but not the Gestures of the Body when it is in Motion; which are no less comprehensible by Art, and of Greater use. For the lineaments of the Body, do disclose the Inclinations and Proclivities of the Mind in general; but the Motions and Gestures of the Face and Parts, do not only so, but further declare the Accesses, and Seasons, and Prognosticks of the present disposition, and of the will. For, to use your Majesties most apt and elegant expression, *The tongue speaks to the ear, but the Gesture speaks to the eye.* And therefore a number of old subtle and crafty Persons, whose eyes do dwell upon the faces and fashions of Men, do well know this observation; and can turn it to their own advantage, as being a great part of their ability and wisdom, Neither indeed can it be denied, but that this is a great discovery of dissimulation in an other, and a great direction, for the election of seasons, and opportunities of approaching to persons; which is not the meanest part of Civil Prudence. And let no man think, that such dexterity may somewhat avail, in respect of some Particular persons, but cannot be comprehended under rule: for we all laugh, and weep,
and

and blush, and bend the brow much after the same manner; and so for most part it is in other more subtile motions. As for *Chiromancy*, it is a meer imposture.

§ And as touching the exposition of *Dreams*; it is a subject handled in some mens writings, but soild with many idle vanities; only thus much for the present I do Insinuate, that this knowledge of *interpreting Dreams*, wants the support of a solid Base; and that foundation is this, where the same effect is wrought, by an inward cause, that useth to be wrought by an outward; that extern Act is transformed into a Dream. The surcharge of the stomach from a gross vapour, and from the poise of some outward weight, are alike; wherefore they that labour of the *Night-mare* do dream, that a weight is put upon them, with a great preparation of circumstances. The fluctuation or pensility of the Bowels, from the agitation of the waves in the sea, and from the wind gathered about the *Diaphragma*, are alike: therefore such as are troubled with the *Hypochondriack* wind, do often dream of Navigations, and Agitations upon the waters. There are an infinite number of such like instances.

§ The other branch of the *knowledge of the league* (which we have called *Impression*) hath not as yet been collected into Art, but hath sometimes intervned among other Treatises sparsedly, and as in passage only. It hath the same Antistrophe with the former: for the consideration is double; either how, and how far the humours and temperament of the body, do alter or work upon the mind: Or again, How and how far, the Passions and Apprehensions of the mind do alter or work upon the Body. The former of these we see sometimes, handled in the Art of Physick; but the same hath by strange ways insinuated it self into Religion. For the Physician prescribes Remedies to cure the Maladies of the mind; as in the cures of Frenzies and Melancholy: they do also administer Physick to exhilarate the Mind; to munite and strengthen the heart, and so to increase the courage, to sharpen and clarify the wits, to corroborate the Memory, and the like. But Diets, and choice of Meats, and Drinks, and other observances touching the Body, in the sect of the *Pythagoreans*; in the Heresie of the *Manichees*, and in the law of *Mahomet* do exceed all measure. So likewise the ordinances of the Ceremonial Law, interdicting the eating of the blond; and the Fat: and distinguishing between beasts clean and unclean, so far as they are for meat, are many and strict. Nay the Christian faith it self, though clear and sincere from all clouds of ceremonies; yet retains the use of Fastings; Abstinences; and other observances, which tend to the maceration and humiliation of the Body; as things not meerly Figurative; but also Fruitful. The root and life of all such prescripts as these, (besides the Ceremony it self, and the practice of Canonical obedience,) consists in this whereof we speak, namely, that there may be a mutual sufferance and humiliation of the Soul with the Body. And if any man of weaker judgement do conceive, that these impressions of the Body upon the Mind, do either question the immortality, or derogate from the sovereignty of the soul over the Body; to an easie doubt, an easie answer is sufficient. Let him take these instances; either from an Infant in the Mothers wombe, which is compatible with the Accidents and Symptomes; of the mother, and yet separable in its season, from the Body of the mother: Or from Monarchs, who though they have absolute power, are sometimes inclined.

clined by the sway of their Servants; yet without subjection of their Persons or diminution of their Power.

§ Now as for the reciprocal part, the operations of the Soul, and of the Effects and Passions thereof upon the Body; that also hath found a place in Medicine. For all wise Physicians do ever consider and handle, *Accidentia Animi*, as a Matter of great moment, for their Cures; and which are of great force to further or hinder all other Remedies: But there is another observation pertinent to this subject, which hath been very sparingly inquired into, and nothing to the depth and dignity of the thing; that is, (setting aside the affections) *how far the Imagination of the Mind, or a thought deeply fixt, and exalted as it were, into a belief, is of Power to alter the Body of the Imaginant?* For though it hath a manifest power to hurt, it follows not, that it hath the same degree of power to help: No more indeed, than if a man should conclude, that because there be pestilent Airs able suddenly to kill a man in health; therefore there should be Sovereign Airs, able suddenly to cure a man in sickness. *This Inquisition* would certainly be of excellent use, but as *Socrates* said, it needs a *Delian Diver*, being covered with darkness and obscurity. Again, of all these Knowledges, *de Fœdere*; or of the *Concordances between the mind and the body*, there is no part more necessary than the disquisition of the *Seats and Domicils*, which the several faculties of the mind do take and occupate in the Body, and the Organs thereof. Which kind of knowledge hath not wanted Sectators, but what is found in many such Writers is either controverted, or slightly inquired; and would be searcht into with more diligence and perspicacity. For the opinion introduced by *Plato* placing the understanding in the brain, as in a high Tower; *Animosity* (which he unfitly calleth *Anger*, being it is nearer to Tumor and Pride) in the Heart; *Concupiscence* and *Sensuality* in the Liver, deserves not altogether to be despised; nor yet too hastily embrac'd. So the placing of the *Intellectual Faculties*; *Imagination, Reason, Memory*; according to the ventricles of the Brain, is not without error. Thus have we explicated the Knowledge touching the *individed nature of man*, as also touching the *League of the Body and the Mind*.

Laert.inV.

Plat.inTimæo.
Arist.de Gen.Anim.4.
Gal. de plac.
Plat.

CHAP. II.

- I. The Partition of the Knowledge respecting the Body of Man into Art Medicinal. §. Cosmetick. §. Athletick. §. And Voluptuary. II. The Partition of Medicine, into three duties. §. Conservation of Health. III. Cure of Diseases. IV. And Prolongation of Life: And that the last part, *Prolongation of Life*, should be separate from the other two.

THE Knowledge that concerns mans body, is divided, as the Good of Mans Body is divided, unto which it is referr'd. The Good of Mans Body, is of four kinds; Health; Form, or Beauty; Strength; Pleasure. Wherefore there are so many Sciences; Medicine, or the Art

of

of Cure; Cosmetick, or the Art of Decoration; Athletick, or the Art of Activity; and Art Voluptuary, which Tacitus calls *Eruditus Luxus*.

§ *Medicine* is a noble Art, and according to the Poets descended of a most generous race; for they have brought in *Apollo*, as the chief God of Medicine, to whom they have assigned *Æsculapius* for his son; a God too, and a Professor of *Physick*: Because in things natural the Sun is the Author, and Fountain of Life; the Physician the Conserver of Nature; and as it were a second Spring of Life. But the greatest glory to *Physick* is from the works of our Saviour, who was a Physician both of Soul and Body: And as he made the Soul the peculiar object of his heavenly Doctrine; so he design'd the Body the proper subject of his miracles. For we never read of any miracles done by him respecting Honour or Wealth, (besides that one when Tribute was to be given to *Cæsar*) but only respecting the Body of man; or to preserve, or to sustain, or to cure it.

§ *The Subject of Medicine* (namely *mans Body*) is, of all other things which nature hath brought forth; most capable of Remedy; but then that Remedy is most capable of Error: For the same subtilty, and variety of the subject, as it affords great possibility of Cure, so it gives great facility to error. Wherefore as that Art (such as now it is) may well be reckon'd amongst Arts conjectural; so the enquiry thereof may be placed in the number of the most difficult, and exactest Arts. Neither yet are we so senseless, as to imagine with *Paracelsus*, and the Alchymists; That there are to be found in mans Body certain Correspondences, and Parallels to all the variety of specifick Natures in the world (as Stars, Minerals, and the rest) as they foolishly fancy and Mythologize; straining, but very impertinently, that emblem of the Ancients, That man was *Microcosmus*, an abstract, or model of the whole world, to countenance their fabulous, and fictitious invention. Yet notwithstanding this is an evident truth, (which we were about to say) That amongst all Bodies Natural, there is not found any so multipliciously compounded as the Body of man. For we see Herbs, and Plants, are nourished by earth and water; Beasts by Herbs and Fruits: But man by the flesh of living Creatures; as Beasts, Birds, Fish; and also of Herbs, Grains, Fruits, Juice, and divers Liquors; not without manifold commixtures, seasoning, and Preparation of these Bodies before they come to be mans meat, and aliment. Add hereunto, that Beasts have a more simple order of life, and less change of affections to work upon their Bodies, and they commonly working one way; whereas man in his Mansions, Exercises, Passions, Sleep, and Vigilances is subject to infinite vicissitudes of changes. So that it is most evident that of all other natural substances, the Body of man is the most fermentated, compounded, and incorporated Mass. The soul, on the other side, is the simplest of substances, as it is well exprest;

Homer.
Hym. Pa.
san. alii.

Paramir.
lib. 4.
Rob.
Flud. pas.
sim.

— — Purumq; relinquit
Æthereum sensum, atq; Aurai simplicis ignem.

Virg. Æn.
6.

Arist.
Phys. & ds
cels.

So that it is no marvail, though the soul so placed, enjoy no rest; according to that Principle, *Motus rerum extra locum est rapidus, placidus in loco*: But to the purpose, this various and subtile composition and fabrick of mans body hath made it, as a curious and exquisite instrument,

ment, easie to be distemper'd; therefore the Poets did well to conjoyn
 Paufan. in
 Eliacis.
 Ov. Met. 1. *Musick and Medicine in Apollo; because the Genius of both these Arts is
 almost the same; and the office of a Physician consisteth meerly in this,
 to know how to tune, and finger this Lyre of mans body; that the
 Harmony may not become discordant and harsh. So then this incon-
 stancy, and variety of the subject, hath made the Art more conjectu-
 ral: And the Art being so conjectural had given more large scope, not
 only to error, but even to imposture. For almost all other Arts and
 Sciences are judg'd by their power and operation; and not by their success
 and work. The Lawyer is judg'd by the virtue of his pleading; and not
 by the issue of the Cause; the Master in the Ship approves his Art, by the
 directing his course aright, and not by the fortune of the voyage: But the
 Physician, and perhaps the Politick hardly have any proper particular Acts,
 whereby they may make a clear demonstration of their Art and abilities;
 but bear away honour or disgrace principally from the event which is ever an
 unequal judicature. For who can tell, if a Patient dye or recover; or
 if a State be preserved or ruin'd; whether it be by Art or Accident?
 Therefore it often falls out, that the Impostor bears away the Prize,
 Virtue the Censure. Nay, the weakness and credulity of men is such, As
 they often prefer a Mountebank, or Witch, before a Learn'd Physician. There-
 fore the Poets were clear and quick-sighted, when they made *Æscula-
 pius* and *Circe*, Brother and Sister; both children of the Sun, as in the
 Verses; of *Æsculapius* the Suns Son,*

Virg. Æn.
7.

*Ille repertorem Medicinæ talis, & Artis,
 Fulmine Phœbigenam Stygeas detrusit ad undas;*

And likewise of *Circe* the Suns Daughter,

Ibid.

*Dives inaccessos ubi solis filia lucos
 Assiduo resonat cantu: tectisq; superbis
 Urit odoratam nocturna in lumina Cedrum.*

Ecclef. 2.

For in all times in the reputation and opinion of the Multitude,
 Witches, and old Women, and Impostors have been rival Competi-
 tors with Physicians; and have even contended with them for the fame
 of Cures. And what I pray you follows? Even this, that Physitians say to
 themselves, as *Solomon* expresth it upon a higher occasion, *If it befalls
 to me, as it befalls to the fool, why should I labour to be more wise?* And
 therefore I cannot much blame Physicians, if they use commonly to
 intend some other Art, or Practice, which they fancy more than their
 Profession: For you shall have of them Poets, Antiquaries, Criticks,
 Rhetoricians, Politicks, Divines, and in these Arts better seen, than in
 their own profession. Nor doth this come to pass, as I suppose, be-
 cause (as a certain Declaimor against Sciences, objects against Physi-
 cians) they have ever Conversant before their eyes such loathsome and
 sad spectacles, that they must needs retire their minds from these ob-
 jects, to some other contemplations; for as they are men, *Nihil Hu-
 mani à se alienum putent*, but for this reason, whereof we now speak;
 namely, that they find, that *Mediocrity, and excellency in their Art,
 maketh no difference in profit or reputation towards their Persons or For-*

Agrip. de
van. scienc.

tunes.

tunes. For the vexations of sickness; the sweetness of life; the flattery hope; the commendation of friends; maketh men to depend upon Physicians with all their defects: But if a man seriously weigh the matter, these things rather redound to the imputation of Physicians, than their excusation: who should not for these prejudices cast away hope; but encrease their pains and diligence. For whosoever pleaseth to excite and awake his observation, and a little look about him, shall easily deprehend even from common and familiar examples, what a command and sovereignty the subtilty and sharpness of the understanding hath over the variety either of matter, or of the form of things. *Nothing is more variable than mens faces* and countenances; yet the memory retains the infinite distinctions of them: Nay, a Painter with a few shells of Colours; the benefit of his eye; the habit of his imagination; and the steadiness of his hand; can imitate and draw with his pencil all faces that are, have been, or ever shall be; if they were brought before him: *Nothing more variable than mans voice*; yet we can easily discern their differences in every particular person; nay, you shall have a Buffoon, or a Pantomimus will render and express to the life, as many as he pleaseth. *Nothing more variable than articulate sounds of words*, yet men have found away to reduce them to a few Letters of the Alphabet. And this is most certain, *that it is not the insufficiency, or incapacity of mans mind; but rather the remote standing, or placing of the object that breeds these Mazes, and Incomprehensions.* For as the sense a far off is full of mistaking; but within due distance errs not much; so it is in the understanding. *For men use commonly to take a prospect of Nature, as from some high Turret, and to view her a far off; and are too much taken up with generalities, whereas if they would vouchsafe to descend and approach nearer to particulars; and more exactly and considerately look into things themselves; there might be made a more true and profitable discovery and comprehension.* Now the remedy of this error, *is not alone this, to quicken or strengthen the Organ; but withal to go nearer to the object:* And therefore there is no doubt but if Physicians, letting Generalities go for a while, and suspending their assent thereto, would make their approaches to Nature; they might become Masters of that Art, whereof the Poet speaks,

*Et quoniam variant morbi, variabimus Artes;
Mille mali species, mille salutis erunt.*

Ovid R;
A. l. 2.

Which they ought the rather to endeavour because the Philosophers themselves, upon the which Physicians, whether they be Methodists, or Chymists, do relye (*for Medicine not grounded upon Philosophy is a weak thing*) are indeed very slight and superficial. *Wherefore if too wide Generalities, though true, have this defect, that they do not well bring men home to Action; certainly there is greater danger in those Generals, which are in themselves false, and instead of directing to truth, mislead the mind into the by-paths of Error.*

§ *Medicine therefore* (as we have seen) hitherto hath been such, as hath been more professed, than laboured; and yet more laboured than advanced; seeing the pains bestowed thereon, hath been rather in cir-

cle, than in progression. *For I find much Iteration but small Addition in Writers of that Faculty.*

II. We will divide it into three Parts, which we will call the three Duties thereof: *The first is Conservation of Health, second the Cure of Diseases; the third Prolongation of Life.*

§ But for this last duty, Physicians seem not to have acknowledg'd it as any principal part of their Art; but have (ignorantly enough) mingled and confounded it as one and the same with the other two. *For they suppose, that if Diseases be repelled before they seize upon the body; or be cured after they have surpriz'd the body; that Prolongation of Life must naturally follow.* Which though it be so, without all question, yet they do not so exactly consider; that these two offices of *Conservation* and *Curation*, only pertain to Diseases; and to such *Prolongation of Life* alone, which is abbreviated and intercepted by Diseases: *But to draw out the thread of Life, and to prorogue Death for a season, which silently steals upon us by natural resolution, and the Atrophy of Age; is an argument, that no Physician hath handled it according to the Merit of the subject.* *Neither let that scruple trouble the minds of Men, as if this thing committed to the dispensation of Fate, and the divine providence, were now by us first repealed and commended to the charge and office of Art.* For without doubt Providence doth dispose and determine all kind of deaths whatsoever, whether they come of violence, or from Diseases, or from the course of Age; and yet doth not therefore exclude Preventions and Remedies: For Art and humane industry do not command and rule Fate, and Nature; but serve and administer unto them. *But of this part we shall speak anon: Thus much in the mean time by way of anticipation, lest any should unskillfully confound this third office of medicine, with the two former, which usually hitherto hath been done.*

Fatum,
Stoic.
horr. Dog-
ma.

§ *As for the duty of preservation of Health, the first duty of the three, many have written thereof, as in other points very impertinently, so (in our judgment) in this particular; in attributing too much to the quality of meats, and too little to the quantity thereof: and in the quantity it self, they have discoursed like Moral Philosophers, excessively praising Mediocrity; whereas both fasting changed to custome, and full feeding, to which a man hath inured himself, are better regiments of health, than those Mediocrities which commonly enervate Nature, and make her slothful, and impatient, if need should be, of any extremity, excess, or indigence.* And for the divers kinds of *Exercise*, which much conduce to the *conservation of health*, none of that profession hath well distinguished or observed; whereas there is hardly found any disposition to a disease, which may not be corrected by some kind of exercise proper to such an infirmity: As bowling is good against the weakness of the Reins; shooting against the obstruction of the Lungs; walking and upright deport of the Body, against the Crudities of the stomach; and for other diseases other exercitations. *But seeing this part touching the conservation of health, hath been in every point after a sort handled, it is not our purpose to pursue lesser deficiencies.*

III. *As concerning the cures of Diseases; that is a Part of Medicine, whereon much labour hath been bestowed, but with small profit. It comprehendeth in it the knowledge of Diseases, to which mans body is*

subject

subject, together with the *Causes, Symptomes, and Cures* thereof. In this second Duty of Medicine, many things are *deficient*, of these we will propound a few, which are more remarkable, which to enumerate without precise order or Method, we suppose sufficient.

§ *The first is the discontinuance*, of that profitable and accurate diligence of *Hippocrates*, whose custom was to set down a *Narrative* of the special cases of his Patients, what the Medicament, what the event. Therefore having so proper and notable a precedent from him, who was accounted the Father of the Art, we shall not need to allege any example forreign, fetcht from other Arts; as from the wisdom of the Lawyers, with whom nothing is more usual, than to set down and enter more notable cases, and new dicisions, whereby they may the better furnish and direct themselves for the definition of future cases. *Wherefore I find this continuation of Medicinal Reports deficient*, specially digested into one entire body, with diligence and judgement, which yet I understand not to be made so ample, as to extend to every common case that daily falls out (for that were an infinite work, and to small purpose) nor yet so reserved and contracted as to admit none, but Prodigies and wonders, as many have done: for many things are new in the *manner* and circumstances of the thing, which are not *new* in the *kind*; and he that shall give his mind to observe, shall find many things even in matters vulgar worthy observation.

§ So in *Disquisitions Anatomical*, the manner is, that those parts which pertain in general to Mans body, are most diligently enquired and observed even to a curiosity, and that in every least file: *but as touching the variety which is found in divers bodies, there the diligence of Physicians fails.* And therefore I grant that *simple Anatomy* hath been most clearly handled; *Comparative Anatomy*, I desire to be deficient. For men have made a good enquiry into all the parts, and into their consistencies, figures, and collocations: but the divers figure, condition, and posture of those parts in divers men, they have not so well observed. The reason of this omission I suppose is no other than this, that the first inquiry may be satisfied in the view of one or two Anatomies; but the latter, being *Comparative* and Casual, must arise from the attentive and exact observation of many *Dissections*: and the first is a matter, wherein learned Professors in their Lectures, and the press of spectators standing about them, may vaunt themselves; but the second kind of *Anatomy*, is a severe knowledge, which must be acquired by a retired speculation, and a long experience. Nevertheless, there is no doubt but that the Figure and Structure of the inward parts is very little inferiour, for variety and lineaments, to the outward members; and that Hearts and Livers, and Ventricles are as different in men, as are either their Foreheads, or Noses, or Ears.

§ *And in these differences of inward parts*, there are often found the *Causes continent* of many Diseases; which Physicians not observing, do sometime accuse the Humours which are not delinquent, the fault being in the very Mechanick Frame of some part. In the cure of which Diseases, to apply *Alterative Medicines*, is to no purpose (because the part peccant is incapable of such alteration,) but the matter must be mended, and accommodated, or palliated by a prescript Diet and familiar Medicines. So likewise to *Comparative Anatomy* appertain ac-

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NARRA-
TIONES
MEDICI-
MALES.

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ANATO-
MIA
COMPA-
RATA.

curate observations, as well of all kind of humours, as of the footsteps and impressions of diseases in divers bodies dissected: for the Humours in Anatomies are commonly past by, as if they were superfluous Purgaments and Excrements; whereas it is a point very useful and necessary, to note of what nature, and of how various kinds there be of different humours (not relying herein too much upon the received divisions,) which sometimes may be found in the body of Man; and in what Cavities and Receptacles, every humour useth for most part to lodge and nestle, and with what advantage or prejudice, and the like. In like manner the *Footsteps* and *Impressions* of *Diseases*, and the lesions and devastations of the inward parts by them, are to be observed with diligence in divers *Anatomies*; as imposthumes, ulcerations, solutions of continuity, putrefactions, corrosions, consumptions, luxations, dislocations, obstructions, repletions, tumors; together with all perternatural excrencencies, found in mans body (as stones, carnosities, wens, worms, and the like;) I say all these, and such other, should be with great diligence inquired, and digested by that *Comparative Anatomy*, whereof we speak, and the experiments of many Physicians collected and collated together. *But this variety of Accidents*, is by Anatomists, either handled perfunctorily, or else past over in silence.

§ *Touching that other defect in Anatomy, (namely, that it hath not been used to be practised upon living bodies,)* to what end should we speak of it? for this is an odious and an inhumane experiment, and by *Celsus* justly condemned: yet notwithstanding, that observation of the Ancients is true, That many Pores, Passages and Pertusions, which are more subtile than the rest, appear not in *Anatomical dissections*, because they are shut and latent in *Dead Bodies*; whereas they are open and manifest in *Live*. Wherefore to consult both for use and humanity, this *Anatomia vivorum*, is not altogether to be relinquisht, or referred (as *Celsus* did) to the casual inspections of *Surgions*, seeing this may well be performed, being diverted upon the *Dissection of Beasts alive*, which, notwithstanding the dissimilitude of their parts with mans, may sufficiently satisfy this enquiry, being done with judgement.

De Re
Medica.

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DE CURA-
TIONE
MORBO-
RUM HA-
BITORUM
PRO IN-
SANABI-
LITATE.
§ *Likewise in their inquiry of Diseases*, they find many *Diseases* which they discern and judge to be incurable; some, from the first access of the Disease, others, after such a certain period: so that the Proscriptions of *L. Scylla*, and the *Triumvirs*, were nothing to the Proscriptions of *Physicians*, by which, by their most unjust Edicts; they deliver over so many men to death; whereof numbers do escape with less difficulty, than they did in the Roman Proscriptions. Therefore I will not doubt to set down among *Deficients* a work of the cures of *Diseases* held incurable; that so some excellent Generous Professors in that faculty, may be awakt and stirred up, to set to this work (so far as the latent operations of Nature, by mans industry, may be disclosed) seeing this very sentence of *Pronouncing Diseases to be incurable*, enacts a Law, as it were, for sloath and negligence, and redeems ignorance from Discredit and Infamy.

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DE EU-
THANA-
SIA EXTE-
RIORIS.
§ *Nay farther, to insist a little upon this Point*, I esteem it the office of a *Physician*, not only to restore health, but to mitigate dolours, and tortments of *Diseases*; and not only when such mitigation of pain, as of a dangerous

dangerous symptome, may make and conduce to recovery; but even when all hope of recovery being gone, it may serve to make a fair and easie passage out of life. For it is no small felicity, which *Augustus Cæsar* was wont to wish to himself, that same *Euthanasia*; which was also noted in the Death of *Antonius Pius*, who seemed not so much to dye, as to be cast into a sweet and deep sleep. And it is written of *Epicurus* that he procured this same easie departure unto himself; for after his disease was judged desperate, he drowned his stomach and senses with a large draught, and ingurgitation of wine; whereupon the Epigramm was made — *hinc Stygias ebruis hausit aquas, He took away by these draughts of wine, the bitter tast of the Stygian water.* But in our times Physicians make a kind of scruple and nicety of it, to stay with a patient after the disease is past hope of cure; whereas in my judgment, if they would not be wanting to their profession, and to humanity it self, they ought both to enquire the skill, and to give the attendance, for the facilitating and asswaging of the Pains and Agonies of Death at their departure. And this part, the enquiry *de Euthanasia Exteriori*, (which we so call to distinguish it from that *Euthanasia*, or *sweet-calm Dying*, procured by a due preparation of the soul) we refer to the number of *Deficients*.

Sueton. in Aug.

Lært. in Epicuro.

§ *So in the Cures of Diseases*, I find generally this *Deficiency*; that the Physicians of the time, though they do not impertinently pursue the general intentions and scope of Cures; yet for particular Receipts, which by a kind of propriety respect the cures of specificall diseases; either they do not well know them, or they do not religiously observe them. For the Physicians have frustrated and taken away the fruit of Traditions, and approved experience, by their *Magistralities*; in adding and taking out, and changing ingredients of Receipts at their pleasure; and almost after the manner of Apothecaries, putting in *Quid pro Quo*; commanding so presumptuously over Medicine, as the Medicine can no longer command the disease. For except *Treacle*, and *Mithridatum*, and of late, *Dioscordium*, and the confection of *Alkermes*, and a few more Medicines; they commonly tie themselves to no receipts severely and strictly. For the confectiions of sale, which are in the shops, they are in readines rather for general purposes, than accommodate and proper for particular cures; for they do not exactly refer to any disease in special; but generally to the opening of obstructions, comforting concoction, altering Distemperatures. And this is the cause why *Empericks* and *Old women* are more happy many times in their Cures, than Learned Physicians; because they are faithful, and scrupulous in keeping themselves to the confection and composition of approved Medicines. I remember that a Physician with us here in England, famous for practice, in religion half Jew, and almost an Arabian for his course of study, wont to say, *your European Physicians are indeed Learned men, but they know not the Particular Cures of Diseases.* And the same person used to jest, but unreverently, saying, *That our Physicians were like Bishops, they had the Keys of binding and loosing, and nothing else.* But to speak the truth in earnest; in our opinion it would be a matter of good consequence, if some Physicians of Note for Learning and Practice, would compile a work of Probations, and experimented Medicines for the cure of Particular Diseases. For that any man, induced by some specious reason

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DICINIS
AV-
THEN-
TICIS.

son

son, should be of opinion, that it is the part of a learned Physician (respecting the complections of Patients, their Age, the season of the year, Customes and the like, rather to accommodate his Medicines as occasions suggest, than to insist upon some certain Prescripts, is a deceivable assertion, and which attributes too little to experience, too much to judgment. *Certainly* as in the state of *Rome* they were the men most useful, and of the best composition, which either being Consuls favoured the People, or being Tribunes inclined to the Senate: So in the matter we now handle, they be the best of Physicians, which either in their great Learning, do much value the Traditions of Experience; or being famous for Practice, despise not Methods and Generalities of Art. *As for qualifications* of Medicines (if at any time that be expedient) they are rather to be practis'd upon the Differents of Physick, than incorporated into the Receipt, wherein nothing should be innovated without apparent necessity. *Wherefore this Part which handleth Authentick and Positive Medicines,* we report as *Deficient*: but it is a matter not to be attempted or undertaken without a sharp and piercing judgment; and as it were, in a Synod of select Physicians.

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IMITATIO
THER-
MARVM
NATU-
RALI-
UM.

§ Also in the *Preparations of Medicines* I do find it strange (specially considering how *Mineral Medicines* have been so extolled, and celebrated by Chymists; and that they are safer for the outward than inward Parts) *that no man hitherto hath endeavoured by Art to imitate Natural Baths, and Medicinable Fountains;* and yet it is confessed that *those Baths and Fountains* receive their virtues from mineral veins through which they pass: and for manifest proof hereof mans industry knows well how to discern and distinguish from what kind of Minerals such waters receive their tinctures; as whether from Sulphur; Vitriol; Steel, or the like: *which natural tincture of waters,* if it may be reduced to compositions of Art, it would be in mans power, both to make more kinds of them, as occasion required; and to command, at pleasure, the temperament thereof. *Therefore this Part of the imitation of Nature in Artificial Baths* (a thing without question both profitable and easie to be done) we take to be *Deficient*.

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FILUM
MEDICI-
NALE.

§ *But lest I should pursue Particulars more precisely,* than is agreeable to our intention, or to the proportion of this Treatise; I will close and conclude *this Part* with a note of one *Deficiency* more, which seems to us to be of great consequence; which is, *that the Prescripts in use are too compendious to effect any notable or difficult cure.* For in our judgment it is a more vain and flattering, than true opinion, to think that any *Medicine* can be so sovereign, or so happy, as that the simple use thereof should be of force sufficient for some great cure. It were a strange speech which spoken, or spoken oft, should reclaim a man from a vice deeply rooted and inveterate, certainly it is far otherwise: *But it is order, Pursuit, Sequence, Artificial interchange, that are potent and mighty in nature:* Which although they require more exact judgment in prescribing; and more precise obedience in observing, yet this is amply recompenced in the greatness of effects. And although a man would think, by the daily diligence of Physicians, their Visitations, Sessions, and Prescriptions, which they perform to the sick; that they did painfully pursue the Cure; and go on in a certain course: Yet let a man exactly look into their prescripts, and ministrations, he shall find many

many of them full of wavering, inconstancy, and every days devises; and such as came into their minds without any certain, or advised course of Cure. For they should even from the beginning, after they have made a full and perfect discovery of the disease, meditate and resolve upon an orderly sequence of Cure; and not without important reasons depart therefrom. And let Physicians know for certain, that (for example) three perchance, or four receipts, are rightly prescribed for the Cure of some great disease; which taken in due order, and in due spaces of time perform the Cure; which if they were taken single, or by themselves alone; or if the Course were inverted, or the intervals of time not observed, would be hurtful. Nor is it yet our meaning that every scrupulous and superstitious way of Cure in estimation should be the best; no more than that every streight way is the way to Heaven, but that the way should be right as well as streight and difficult. And this Part which we call *Filium Medicinale* we set down as *Deficient*. So these are the Parts which in the Knowledge of Medicine, touching the cure of Diseases, are *desiderate*, save that there remains yet one part more of more use than all the other, which is here wanting, *A true and Active natural Philosophy, upon which the science of Medicine should be built*: but that belongs not to this Treatise.

IV. The third part of Medicine we have set down to be that of the *Prolongation of Life*, which is a part new and *Deficient*, and the most noble of all: For if any such thing may be found out, Medicine shall not be practis'd only in the impurities of Cures, nor shall Physicians be honour'd only for Necessity, but for a gift, the greatest of earthly Donations that could be confer'd on mortality, whereof men, next under God, may be the Dispensers and Administrators. For although the world to a Christian man, travelling to the land of Promise, be as it were a wilderness, yet that our shooes and vestments (that is our Body, which is as a coverture to the soul,) be less worn away while we sojourn in this wilderness, is to be esteemed a gift coming from the divine goodness. Now because this is one of the choicest parts of Physick, and that we have set it down amongst *Deficients*, we will after our accustomed manner give some Admonitions, Indications, and Precepts thereof.

§ *First we advertise*, that of Writers in this Argument there is none extant that hath found out any thing of worth, that I may not say, any thing sound touching this subject. Indeed Aristotle hath left unto posterity a small brief Commentary of this matter; wherein there is some acuteness, which he would have to be all can be said, as his manner is: But the mote recent Writers have written so idly, and superstitiously upon the point, that the Argument it self, through their vanity, is reputed vain and senseless.

§ *Secondly, we advertise*, that the intentions of Physicians touching this Argument are nothing worth: and that they rather lead men away from the point, than direct them unto it. For they discourse that Death is a destitution of Heat and Moisture, and therefore natural heat should be comforted and radical moisture cherish'd; as if it were a matter to be effected by Broaths, or Lettuces, and Mallows, or * Jujubs, or fine Wafer-cakes, or else with hot spices, generous wine, or the spirits of wine, or chymical oyls; all which do rather hurt, than help.

§ *Thirdly*, we admonish men that they cease to trifle, and that they

DE PRO-
LONGAN-
DO CUR-
RICILO
VITÆ;

De longi-
tud.&
Brev.vitæ;

* Arabian
Plums;

be not so credulous as to think that such a great work as this is, *to retard and turn back the course of Nature*, may be brought to perfection by a morning draught, or the use of some precious Receipt; no not with *Aurum Potabile*, or the substances of Pearls, or such like toys; but that they take it for a grounded truth, that the *Prolongation of Life*, is a great work, and which consists in many kinds of Receipts; and of an orderly course and connexion of them: And let no man be so stupid as to believe, *that what never yet was done, can be now effected, but by means yet never attempted.*

Fourthly, we admonish men, that they rightly observe and distinguish touching those Receipts which conduce to a *healthful life*, and those which confer to a *long life*. For there are many things which exhilarate the spirits, strengthen the active powers of nature, repel diseases, which yet subduct from the sum of life, and without sickness accelerate aged *Atrophie*. And there are other Receipts which conduce to the *Prolongation of life*, and the *retardation of the Atrophie of old-age*; but yet are not us'd without hazard of health: So that they who use these remedies for the *prorogation of life*, must likewise provide against such inconveniences as upon their usage may unexpectedly fall out. And thus much by way of Admonition.

§ *As for Indications*, the image, or Idea we have conceiv'd in our mind hereof, is this: Things are conserv'd and continued two ways; either in their own Identity, or by *Reparation*. In their proper Identity, as a Fly or an Ant in *Amber*; a Flower, an Apple or Wood in *Conservatories of Snow*; a dead corps in *Balsam*. By *Reparation*, as in *Flame*, and *Mechanicks*. He that goes about the work of *Prolongation of Life*, must put in practice both these kinds, (for disunited, their strength is weakned) and *Mans body* must be conserv'd after the same manner *inanimate Bodies* are conserv'd: and again, as *Flame* is conserv'd; and lastly, even as *Mechanicks* are conserv'd. *Wherefore there are three intentions for the Prolongation of Life; the Retardation of Consumption; the Integrity of the Reparation; and the Renovation of that which begun to decay and grow old.* *Consumption* is caus'd by two *Depredations*, *Depredation of innate Spirit*; and *Depredation of ambient Air*. The resistence of both is two-fold, either when the *Agents* (that is, the succ and moistures of the Body) become less *Predatory*; or the *Patients* are made less depredable. The *Spirit* is made less *Predatory*, if either it be condens'd in substance, as in the use of *Opiates*, and nitrous application, and in contristations; or be *diminished in Quantity*, as in spare, Pythagorical or Monastical Diets: or is sweetned and *refresh'd with motion*, as in ease and tranquility. *Ambient Air* is made less *Predatory*, either when it is less heated with the beams of the *Sun*, as in colder Countries; in Caves, in Hills, and in the Pillars or Stations of *Anchorites*; or when it is repell'd from the Body, as in dens-close skin; in the Plumage of birds, and the use of oyl and unguents without *Aromatick ingredients*. The *juyce* and succulencies of the Body, are made less depredable, if either they be made more indurate, or more *deny*, and *oily*: Indurate as in *austere course Diet*; in a life accustomed to cold, by strong exercises; by certain *Mineral Baths*: Roscide or dewy, as in the use of Sweet-meats, and abstinence from Meats, Salt and Acid; but especially in such a mixture

ture of drinks, as is of parts very tenuious and subtil, and yet without all acrimony or tartness. *Reparation is done by Aliments*; and Alimentation is promoted four ways: *By the Concoction of the inward Parts* for the sending forth of the nourishment; as in *Confortatives* of the Principal Bowels; *by Excitation of the outward parts*, for the attraction of nourishment, as in *due exercises* and frications; and some kind of *Unctions* and appropriate *Baths*; *by preparation of the Aliment it self*; that it may more easily insinuate it self, and in a sort anticipate Digestions, as in divers and artificial kinds of *seasoning meat*, *mingling drink*, *leavening bread*, and reducing the virtues of all these three into one; *by comforting*, the last act of *Assimilation*, as in *seasonable sleep*, and outward or *Topick Applications*: *the Renovation of that which began to wax old*, is performed two ways, either by *inteneration of the habit of the body it self*, as in the use of suppling or softning applications by *Baths*, *emplasters* and *unctions*, of such quality as may soak or insinuate into the parts, but not extract from it; or by *expurgation of the old moisture*, and *substitution of new moisture*, as in *seasonable and often purging*; *letting of blood*; *attenuating Diets*, which restore the Flower of the Body, and so much for *Indications*.

§ *As for Precepts*, although many of them may be deduced from the *Indications*, yet we thought good to set down three of the most principal. *First*, we give in *Precept* that the *Prolongation of Life*, must be expected from a prescript set Diet, rather than from any familiar regimen of Food, or the excellency of particular Receipts: for whatsoever are of such virtue, as they are able to make nature *retrograde*, are commonly more strong and potent to *alter*, than that they can be compounded together in any Medicine; much less be intermingled in familiar food. It remaineth therefore that such Receipts be administered regularly, and successively, and at set appointed times, returning in certain courses:

§ *Our second Precept is*, that the *Prolongation of life* be expected, rather from *working upon spirits*, and from a *malacissation or inteneration of Parts*, than from any kinds of *Aliment or order of Diet*. For seeing the Body of Man, and the Frame thereof (leaving aside outward accidents) three ways becomes *Passive*; namely, *from the spirits*; *from the parts*; and *from aliments*; the way of *prolongation of life*, by means of aliment is a long way about, and that by many ambages and circuits; but the ways by *working upon the spirits*, and upon the parts, are more compendious, and sooner brings us to the end desired; because the spirits are suddenly moved, both from vapours and passions, which work strangely upon them: and the Parts, by *Baths*, *Unguents*, *Emplasters*, which in like manner make way by sudden impressions.

§ *Our third Precept is*, that *Malacissation or inteneration of Parts* by outward *Topicks*, must be performed by applications *Consubstantial*, *Penetrating*, and *Stringent*. *Consustantials* are willingly entertained with a kindly imbrace, and properly intenerate and supple; *Penetrating* and insinuating remedies are the *Deferents*, as it were, of *Malacissant* and *mollifying* qualities, and convey more easily and impressedly the virtue thereof; and do themselves somewhat expand and open the Parts. *Restringsents* keep in the virtue of them both, and for a time

fix it, and also cohibite and repress perspiration; which is a thing repugnant to *Malaciffation* or *suppling*, because it sends forth the moisture; wherefore by these three (but disposed in order, and succeeding than intermixt) the matter is effected. *In the mean time* we give this caveat, that it is not the intention of *Malaciffation* by outward Topicks to nourish Parts; but only to render them more capable of nourishment: for whatsoever is more dry, is less active to assimilate. And thus much of the *prolongation of life*, which is a third part newly assigned to Medicine.

§ *Come we now to Cosmetick medicaments, or the Art of Decoration*; which hath indeed, parts Civil, and parts effeminate. For cleanness, and the *civil beauty* of the Body was ever esteemed to proceed from a modesty of behaviour, and a due reverence *in the first place* towards God, whose creatures we are, then towards society, wherein we live; and then towards our selves, whom we ought no less, nay, much more to revere, than we do any others. *But that Adulterate decoration by Painting and Cerus*, it is well worthy of the imperfections which attend it; being neither fine enough to deceive, nor handsome to please, nor safe and wholesome to use. And it is a wonder that this corrupt custom of *painting*, hath so long escaped penal Laws, both of the Church and of the State; which yet have been very severe against the excessive vanity of Apparel, and the effeminate trimming of hair. *We read indeed of Jesabel that she painted her face; but of Esther and Judith, no such matter is reported.*

2 REG. 9.

§ *Let us proceed to Athletick*, which we take in a somewhat more large sence than usually it is. For to this we refer any point of *Ability*, whereunto the body of man may be brought, or any aptitude thereunto, whether it be of *Activity*, or of *Patience*; whereof *Activity* hath two parts, *Strength* and *swiftness*; and *patience* likewise hath two parts, *Indurance of Natural wants*, and *Fortitude in torments*. Of all these we see many times notable Instances in the practice of Tumblers; in the hard fare of some Salvages; in the wonderful strength of Lunaticks; and in the constancy of many in the midst of exquisite torments. Nay, if there be any other faculty, which falls not within (as in those that Dive, that obtain a strange power of containing Respiration, and the like) we refer it to this part. And that such things may sometimes be done, is most certain: but the Philosophy and enquiry of causes touching them, is commonly neglected; for this reason, as we suppose, because men are perswaded, that such masteries and commands over Nature, are obtained either by a peculiar inbred aptness of some men, which falls not within the rules of discipline; or from a continual custom from childhood, which rather is commanded than taught. Which though it be not altogether so true, yet to what end should we note any *Deficiency*? for the *Olympick games* are down long since; and a mediocrity in these things is enough for use; but an excellency in them serveth commonly but for Mercenary ostentation.

§ *In the last place we come to Arts of Pleasure*: They, as the senses to which they refer are of two kinds, *Painting* delights the eye, especially, with an infinite number of such Arts appertaining to Magnificence about Buildings, Gardens, Garments, Vessels, Cups, Gemms, and the like. *Musick* delights the ear, which is set out with such variety and preparation

preparation of Voices ; Airs and Instruments. In ancient time water-Instruments were esteem'd the chief Organs of that Art which now are almost grown out of use. *These Arts belonging to the eye and the ear,* are principally above the rest accounted *Liberal* ; these two senses are more chaste ; the Sciences thereof more learned, as having in their train the Mathematick Art as their Hand-maid : So the one is referr'd to Memory and Demonstrations ; the other unto Manners, and the Passions of the Mind. The delight of the other senses and the Arts about which they are conversant, are in less reputation and credit, as drawing nearer to sensuality than magnificence. Unguents ; Odors ; Dainties ; Delicious fare, and Incitements to Lusts ; need rather a Censor to repress them, than a Doctor to instruct them. And it is well observed by some, *That while States and Commonwealths have been in their growth and rising, Arts military have flourish'd ; when they have been settled and stood at a height, Arts liberal ; and drawing to their declension and ruin, Arts voluptuary.* And it is to be fear'd that this age of the world being somewhat upon the descent of the wheel, inclin'd to *Arts voluptuary* : Wherefore we pass them over. With *Arts voluptuary* I couple *Practices Jocular* ; for the deceiving of the senses, may be set down as one of the delights of the senses.

§ *And now we have gone through the Knowledges concerning the Body of man (Physick, Cosmetick, Athletick and Voluptuary)* we admonish thus much by the way ; that seeing so many things fall into consideration about the *Body of man*, as *Parts, Humours, Functions, Faculties, Accidents* ; and seeing (if we could aptly do it) an entire Body should be made touching the *Body of man*, which might comprehend all these, (like to that of *the knowledge of the Soul*, whereof we shall speak anon) notwithstanding lest Arts should be too much multiplied, or the ancient Limits of Arts transpos'd, more than need must ; we receive into the Body of Medicine, *the knowledge of the Parts of mans Body, of Functions, of Humours ; of Respiration, of Sleep ; of Generation ; of the fruit of the Womb, of Gestation in the Womb ; of Growth ; of the flower of Age ; of what Hairs ; of Impinguation, and the like ;* although they do not properly pertain to those three duties of *Conservation of Health ; Cure of Diseases ; Prolongation of Life* : But because mans body is every way the Subject of Medicine. *As for voluntary motion, and sense, we refer them to the knowledge concerning the Soul ;* as two principal Parts thereof. And so we conclude *the knowledge which concerns mans Body, which is but the Tabernacle of the Soul.*

CHAP. III.

I. The Partition of *Humane Philosophy concerning the Mind, into knowledge of the inspired Essence; and into the knowledge of the sensible, or produced Soul.* § A second Partition of the same *Philosophy, into the knowledge of the Substance and Faculties of the Soul, and the knowledge of the use and objects of the Faculties.* II. Two Appendices of the knowledge concerning the *Faculties of the Soul.* § *The knowledge of Natural Divination; § And the knowledge of Fascination.* III. The Distribution of the *Faculties of the sensible Soul.* § *Into Motion; and § into Sense.*

I. **N**OW let us proceed to the Knowledge which concerns the Mind or Soul of man, out of the treasures whereof all other Knowledges are extracted. It hath two Parts, the one entreateth of the Reasonable Soul, which is a thing Divine; the other of the unreasonable Soul, which is common to us with Beasts. We have noted a little before (where we speak of Forms) those two different Emanations of Souls, which in the first Creation of them both, offer themselves unto our view, that is, that one hath its original from the *Breath of God*; the other from the *Matrices of the Elements*; for of the Primitive Emanation of the Rational Soul; thus speaks the Scripture, *Déus formavit hominem de limo terræ, & spiravit in faciem ejus spiraculum vitæ*: But the Generation of the unreasonable Soul, or of Beasts, was accomplished by these words; *Producat Aqua, Producat Terra*: And this irrational Soul, as it is in man, is the Instrument only to the Reasonable Soul; and hath the same original in us, that it hath in Beasts; namely, from the *slime of the earth*; for it is not said *God form'd the Body of man, of the slime of the earth, but God formed man*, that is the whole man that *Spiraculum* excepted. Wherefore we will stile that part of the general knowledge concerning *man's soul*, the knowledge of the *spiracle, or inspired substance*; and the other Part, the knowledge of the *Sensible or Product Soul*. And seeing that hitherto we handle Philosophy only (placing *sacred Theologie* in the close of this work) we would not have borrowed this Partition from *Divinity*, if it had not here concurr'd with the Principles of *Philosophy*. There are many and great *Precellencies of the soul of man, above the souls of beasts*, evident unto those who philosophize even according to sense: And wheresoever the concurrent Characters of such great excellencies are found, there should ever, upon good reason, be made a *specifick Difference*. Wherefore we do not altogether so well allow the Philosophers promiscuous, and confuse Discourses touching the *Functions of the Soul*; as if the *Soul of man was differenced gradually, rather than specifickly; from the soul of Beasts*; no otherwise than the Sun amongst the Stars, or Gold amongst Metals.

§ There remains another partition also to be annexed to the Knowledge in General concerning the soul or mind of man, before we speak at large of the kinds: For what we shall speak of the *species* hereafter, comprehendeth

prehendeth both the partitions; as well that which we have set down already, as this which we shall now propound. *Wherefore the second Partition may be, into the knowledge concerning the Substance and Faculties of the Soul; and into the knowledge concerning the use and objects of the Faculties.*

§ This two-fold Partition of the Soul thus premis'd, let us now come unto the species or kinds. The knowledge of the *Spiraculum*, or *inspired Essence*, as that concerning the substance of the Reasonable Soul, comprehends these Inquiries touching the Nature thereof; as whether, *it be Native, or Adventive; Separable, or Inseparable; Mortal, or Immortal; how far it is tied to the Laws of Matter, how far, not, and the like?* What other points soever there are of this kind, although they may be more diligently, and soundly inquired even in Philosophy, than hitherto they have been; yet for all this, in our opinion, they must be bound over at last, unto Religion, there to be determined and defined; for otherwise they still lye open to many errors and illusions of sense. *For seeing that the substance of the Soul was not deduced and extracted in her Creation from the Mass of Heaven and Earth, but immediately inspired from God; and seeing the Laws of Heaven and Earth are the proper subjects of Philosophy; how can the knowledge of the substance of the Reasonable Soul be derived or fetch'd from Philosophy? But it must be drawn from the same inspiration from whence the substance thereof first flow'd.*

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um.

§ The Knowledge of the *sensible or produced Soul*, as touching the substance thereof is truly enquired into; but this enquiry seems to us to be *Deficient*: For what makes these terms of *Actus Ultimus*; and *Forma Corporis*; and such like wild logical Universalities, to the knowledge of the Souls substance? For the *sensible Soul*, or the soul of Beasts, must needs be granted, *to be a Corporal substance attenuated by heat and made Invisible: I say, a thin gentle gale of wind swell'd and blown up from some flamy and airy Nature, indeed with the softness of Air to receive impression, and with the vigor of fire to embrace action; nourished partly by an oily, partly by a watery substance; spread over the Body; residing (in perfect Creatures) chiefly in the head; running through the nerves; refresh'd and repair'd by the spirituous blood of the Arteries; as Bernardinus Telesius, and his Scholar, Augustinus Donius in some points, not altogether unprofitably, have delivered it.* Let there be therefore made a more diligent enquiry touching this knowledge, and the rather for that this point, not well understood hath brought forth superstitious and very contagious opinions, and most vilely abasing the Dignity of the soul of man; of *Transmigration of souls out of one body into another; and Lustrations of souls by Periods of years; and finally of the too near affinity in every point of the soul of man, with the souls of beasts.* This soul in Beasts is a principal soul, whereof the body of Beasts is the Organ; but in man this soul is it self an Organ of the Soul Rational and may rather be called by the appellation of a Spirit, than of a Soul. And thus much of the substance of the Soul.

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DE SUB-
STANTIA
ANIMÆ
SENSIBI-
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Teles de
Ret. Nat.
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§ The Faculties of the Soul are well known, to be *Understanding; Reason; Imagination; Memory; Appetite; Will*, and all those Powers, about which the Sciences of *Logick* and *Ethick* are conversant. But in the knowledge concerning the soul, the Original of these Faculties ought to be handled

handled, and that Physically, as they are connatural with the Soul, and adhere to it: Only their *uses* and *objects* are designed to other Arts. And in this part (in our opinion) there hath been no extraordinary performance hitherto; although we do not report it as *Deficient*.

II This Part *touching the faculties of the Soul* hath two Appendices, which as they have been handled have rather presented us with smোক, than any lucid flames of truth; one of these is the Knowledge of *Natural Divination*; the other of *Fascination*.

§ *Divination* hath been anciently and fitly divided into two Parts; *Artificial* and *Natural*. *Artificial* by arguing from the Indication of signs, collects a *Prediction*: *Natural* from the internal *Divination* of the mind without the assistance of signs, makes a *Presage*. *Artificial* is of two sorts; one argueth from *Causes*; the other from *Experiments* only, by a blind way of Authority; which later is for the most part superstitious, such as was the Heathen Discipline upon the *inspection of the Intrals of Beasts*; the *Flight of Birds*; and the like: So the solemn Astrology of the Chaldeans was little better. Both the kinds of *Artificial Divination* are distributed amongst divers Sciences. The Astrologer hath his *Predictions* from the situation of the stars; the Physician hath his *Predictions*, of the approach of Death; of Recovery; of ensuing Symptomes of Diseases; from Urines; Pulses; aspect of Patients, and the like. The Politick hath his *Predictions*; *O urbem vena-lem & citò perituram, si emptorem invenerit*, The truth of which *Prophese* staid not long, being first accomplisht in *Sylla*, after in *Cesar*. Wherefore Predictions of this Nature are not pertinent to the present purpose, but are to be referred over to their proper Arts. But the *Divination Natural*, which springeth from the internal Power of the Soul, is that which we now speak of. *This is of two sorts, the one Native*; the other by *Influxion*. *Native* is grounded upon this supposition, that the mind when it is withdrawn and collected into it self, and not diffused into Organs of the Body, hath from the natural Power of its own Essence, some *Prenotion of things future*. And this appears most in sleep; Extasies; Propinquity of Death; more rare, in waking, or when the Body is healthful and strong. And this state of the mind is commonly procured and furthered by abstinencies, and those observances which do most of all retire the *Mind* unto it self from the practick functions of the *Body*: that thus redeem'd from the incumbrances of exterior ingagements, it may possess and enjoy its own Nature. *But Divination by Influxion* is grounded upon another supposition, That the *Mind* as a *Mirror* or *Glass* should take a secondary kind of *Illumination* from the fore-knowledge of God and Spirits; unto which the same State and Regiment of the *Body* which was to the first, doth likewise conduce. For the same sequestration of the mind causeth it more severely to employ its own Essence; and makes it more susceptible of *Divine Influxions*: save that the soul, in *Divinations by Influxion* is rapt with a kind of fervency and impatency, as it were of the Deity, wherewith it is possest (which the Ancients noted by the name of *sacred Fury*; but in *Native Divination*, the mind is enfranchis'd and neerer to a repose rather, and an immunity from labour.

§ *Fascination* is the Power and intensive Act of the *Imagination* upon the *Body* of another, (for of the Power of the *Imagination* upon the *Body*

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of the imaginant, we have spoken before). In this kind the *school of Paracelsus*, and the Disciples of pretended *Natural Magick*, have been so intemperate, as they have only not equall'd the force and apprehension of the *Imagination*, with the Power of *miracle-working faith*. Others, drawing nearer to the similitude of truth, when they had more intently considered the secret energies and impressions of things; the Irradiations of the senses; the transmissions of cogitations from Body to Body; the conveyances of Magnetick virtues; came to be of opinion, that much more might such impressions; Informations; and Communications be made, from spirit to spirit; being that a spirit of all other things is more powerful and strong to work, and more soft and penetrable to suffer: whence the conceits have grown, made almost popular, of the Mastering spirit; of men ominous and unlucky; of the strokes of love and envy; and of others of like Nature. Incident unto this, is the enquiry, *How the Imagination may be intended and fortified?* For if the *Imagination* fortified be of such great power, then it is material to know by what ways it may be exalted, and made greater than it self? And here comes in crookedly, and as dangerously a Palliation and Defence of a great part of *Ceremonial Magick*. For it may be a specious pretence, that Ceremonies; Characters; Charms; Gesticulations; Amulets, and the like, *do work not by any tacit or sacramental contract with evil spirits; but serve only to strengthen and exalt the imagination of him that useth them; even as the use of Images in religion hath prevail'd for the fixing of mens minds in the Contemplation of things, and the raising of the devotion of them that Pray.* But for my own judgment, if it be admitted, that the force of *Imagination* is so Potent, and that Ceremonies exalt and fortifie that Power; and be it granted, that Ceremonies are used sincerely to that intention, and as a Physical Remedy, without the least thought of inviting the assistance of Spirits by them; yet for all this, I should hold them unlawful, because they impugn and contradict that divine Edict pass'd upon man for sin, *In sudore vultus comedes panem tuum.* For this kind of *Magick* propounds those noble fruits, (which God hath set forth to be bought at the price of Labour) to be purchas'd by a few easie and slothful observances,

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III. There remain two knowledges, which refer specially to the *Faculties of the inferior or sensible Soul*, as those which do most Communicate with corporal Organs; the one is of *Voluntary Motion*, the other of *sense and sensibility*.

§ In the former of these the Inquiry hath been very superficial, and one entire part almost quite left out. For concerning the office and apt fabrick of the Nerve and Muscles, and of other parts requisite to *this Motion*, and which part of the Body rests whilst another is moved, and that the Governour and Chariot-driver, as it were, of this *Motion*, is the *Imagination*; so as dismissing the *Image* to which the *Motion* was carried, the *Motion* it self is presently intercepted and arrested (as when we walk, if another serious and fixed thought come into our mind, we presently stand still) and many other such subtilties not to be slighted, have now long ago come into Observation and Enquiry. *And how Compressions, and Dilatations, and Agitations of the Spirit* (which without question is the spring of *Motion*, should incline, excite, and enforce

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the corporal and ponderous Mass of the Parts, *bath not yet been enquired into*, and handled with diligence; and no marvel, seeing the sensible soul it self hath been hitherto taken for an *entelechie*, or *self-moving Facultie*, and some Function, rather than a substance. But now it is known to be a corporal and materiate Substance; it is necessary to be enquired, by what efforts such a pusil and a thin soft air should put in motion, such solid and hard bodies. Therefore seeing this part is *Deficient* let enquiry be made thereof.

§ *But of sense and sensibility* there hath been made a far more plentiful and diligent enquiry, both in General Treatises about them, and in Particular Sciences; as in *Perspective*, and *Musick*; how truly, is not to our purpose to deliver. Wherefore we cannot set them as *Deficients*: *Notwithstanding* there are two noble and remarkable Parts, which in this knowledge we assign to be *Deficient*; the one concerning *the difference of Perception and Sense*; the other concerning the *Form of Light*.

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DE DIFFE-
RENTIA
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§ *As for the Difference between Perception and Sense*, Philosophers should in their writings *de sensu & sensibili* have premis'd a solid and sound discovery thereof, as a matter Fundamental. For we see that there is a manifest power of *Perception* even in all Bodies Natural; and a kind of Election to embrace that which is any way allied in nature, and favourable to them; and to fly what is adverse and foreign. Neither do we mean of more subtile *Perceptions* only, as when the *Loadstone* draws unto it *Iron*; *Flame* leaps to *Bituminous Mould*; one *Bubble* of water near another *Bubble*, closeth and incorporates with it; *Rays* glance from a white object; the *Body* of a living *Creature* assimilates that which is good for it, excerneth what is unprofitable; a piece of *sponge* even when it is rais'd above the surface of the water, sucks in water, expels air; and the like. For to what end should we enumerate such instances, seeing no body plac'd neer to another, changeth the other, or is changed of it, unless a reciprocal *Perception* precede the operation. Every *Body* hath a *Perception* of the *Pores* and *Passages* by which it insinuates it self; it feels the invasion of another *Body*, to which it yieldeth; it perceiveth the remove of another *Body*, by which it was detained; when it recovers it self, it perceiveth the divulsi-
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is that they who perchance have addicted their minds to this contemplation, have in the heat of this Pursuit gone too far, and attributed *Sense to all Bodies*, that it is almost a piacular crime to *pull of a bow from a Tree*, lest it should groan and complain as *Polydore* did. But they should explore with diligence the difference of *Perception* and *Sense*, not only in comparing of *Sensibles* with *Insensibles* according to the entire body (as of *Plants*, and living *Creatures*) but also to observe in the sensible *Body*, what should be the cause that so many *Actions* should be discharg'd, and that without any *Sense* at all? Why *Aliments* are digested,

gested, egested: Humours and succulent Moistures carried upwards and downwards; the Heart and Pulse beat; the Guts as so many Shops, or Work-houses should every one accomplish his proper Work; and yet all these, and many such like are performed without *sense*? But men have not with sufficient enquiry searcht or found out of what Nature the Action of *sense* is; and what kind of Body; what delay; what Conduplication of Impression are required to this, that pain or pleasure should follow? To close this Point they do seem to be altogether ignorant of the difference betwixt *simple perception and sense*; how far perception may be made without *sense*? Nor is this enquiry a controverſie of words, but a matter of great and important moment. *Wherefore* let there be made a better *inquiry* of this knowledge, as of a matter very profitable, and of manifold use. Considering also that the ignorance of some of the ancient Philosophers touching this matter, so far obscured the light of reason, as that they thought, *there was, without any difference, a Soul infused into all Bodies*; nor did they conceive how *Motion*, with a discerning instinct, could be made with *sense*; or *sense* exist without a *Soul*.

§ *As for the Form of Light*, that there hath been made a due enquiry thereof (specially seeing men have so painfully employ'd their Studies in the *Perspectives*) may well be censur'd as a strange oversight. For neither in the *Perspectives*, nor elsewhere, is there any thing inquired concerning *Light*, of any worth or weight: The Radiations of it are handled, the Originals not: *But the placing of Perspectives amongst the Mathematicks hath begotten this defect; and others of like nature; because men have made a too early departure from Physick.* So on the other side the handling of *Light*, and the Causes thereof, in *Physicks* is commonly superstitious, as of a thing of a middle nature, betwixt natural and Diviue; in so much as some of *Plato's School* have introduced *Light* as a thing more ancient than *Matter it self*: For when the empty space was spread abroad they affirm'd, in a vain imagination, that it was first fill'd with *Light*; and afterwards with a *Body*; whereas *Holy Writ* sets down plainly *the Mass of Heaven and Earth to be a dark Chaos before the Creation of Light.* But what are handled Physically, and according to sense, of this subject, presently descendeth to *Radiations*; so as there is very little Philosophical enquiry extant touching this point. And men ought to submit their Contemplations a while, and to enquire what is common to all *Lucid Bodies*, as of the *Form of Light*: For what an immense difference of Body is there (if they may be considered according to their dignity) betwixt the Sun and the rotten Wood, or the putrid scales of Fish? They should likewise make enquiry, what should be the Cause why some things take fire, and once throughly heated cast forth a *Light*; others not? Iron, Metals, Stones, Glass, Wood, Oyl, Tallow by fire, either cast forth a *Flame*, or at least grow *Red*: But *Water* and *Air* heated with the fury of the hottest Flames, to the highest degree they are capable of, acquire no such *Light*, nor cast forth any Splendor. If any man think, it therefore thus comes to pass, because it is the property of fire to *give light*; but *Water* and *Air* are utter enemies to *Fire*; sure he was never rowed with Oars in a dark night upon salt waters, and in a hot season; where he might have seen small drops of water rebounding from the clashing of the Oars, to

*
RADIX
PERSPECTIVÆ
CIVILIS
SIVE DE
FORMA
LUCIS,

Ficin.
Card. de
Cusa.

Gen. i.

sparkle and cast forth a light: Which is likewise seen in the fervent froath of the Sea which they call the Sea-longs. And what affinity with flame and fired matter have the Cicindulae, the Luciola, and the Indian Fly, which cast a light over a whole arched Room; or the eyes of certain living Creatures in the dark; and Sugar, as it is grated or broken; or the sweat of a horse hard ridden, in a foultry night; and many more? Nay, many have understood so little in this point, as many have thought the sparks from a flint to be attrited Air. But when the Air is not fired with heat, and apparently conceives Light, how comes it to pass, that Owls and Cats, and many other Creatures see in the night? So that it must needs be (seeing vision cannot be conveyed without light) that there is a native and inbred light in Air, although very feeble and weak; yet such as may be proportioned to the Optick Beams of such Creatures, and may suffice them for sight. But the cause of this evil, as of many more, that men have not drawn forth the common Forms of things Natural, from particular Instances; which is that we have set down as the proper subject of Metaphysick; which is it self a part of Physick, or of the knowledge of Nature. Therefore let there be enquiry made of the Form and Originals of Light, and in the mean time, it may be placed among Deficients. And thus much of the Knowledge concerning the substance of the Soul, Rational and Sensible, with their Faculties, and of the Appendices of the same Knowledge.

THE

THE
 Fifth Book
 OF
 FRANCIS L. VERULAM
 VICOUNT S^c ALBAN,
 OF THE
 Dignity and Advancement
 OF
 LEARNING.

To the KING.

CHAP. I.

- I. The Partition of the Knowledge, which respecteth the Use, and Objects of the Faculties of the Mind of Man, into Logick, and Ethick.
 II. The Division of Logick into the Arts, of Invention; of Judgement; of Memory; and of Tradition.

 HE Knowledge respecting the understanding of Man (Excellent King) and that other respecting his Will, are, as it were, Twins by Birth: For the Purity of Illumination, and the Liberty of will began together; fell together: Nor is there in the Universal Nature of things so intimate a Simpathy, as that of Truth and Goodness. The more shame for Learned Men, if they be for Knowledge like winged Angels; for base Desires, they be like serpents which crawl in the Dust, carrying indeed about them Minds like a Mirror or Glafs; but menstruous and distain'd.

§ We come now to the Knowledge which respecteth the use and objects of the Faculties of the Mind of Man. This hath two Parts, and they well known, and by general consent received, Logick and Ethick: Save that we have a little before set at liberty Civil Knowledge, which commonly was taken in as a Part of Ethick; and have made it an entire Knowledge of man congregat or in society; handling here only man segre-

gate. *Logick intreateth of the Understanding and Reason; Ethick of the Will, Appetite and affections; the one produceth Decrees; the other Actions.* It is true that the *Imagination* in both Provinces, Judicial and Ministerial, performs the Office of an Agent or Nuncius, or common Attorney. For *sense* sends over all sorts of Ideas unto the *Imagination*, upon which, Reason afterwards sits in Judgement: And *Reason* interchangeably sends over selected and approved Ideas to the *Imagination*, before the Decree can be acted. For *Imagination* ever precedes voluntary motion and incites it; so that *Imagination* is a common reciprocal Instrument to both: Saving that this *Janus* is bifronted, and turns faces: For the face towards *Reason* hath the print of *Truth*; but the face towards *Action* hath the print of *Goodness*: which nevertheless are faces,

Ovid.
Met.

— *Quales decet esse sororum.*

Polit. 1.

Neither is the *Imagination* a meer and simple Messenger, but is invested with, or at leastwise usurpeth no small Authority, besides the duty of the message: For it is well said by *Aristotle*, *That the Mind hath over the Body that command which the Lord hath over a bond-man; but the Reason hath over the Imagination that command which a Magistrate hath over a free Citizen*, who may come also to rule in his turn. For we see that in matters of *Faith* and *Religion*, the *Imagination* mounts, and is elevated above *Reason*; not that *Divine Illumination* resideth in the *Imagination*; (nay, rather in the high Tower of the mind, and understanding) but, *as in virtues Divine, grace makes use of the motion of the will; so in Illuminations Divine, grace makes use of the Imagination*: Which is the Cause that *Religion* sought ever an access, and way to the *Mind*, by *Similitudes, Types, Parables, Visions, Dreams*. Again, it is no small Dominion the *Imagination* hath in persuasions, insinuated by the power of *Eloquence*: for where the minds of men are gently intreated, inflamed, and any way forcibly won by the smooth Artifice of speech, all this is done by exalting the *Imagination*, which growing hot and impatient, not only triumphs over *Reason*; but in a sort offers violence unto it; partly by blinding, partly by extimulating it. Nevertheless I see no reason why we should depart from the former Division: For the *Imagination* commonly doth not produce Sciences; for *Poesie* which hath ever been attributed to the *Imagination*, is to be esteemed rather a play of the wit, than a knowledge. As for the power of the *Imagination* in things *Natural*, we have assigned that, a little before, to the *Doctrine de Anima*. And for the affinity it hath with *Rhetorick*, we think it fit to refer it to the Art it self, whereof we shall intreat hereafter.

Sen. alicu-
bi.

& This Part of *Humane Philosophy* which is *Rational* or respecting *Logick*, is to the Taste and Palate of many Wits, not so delightful; and seemeth nothing else but a net and snare of thorny subtilty. For as it is truly said, *that knowledge is animi Pabulum*; so in the nature of mens appetites, and election of this food, most men are of the taste and stomach of the *Israelities* in the Desert, that would fain have turned *ad ollas Carnium*, and were weary of *Manna*; which though it were *Celestial*, yet seemed it less nutritive and comfortable. So generally those *Knowledges* relish best, that have an infusion somewhat more esculent of flesh in them; such

such as are *Civil History, Morality, Policy*, about the which mens affecti-
ons; Praises, Fortunes do turn, and are conversant: But this same *lu-*
men siccum, doth parch and offend most mens watry and soft natures.
But if we would measure and value things according to their proper
worth, *Rational Sciences are the keys of all other Arts; and as the Hand*
is the Instrument of Instruments; the Mind, the Form of Forms; so
these knowledges are to be esteemed the Art of Arts. Neither do they
direct only; but likewise strengthen and confirm; as the use and habit
of shooting, doth not only enable to shoot a nearer shoot; but also
to draw a stronger Bow.

II. *Arts Logical or intellectual are four in number*, divided according
to the ends whereunto they are referred: For mans labour in *Ratio-*
nal Knowledges is, either to *invent that which is sought; or to judge what*
is invented; or to retain that which is judg'd; or to deliver that which is
retained: So as there must needs be so many *Rational Sciences; Art of*
Inquiry or Invention; Art of Examination or Judgement; Art of Custody
or Memory; and Art of Elocution or Tradition; whereof we will
speak, of every particular apart.

CHAP. II.

I. The Partition of the *Art of Invention into the Inventive of Arts:*
and of Arguments. § The former of these, which is the more
eminent, is *Deficient.* II. The Division of the *Inventive Art of*
Arts, into literate Experience. § *And a new Organ.* III. A De-
lineation of *Experience Literate.*

I. **I**Nvention is of two kinds, much differing; the one of *Arts and Sci-*
ences; the other of Arguments and Speeches. The former of these
I report to be wholly *Deficient*, which seems to me to be such a *Defi-*
ence, as if in the making of an *Inventory*, touching the estate of a *De-*
funct, it should be set down, of *ready money nothing:* For as *money*
will fetch all other commodities; so all other *Arts* are purchas'd by
this Art. And as the *West Indies* had never been discovered, if the use
of the *Mariners Needle* had not first been discovered, though those *Re-*
gions be vast, the *Verfor* is a small Motion: So it cannot be found
strange, if in the *discovery and advancement of Arts*, there hath not
been made greater *Progression*, seeing the *Art of Invention and Perlu-*
stration hitherto was unknown.

§ That this part of knowledge is wanting stands plainly confessed.
For first *Logick* doth not profess, nay, not pretend to *invent* either *Arts*
Mechanical, or *Arts* (as they call them) *Liberal;* nor to elicit the
Operations of the one, or the *Axioms* of the other; but speaks to men
as it were in *Passage*, and so leaves them with this instruction, *cuiq; suâ*
arte credendum. *Celsus* a wise man, as well as a *Physician* (though it
be the custom of all men to be copious in the commendation of their
own Profession) acknowledgeth it gravely and ingeniously, speaking of
the *Emperical and Dogmatical Sects of Physicians, That Medicines and*

*
EXPERI-
ENTIA LI-
TERATA,
SIVE VE-
NATIO
PANIS:

Arif. Mea
ral. 1.

Cures

De Re
Medica.In Timæo.
Phileb. a-
libi.

Cures were first found out, and then after the Reasons and Causes were discovered: not the other way, that the Causes first extracted from the nature of things, gave light to the invention of Remedies. But Plato often notes it; That particulars are infinite; again, that the highest Generalities give no sufficient Direction; and that the Pyth of all Sciences, whereby the Arts-man is distinguished from the Inexpert, consisteth in middle Propositions, which experience hath delivered and taught in every particular Science. And therefore we see, that they which discourse of the first Inventors of things, and the Originals of Sciences, have celebrated rather Chance than Art; and have brought in Beasts, Birds, Fishes, Serpents, rather than Men, as the first Doctors of Sciences.

Virg. Æn.
12.

*Diſtammum Genetrix Cretæâ carpit ad Ida,
Puberibus Caulem foliis & flore comantem
Purpureo, non illa feris incognita Capris
Gramina, cum tergo volucres hæſere ſagittæ.*

So that it was no marvail (the manner of Antiquity being for to consecrate Inventors of things profitable) that the Ægyptians, an ancient Nation, to whom many Arts owe their Beginnings, had their Temples full of the Idols of Brutes, but almost empty of the Idols of men,

Virg.
Æn. 8.

*Omnigenumq; Deum monstra & Latrator Anubis,
Contra Neptunum; & Venerem, contraq; Minervam, &c.*

Ovid. Hæ-
rat &c.

And if you like better, from the Tradition of the Grecians, to ascribe the first invention of Arts to men; yet you cannot say that Prometheus applied his contemplation on set purpose to the invention of Fire; or that when he first strook the flint he expected Sparks; but that he fell upon this experiment by chance, and as they say, — *furtum Jovi fecisse*; so as for the Invention of Arts we are more beholding to a wild Goat for Chirurgery; or to a Nightingal for modulations of Musick; the Ibis for Clysters; to a Poilid that flew open for Artillery; and to say in a word, to Chance, or any thing else more than to Logick. Neither is the form of Invention, which Virgil describes, much other,

Pamirol.
lus Rec.
Met. Pa. 2.

Virg. G. 1.

*Et varias usus meditando extunderet Artes
Paulatim——*

Oratio.
pro L.
Cor. Bal
bu.

For here is no other method of Invention propounded, than that which brute Beasts are capable of, and often put in ure, which is a most intertive sollicitude about some one thing, and a perpetual practice thereof; which the necessity of their Conservation imposeth upon such Creatures; for Cicero saith very truly, *usus uni rei deditus, & naturam & artem sape vincit*, Therefore if it be said of men,

Virg. G. 1.

*Labor omnia vincit
Improbis, & duris urgens in rebus egestas.*

It is likewise said of Beasts,

Quis expeditivit Psittaco suum Καίσε ;

Perf. Prol.

Who taught the Raven in a droughth to throw Pebbles into a hollow tree, where by chance she spied water, that the water might rise so as she might come to it? Who taught the Bee to sail through such a vast sea of Air, to the Flowers in the Fields; and to find the way so far off to her Hive again? Who taught the Ant to bite every grain of Corn that she burieth in her Hill, lest it should take root and grow, and so delude her hope? And if you observe in *Virgil's* verse, the word *extundere*, which imports the *Difficulty*, and the word *Paulatim*, which imports the *slowness*; we are where we were, even amongst the *Egyptian Gods*, seeing hitherto men have made little use of the faculty of *Reason*, none at all of the *duty of Art*, for the *discovery of Inventions*.

Plin. Nat. H.

§ Secondly, if this which we affirm, be well considered, it is demonstrated by the *Form of Induction* which Logick propounds, namely by that *Form of Inference*, whereby the Principles of Sciences are found out and proved; which, as it is now framed, is utterly vitious and incompetent, and so far from perfecting nature, that it rather perverts and distorts it. For he that shall exactly observe how this *Æthereal Dew of Sciences*; like unto that the Poet speaks of,

Aerei mellis Celestia dona,

is gather'd (seeing that even Sciences themselves are extracted out of particular examples, partly Natural, partly Artificial, or from the Flowers of the Field and Garden) shall find that the mind, of her own nature and inbred disposition, doth more ingeniously, and with better Invention, Act an *Induction*, than Logicians describe it. For from a *nude enumeration of Particulars* (as Logicians use to do) without an Instance Contradictory, is a vitious Conclusion; nor doth such an *Induction* infer more than a probable Conjecture. For who will take upon him, when the particulars which a man knows, and which he hath mention'd, appear only on one side, there may not lurk some particular which is altogether repugnant? As if *Samuel* should have rested in those sons of *Ishay*, which were brought before him in the house; and should not have sought *David*, which was absent in the field. And this *Form of Induction* (to say plainly the truth) is so gross and palpable, that it might seem incredible, that such acute and subtil wits as have exercis'd their meditations in these things, could have obtruded it upon the world; but that they hasted to Theories, and Dogmaticals; and from a kind of pride and elation of mind despised *particulars*, specially any long stay upon them. For they have used these examples and particular instances, but as *Sergeants and Whiffers, ad summovendam turbam*, to make way and room for their opinions; and never advis'd with them from the beginning; that so a legitimate and mature deliberation, concerning the truth of things, might be made. Certainly it is a thing hath touch'd my mind with a pious and religious wonder, to

see the same steps leading to error, troden in divine and humane enquiries. For as in the apprehending of divine truth, men cannot endure to become as a child; so in the apprehending of humane truth, for men come to years, yet to read, and repeat, the first Elements of *Inductions*, as if they were still children, is reputed a poor and contemptible employment.

§ Thirdly if it be granted, that the *Principles* of Sciences may be rightly inferr'd from the *Induction*, which they use, or from sense and experience; yet nevertheless, certain it is, that inferiour Axioms, cannot rightly and safely be deduced, by *Syllogism* from them, in things of nature, which participate of matter. For in *Syllogism* there is a reduction of Propositions to *Principles* by middle Propositions. And this Form, whether for *Invention*, or for *Proof*, in Sciences Popular, as *Ethicks*, *Politicks*, *Laws*, and the like, takes place; yea, and in Divinity; seeing it hath pleased God of his goodness, to accommodate himself to mans capacity: but in Natural Philosophy where nature should be convinc'd and vanquish't by deeds, and not an Adversary, by Argument; truth plainly escapes our hands: *because that the subtilty of the operations of Nature, is far greater than the subtilty of words.* So that the *Syllogism* thus failing, there is every way need of help and service, of true and rectified *Induction*, as well for the more general Principles, as inferiour Propositions. For *Syllogisms* consist of Propositions, Propositions of words, words are the currant tokens or marks of the Notions of things; wherefore *if these Notions (which are the souls of words)* be grossely, and variably abstracted from things, the whole building falls. Neither is it the laborious examination either of Consequences, Arguments, or the verity of Propositions, that can ever repair that ruine; being the error is, as the Physicians speak, in the *first digestion*; which is not rectified by the sequent functions of Nature. And therefore it was not without great and evident Cause, that many of the Philosophers, and some of them, some of singular note, became *Academicks*; and *Scepticks*; which took away all *certainty of knowledge or of Comprehensions*; and denyed that the knowledge of man extended further than apparence and probability. It is true that some are of opinion, that *Socrates*, when he put off certainty of science from himself, did this but by a form of *Irony*, & *scientiam dissimulando simulasse*; that is, that by renouncing those things which he manifestly knew, he might be reputed to know even that which he knew not; neither in the latter Academy, which *Cicero* embraced, was this opinion of *Acatalepsie* held so sincerely: For all those which excell'd for eloquence, commonly made choice of this Sect, as fitter to give glory to their copious speech, and variable discourse both ways; which was the cause they turn'd aside from that streight way by which they should have gone on to truth, to pleasant walks made for delight and pastime. *Notwithstanding* it appears that there were many scatter'd in both Academies, the old and new (much more among the *Scepticks*) that held this *Acatalepsie* in simplicity and integrity: But here was their chief error, that they charged the *Perceptions* of the *Senses*, whereby they did extirpate and pluck up Sciences by the roots. For the senses although they many times destitute and deceive men, yet assisted by much industry they may be sufficient for Sciences; and that not so much by the help of *Instruments* (though these

Cic. in Acad.

In Acad.
Q.

are in some sort useful) as of experiments of the same kind, which may produce more subtil objects, than for the faculty of sense, are by sense comprehensible. And they ought rather to have charged the defects in this kind upon the errors, and contumacie of the mind, which refuseth to be pliant and morigerous to the Nature of things; and to crooked demonstrations and rules of arguing and concluding, ill set down and propounded from the *Perception of Sense*. This we speak not to disable the mind of man; or that the business should be abandoned; but that apt and proper assistances may be acquired; and applied to the understanding, whereby men may subdue the difficulties of things, and the obscurity of Nature. *For no man hath such a steadiness of hand by nature or practice, that he can draw a strait line or make a perfect circle with his hand at liberty, which yet is easily done by rule or compass.* This is that very business which we go about and with great pains endeavour, *that the mind by the help of Art might be able to equal Nature;* and that there might be found out an Art of Discovery, or Direction, which might disclose, and bring to light other Arts, and their Axioms and Works. This upon good ground we report *Deficient*.

II This Art of *Discovery* (for so we will call it) hath two parts; for either the Indication is made from *Experiments to Experiments*; or from *Experiments to Axioms*; which may likewise design *new Experiments*; whereof the former we will term, *Experientia Literata*; the later, *Interpretatio Naturæ*, or *Novum Organum*. Indeed the former (as we have touched heretofore is not properly to be taken for an *Art*, or a part of Philosophy, but a kind of *sagacity*; wherefore we sometimes call it *Venatio Panis*, borrowing the name from the Fable. *But as a man may go on his way after a three-fold manner; either when himself feels out his way in the dark; or being weak-sighted is led by the hand of another; or else when he directs his footing by a light:* So when a man essays all kind of *Experiments* without sequence or method that is a meer palpation; but when he proceeds by direction and order in *Experiments*, it is as if he were led by the hand; and this is it which we understand by *Literate Experience*: For the *light it self*, which was the third way, is to be derived from the *Interpretation of Nature*, or the *New Organum*.

III. *Literate Experience*, or the *Hunting of Pan* shews the divers ways of making *Experiments*: This (seeing we have set it down as *Deficient*, and that it is a matter not altogether so plain and perspicuous) we will according to our manner and design give some light touches and shadows of it. The manner of *making Experiment* chiefly proceeds; either by *variation of the experiment*; or by *Production of the Experiment*; or by *translation of the Experiment*; or by *inversion of the Experiment*; or by *compulsion of the experiment*; or by *Application of the Experiment*; or by *Copulation of the Experiment*; or else by the *lots and chance of the Experiment*. And all these are limited without the terms of any *Axiom of Invention*: For that other part of the *New Organ* takes up and containeth in it all *Transition of Experiments into Axioms*; or of *Axioms into Experiments*.

§ *Variation of Experience* is first practis'd upon *Matter*; that is when the *Experiment* in things already known commonly adhereth to such a *kind of matter*; and now it is tried in other things of like kind; as

the *making of Paper* is only tried in linen, and not in silk, (unless perchance amongst the Chineses; nor yet in stuffs intermixt with hair and bristles, of which is made that which we call chame-lot; nor yet in woollen, cotton, and skins, although these three last seem to be more Heterogeneous, and so rather may become useful mingled, than separate: So insition in fruit-Trees, is practis'd, but rarely tried in Trees wild; although it is affirm'd that an Elm grafted upon an Elm, will produce wonderful shades of leaves. Insition likewise in flowers, is very rare, though now the Experiment begins to be made upon musk-Roses, which are successfully inoculate upon common Roses. So we place the *variation in the Part of a thing amongst the variations in Matter*. For we see a scion, or young slip grafted upon the trunk of a tree, to shoot forth more prosperously, than if it had been set in earth: And why, in like manner, should not the seed of an Onion inserted into the head of another Onion while it is green, germinate more happily than if it had been sown in the bare earth? And here the *Root* is varied for the *Trunk*, that the thing may seem to be a kind of insition in the root. *Secondly, the variation of an Experiment may be made in the efficient*. The *beams of the Sun* through burning-Glasses are so fortified, and intended to such a degree of heat, that they are able to set on flame any matter, which is apt easily to conceive fire: Now whether *may the beams of the Moon*, by the same Glasses be actuated by some weak degrees of warmth; that we may see whether all heavenly Bodies be hot in power? *So bright and radiant heats* are exalted by Glasses: Whether are *gloomy and opaque heats* (as of stones and mettals, before they be made burning hot by the force of fire) subject to the same impression, or are they rather in this some portions of light? So Amber, and Jet, or an Aggat chafed draw unto them straw; whether warmed at the fire will they do the like? *Thirdly, the variation of an Experiment may be made in Quantity*, concerning which a very diligent care is to be taken, being it is encompassed with many errors. For men are of opinion that if the *Quantity be augmented and multiplied, the virtue is proportionably augmented and multiplied*; and this commonly is with them a Postulatum, and a supposed truth, as if the matter were a Mathematical certitude; which is utterly untrue. *A globe of Lead, or a pound in weight* let fall from a Tower, say, it descends to the earth in the space of ten Pulses; whether will a *Globe of two pound weight* (in which that force of Motion, which they call Natural, should be doubled,) light upon the earth in the space of five Pulses? But that Globe shall come down almost in an equal space of time with this, and shall not be accelerated according to the measure of *Quantity*. So (imagine,) one dragm of Sulphur mingled with half a pound of Steel, it will make it fluid and liquid; Will therefore an ounce of Sulphur suffice to the dissolving of four pounds of Steel? But that follows not; *For it is certain that the obstinacy of the matter in the Patient is more encreas'd by Quantity, than the Activity of the virtue in the Agent*. Besides, too much, as well as too little frustrates the effect: For in the excoctions and depurations of Mettals it is a familiar error, that to advance excoction, they augment the heat of the Furnace, or the *Quantity of the Injection*; but if these exceed due proportion, they hinder the operation; because through their force and acrimony, they turn much of the

the pure Metal into fumes, and carry it away; so as there is a loss in the Metall; and the mass which remains through the emission of the Spirits becomes more obstinate and indurate. *Men should* therefore remember the mockery of *Æsop's* houswife, who conceited that by doubling her measure of Barley, her Hen would daily lay her two eggs: But the Hen grew fat and laid none. It is not altogether safe to rely upon any Natural experiment, before proof be made *both in a lesser, and greater Quantity.*

§ *Production of an Experiment is of two sorts, Repetition and Extension; namely when the Experiment either is iterated; or driven to a kind of subtilty.* Example of *Repetition* may be this; the spirit of wine is made of wine once distilled, and it is much more quick and strong than wine it self; will likewise the spirit it self of wine distilled, or sublimated, proportionably exceed it self in strength? But *Repetition* also is not without deceit; for neither doth the second exaltation equal the excess of the first; and many times by *iteration of the Experiment* after a certain state, and height of operation, Nature is so far from a further progression, as she rather falls into a relapse. Wherefore the *experiment* must be made with Caution and judgment. So *Quick-silver* in linen, or else in the midst of moulten Lead when it begins to grow cold, the *Quick-silver* inserted is stupified, and is no longer fluid; will the same *Quick-silver* if it be often so practis'd upon, become so fixt as to be made malleable? The example of *extension* may be this, *water placed upwards*, and made pensile; and by a long neb of a glass dipt in wine, mixt with water, will unmingle, the water from the wine, the wine leasurely ascending, and setting in the top; the water descending, and setting in the bottom: Now as wine and water which are two divers bodies are separate by this device; may the more subtil parts of wine in like manner, which is an entire body, be separate from the more gross, that so there may be a distillation, as it were, by weight; and that there may be found floating in the top, a substance nearest to the spirit of wine, but perchance more delicate? So the Loadstone draweth Iron solid, and entire, unto it; will a piece of a Loadstone, plunged into dissolv'd parcels and fragments of Iron, allure the Iron unto it, and cover it self with it? So *the versor of a Mariners needle* applies it self to the Poles of the world: Doth it do this after the same manner, and upon the same consequence whereby Celestial Bodies move? Namely if you should place the Needle in a contrary posture, that is, in the South-point, and there stay it a while, and then cease your forcing it, and leave it to it self; would this *Needle* turn it self perchance to the North; and chuse rather to wheel about by the West into its desired natural site, than by the East? So *gold imbibeth Quick-silver* which is contiguous to it; doth the gold ingulf, and suck up this *Quick-silver* into it self without extension of its substance, that it becomes a Mass more ponderous than gold it self? So *some men subminister helps to their memories* by setting up Images and Pictures of Persons in certain rooms; would they attain the same end, if (setting aside such Images) they should effigiate to themselves an Idea of their gestures and habits. And thus much of the Poduction of an experiment.

§ *The translation of an experiment is three-fold, either from Nature, or chance into Art; or from Art, or one Practice into another; or from*

Panciro-
lus par. 2.

a part of some Art, into a diverse part of the same Art. Of Translation from Nature, or chance into Art, there are innumerable examples; for that almost all Mechanical Arts owe their originals from slender beginnings presented by Nature or Chance. It is a receiv'd Proverb, *That Grapes consorted with Grapes sooner come to maturity*: Which from the Nature of mutual assistance and friendship grew popular. But our makers of Syder, which is a wine of Apples, do well imitate this: For they provide that they be not stamp or prest, before, by being cast into heaps for a time; they mature by mutual contact; whereby the acidity and tartness of the liquor is corrected. So the imitation of Artificial Rainbows by the spiss aspersions of little drops, is by an easie derivation from natural Rain-bows composed of a dewy Cloud. So the manner of distilling might be taken either from above, as from showers or dew; or from that homely experiment of Drops adhering to Covers put upon Pots of boyling water. And a man would have been afraid to have imitated Thunder and Lightning, if the Pot-lid of that chymick Monk had not, by being tost up into the air, instructed him. But the more plentiful this experiment is of examples, the fewer we need to produce. And if men would be at leisure to employ their studies in the inquiry of things profitable; they should view attentively, by degrees and of set purpose all the workmanship, and the particular workings of Nature; and perpetually, and thoroughly meditate with themselves, which of those may be transfer'd to Arts, *For Nature is the Mirror of Art*: And the experiments are as many which may be translated from Art into Art; or from one Practice into another, though this is not so much in use: For nature every way is obvious to all men; but Arts appropriate to particular Professors, are only known to them. Spectacles are invented to help a weak sight; might there be contrived an instrument which fastned to the ear, might help such as are thick of hearing? So embalming, and honey conserve dead Corps; might not some of those ingredients be transfer'd into a medicine, which might be useful to bodies alive? So the practice of Seals upon wax; cements for walls, and upon Lead is ancient; but this invention shewed the way to Impression upon Paper, or the Art of Printing. So in the Art of Cookery, salt seasons flesh, and that better in Winter, than in Summer: Might not this be profitably translated to Baths and their temperament, as occasion shall require; either to impress some good moisture, or extract some peccant humour. So salt in the new-found experiment of Artificial Conglaciations is found to have great power to condense: Might not this be transfer'd to the condensation of Metals; seeing it is known long since that strong-waters, being composited of some kinds of salts, have a power to deject and precipitate small sands of Gold out of certain Metals, not so dense and compact as Gold? So painting revives the memory of a thing, by the Image of a Picture: Is not this traduced into an Art, which they call the Art of Memory? Let this in general serve for admonition; that nothing can so much conduce to the drawing down, as it were, from heaven, a whole showr of new and profitable Inventions, as this; that the experiments of many Mechanick Arts, may come to the knowledge of one man, or some few, who by mutual conference may whet and sharpen one another; that so by this, which we call Translation of Experiments, Arts may nourish, and as

it were, by a commixture, and communication of Rayes, inflame one the other. For although the rationall way by an artificial *Organum*, promise far greater matters; yet nevertheless this *sagacity by literate experience*, may in the mean project and scatter to the benefit of man (as missive Donatives amongst the Ancients) many rudiments to knowledge, which may be had at hand. *There remains the Translation of a Part of Art into another part diverse from it*, which little differs from the *Translation of Art into Art*: But because many *Arts* exercise great spaces, so as they may very well sustain a *Translation* within the limits of their own operations; we thought good to annex this kind of *Translation*; specially seeing it is in some *Arts* of very great import. For it maketh much to the advancement and amplification of the Art of Physick; if the *Experiments* of that part of Medicine concerning the *Cures of Diseases*, be transfer'd to those Parts concerning the *Regiment of Health*, and the *Prolongation of Life*. For if some excellent *Opiate* be of that force and virtue, as to repress and assuage the raging inflammation of the spirits, in a pestilential Fever; let no man question, but that a like receipt by a due proportioned Dose made familiar, may in some degree put back and retard inflammation, which grows and creeps upon us by age. Thus much for the *Translation of Experiments*.

§ *Inversion of Experiment* is, when the contrary to that which is by *Experiment* manifest, is tried: For example, *Heat by Glässes is intended*; is cold so too? So *Heat* when it diffuseth it self is yet rather carried upwards: Is cold likewise in diffusing it self carried rather downwards? For instance, take a small Bar of Iron, and heat it on one end, then set it upright, (that end which is heated placed downwards) laying your hand upon the end, it will presently burn your hand; but now inverse the Bar, placing the hot part upwards, and your hand upon the part which is downwards, and you shall not feel the heat so soon by many Pulses: Whether or no, if the Bar was heated all over, and one end should be moistned with snow, or with a sponge dipt in cold water; if the snow or sponge were applied to the part which is upward, would (I say) the cold sooner pierce downward, than if the snow or sponge placed at the lower end, the cold would shoot upward. So the *Beams of the Sun* rebound from a white upon a black are congregate: Whether are shadows also disperfed upon white, and united upon black? The Experiment we see made in a dark room, the light being let in thorow a narrow chink only, where the Images of things which are without, are taken upon white Paper, not upon black. So a vein is opened in the fore-head for the Megrin, or Head-ach. Must also the Hemicrane be scarified for the *Soda*; or the pain of the head in general? So much for the *Inversion of Experiment*.

§ *Compulsion of Experiment*, is when *Experiment* is urged, and extended to annihilation, or privation of the vertue. For in other kinds of hunting, the game is only taken, but in this kill'd. Example of *Compulsion* is this; The Loadstone draws Iron, inforce therefore the Iron, or vex the Loadstone, so as the vertue of attraction be stifled or expir'd: As, suppose the Loadstone were burnt or macerate in strong waters, whether will it forego, or abate its vertue? Contrarywise, if steel or Iron be reduced into *Crocum Martis*, or into prepar'd steel, as they call it; or be dissolved in *Aqua Fortis*; will the Loadstone still allure them?

Again,

Again, the Loadstone draws Iron through all interpos'd Bodies that we know, as Gold; Silver; Glass, &c. Fix therefore some medium upon it (if it may be) that may intercept, and arrest its virtue. Make a trial of Quicksilver; of Oyl; Gums; a burning coal; and the like, which yet have not been experimented. So there have been brought in of late certain Perspectives, which multiply after a strange manner the minutest visibles: Press the use of them, either upon small objects, as they may not be able to work upon; or upon so vast, as they may be confounded in working: As whether they can clearly discover those moats in Urine, which otherways could not be discern'd? Whether in Jewels, every way pure and spotless, they can make the grains and imperceptible clouds to become visible? Whether can they expose to view the moats in the Sun (which are untruly charged upon Democritus for his Atoms, and the Principles of Nature) as if they were great Bodies? Can they so distinguish to the sight the grosser dust made of Ceruss, and Vermilion, that the small grains may appear; here the red, there the white? Again, can they multiply greater Figures (imagine a face; an eye, or so) to the same bigness they can a flea, or a little worm? Can they make a piece of Cypress, or Cobweb-Lawn appear so full of holes, as if it were a Net? But we stay the less upon the Compulsions of Experiments because commonly they fall not within the limits of literate experience; but are rather refer'd to Causes; and Axioms; and the *New Organum*. For wheresoever there is a Negative; Privative; or exclusive faculty; there is already some light given to the *Invention of Forms*. Thus far of the *Compulsion of Experiment*.

Hippoc.
Epist. La-
ert. in vi-
ta Plin.
Lib. 30.

§ *Application of Experiment is nothing else than a witty Translation of it to some other profitable Experiment.* Example may be this; All Bodies have their own dimensions, and their own weights: Gold is of greater weight, of less dimension, than Silver; Water than Wine. From this is traduced a profitable Experiment; that from a just weight and measure being taken, you may know how much Silver hath been mixt with Gold; how much Water with Wine; which was that celebrated *Εύρημα* of Archimedes. So flesh sooner putrifies in some Cellars, than it doth in others. It will be of use to make application of this *Experiment* to the finding out of Airs, more or less healthful, for habitation; namely, there where flesh is longest preserv'd from putrefaction. The same may be applied to the discovery of healthful, or pestilential seasons of the year. But there are innumerable examples of this Nature: Only let men awake, and perpetually fix their eyes, one while, on the nature of things; another while, on the application of them to the use and service of mankind. So much concerning the *Application of the Experiment*.

§ *Copulation of Experiment is the Links and Chain of Application; when as things, single, and separate had been to little use, are, (connexed) of force and efficacy.* For example, you desire to have late Roses or fruit; this is effected if you pull off the more early buds when they are newly knotted; the same is done, if you lay the roots bare until the spring be well come on, and expose them unto the open Air; but it will take the better, if you joyn both these practices of putting back germination. So Ice and Nitre do much conduce to refrigeration;

tion; but commixt, together much more. But this experiment is clear of it self, notwithstanding here may covertly a fallacy lie hid, (as there may in all other effects, and conclusions where Axioms are wanting) if the *Copulation* be made of things which work after a different, and as it were, repugnant manner. And so much for *Copulation of Experiment*.

§ *There remain the Chances, or Fortunes of Experiment.* This is altogether an irrational, and as it were, a passionate manner of experimenting; when you have a mind to try a conclusion not for that any reason, or other Experiment induceth you to it; but only because the like was never attempted before. Yet I do not know whether or no, in this kind, there may not lie hid some secret of great use, if you try Nature every way. For the wonders of Nature commonly lie out of the high road, and beaten paths; so as the very absurdity of an attempt may sometimes be prosperous. But if reason go along with this practice; that is, that it is evident that such an Experiment was never yet tried; and yet there is great reason why it should be attempted; then it is a choice *Experiment*, and searcheth the very bosom of Nature. For Example: In the operation of Fire upon some Natural Body, one or other of these effects hitherto ever comes to pass; as that either something flies out, (as flame and fume in ordinary burning fewel) or at least there is made a local separation of Parts, and that for some distance; as in Distillation where the Lees settle, the vapours, after they have play'd about, are gathered into receptacles: But no man ever yet made trial of an imprison'd Distillation, for so we may call it: And it seems very probable, that if the force of heat immur'd with in the Cloisters of a Body, do so great matters, and work such alterations; and yet without loss, or manumission to the Body; that then this Proteus of Matter, fetter'd, as it were, with Manacles, may in time be forced to many transformations, if so be, that the heat be so temper'd; and intermutually chang'd, that the vessels be not broken. For this operation is like that of the womb, where the heat works without emission, or separation of any part of the Body, save that in the Matrix, there is conjoyn'd Alimentation; but for version, the thing is the same. These are the *fortunes, or adventures of Experiment*. In the mean time, we give this advice, touching Experiments of this Nature; that no man be discouraged, or confounded, if the Experiments which he puts in practice answer not his expectation; For what succeeds pleaseth more; but what succeeds not, many times informs no less. And this ought ever to be remembred (which we often press) that *Experimenta Lucifera Experiments of Light, and discovery, ought for a time to be much more enquired after, than Experimenta fructifera, Experiments of use and practice.* And thus much of *Literate Experience*, which (as we have said before) is rather a sagacity, and a hunting scent, than a Science.

§ Now for the *Novum Organum*, we say nothing, nor give any forecast thereof; being we have projected in our minds, by the assistance of the Divine favour, to make a perfect entire work of that subject; seeing it is a matter of higher consequence, than all the rest.

C H A P. III.

- I The Partition of the Inventive Art of Arguments, into Promptuary, or Places of Preparation; and Topick, or Places of Suggestion. II. The Division of Topick Art into General. §. And Particular Topicks. III. In example of Particular Topick in the Enquiry De Gravi & Levi.

Invention of Arguments is not properly an Invention; for to Invent is to discover things unknown, and not to recover, or recall that which is known already. The Use and Office of this kind of Invention seems to be no other, than out of the Mass of Knowledge, congested, and stored up in the Mind, readily to produce, that which may be pertinent to the Matter, and Question propounded. For he that is little or nothing acquainted before hand with the Subject in question, Topicks of Invention will little advantage him: On the contrary he that hath Provision at home which may be applied to the purpose, even without Art and Places of Invention, will at length, (though not so readily and aptly) find out and produce Arguments. So that this kind of Invention (as we have said) is not properly Invention, but only a Reduction into Memory, or Suggestion with Application. But because custom and consent hath authoriz'd the word, it may in some sort be called Invention: For it may be as well accompted a chase, or finding of a Deer, which is made within an inclosed Park; as that within a Forrest at large. But setting aside curiosity of words it may appear that the scope and end of this kind of Invention, is a certain promptitude, and expedite use of our Knowledge, rather than any encrease, or Amplification thereof.

I To procure this ready Provision for discourse, there are two ways; either that it may be designed and pointed out, as it were, by an Index, under what Heads the matter is to be sought; and this is that we call Topick: Or else, that Arguments may be before hand framed, and stored up, about such things as are frequently incident, and come into disceptation; and this we will call promptuary Art, or of Preparation. This later scarcely deserveth to be called a Part of Knowledge, seeing it rather consisteth in diligence, than any artificial erudition. And in this part Aristotle doth wittily indeed, but hurtfully deride the Sophists near his time, saying; They did as if one, that professed the Art of shoo-making, should not teach how to make up a shoo; but only exhibit in a readines a number of shooes, of all fashions and sizes. But yet a man might here reply, that if a Shoo-maker should have no shooes in his shop, but only work as he is bespoken, he would be but a poor man, and weakly customed. But our Saviour speaking of Divine knowledge, saith far otherwise; Every Scribe instructed for the Kingdom of heaven; is like a good householder that bringeth forth both new and old store. And we see the ancient Writers of Rhetorick do give it in Precept, That Pleaders should have divers common Places prepared long before hand, and handled, and illustrated both ways; for example, for the sence and equity of Law against the words, and letter of Law; and on the contrary. And Cicero himself being broken

De Repr.
Soph. lib.
2. c. 9. §.
ult.

Mat. 13.

Cic. de O.
rat.

broken unto it by great experience, delivers it plainly; *That an Orator if he be diligent and sedulous, may have in effect premeditate, and handled, whatsoever a man shall have occasion to speak of*; so that in the Pleading of the Cause it self he shall have no need to insert any new or sudden matter, besides new names, and some individual Circumstances. *But* the pains and diligence of *Demosthenes* went so far, that in regard of the great force that the entrance and access into a Cause hath to make a good Impression upon the Minds of Auditors, he thought it worth his labour to frame, and to have in readines a number of *Prefaces* for Orations and Speeches. And these Presidents, and Authorities, may deservedly overweigh *Aristotle's* Opinion, that would advise us to change a *Wardrope* for a pair of *Shears*. Therefore this part of knowledge touching *Promptuary Preparation*, was not to be omitted; whereof for this place this is sufficient. And seeing it is common to both *Logick* and *Rhetorick*, we thought good here amongst *Logicks*, only in Passage, to touch it; referring over a more ample handling of it to *Rhetorick*.

Ad Attic.
Lib. XVI.
EP. VI.

Ejus &
Exordia,
si ejus.

II The other Part of *Invention*, which is *Topick*, we will divide into *General* and *Particular Topick*. *General* is that which is diligently and copiously handled in *Logick*, or rational knowledge; as it were needless to stay upon the explication thereof. Yet thus much we thought meet to admonish by the way; that this *Topick* is of use, not only in argumentations, when we come to dispute with another; but in meditations also, when we reason and debate matters within our selves. Neither do these places serve only for *suggestion*, or *admonition*, what we ought to affirm or assert; but also what we ought to enquire and demand. And a faculty of wise interrogating, is half a knowledge; for *Plato* saith well, *Whosoever seeks, comprehends that he seeks for, in general notion; else how shall he know it, when he hath found it?* And therefore the larger and more certain our anticipation is, the more direct and compendious is our search. The same places therefore, which will conduce to search the mind of our inward conceptions, and understanding; and to draw forth the knowledge there stored up; will also help us to produce knowledge from without. So as if a man of Learning, and understanding be in presence, we might be able, aptly and wisely to propound a Question thereof; and likewise profitably select and peruse Authors and Books, or parts of Books, which might teach and inform us of those points we enquire.

In Mente.
ne.

§ *But particular Topicks do much more conduce to the purpose we speak of; and is to be accompted a thing of far greater use.* There hath been indeed some slight mention made hereof, by some Writers; but it hath not yet been handled fully, and according to the dignity of the Subject. But to let pass that humour and pride, which hath reigned too long in Schools, which is, *to pursue with infinite subtilty, things that are within their command; but never to touch at things any whit removed*; we do receive and imbrace *particular Topick*, as a matter of great use, that is, *places of enquiry and invention, appropriate to particular Subjects and Sciences; and these places are certain mixtures of Logick, and the proper matter of particular Sciences.* For he is but a weak man, and of narrow capacity, who conceives that the Art of *finding out Sciences* may be found out, propounded and perfected at once, even in their first conception;

*
TOPICÆ
PARTICU-
LARES.

and presently be set down, and practised in some work. But let men know for certain, *That solid and true Arts of Invention do shoot up, and come to maturity with the Inventions themselves: So as when a man first enters upon the search of a knowledge, he may have many profitable Precepts of Invention; but after he hath made farther progress in the knowledge it self, he may, and must excogitate new Precepts of Invention, which may, lead him more prosperously to further Discoveries.* For this kind of pursuit is like a going upon a plain and open Champion; for after we have gone a part of the way, we have not only gained this, that we are now nearer to our journeys end; but we gain the better sight of that part of the way, which remains. So every degree of *proceeding in Sciences*, having past over that which is left behind, gives a better prospect to that which follows: And because we set down this part of Topick as *Deficient*, we will annex an example thereof.

III. A particular Topick, or the Articles of Enquiry de GRAVI & LEVI.

Let it be enquired what Bodies those are which are susceptible of the *Motion of Gravity*, what of *Levity*, and whether there be any of a middle and indifferent Nature?

2. *After an absolute Inquiry de Gravi & Levi; proceed to comparative Inquiry; as of Ponderous Bodies, which doth weigh more, which less, in the same demension? so of Light Bodies, which are more speedily carried upward, which more slowly?*

3. *Let it be enquired, what the Quantum of a Body may contribute, and effect towards the Motion of Gravity. But this, at first sight, may seem a superfluous Inquiry, because the computation of motion must follow the computation of quantity: But the matter is otherwise; for although the quantity in the scales do compensate the weight of the Body it self, (the force of the Body every way meeting by repercussion, or by resistance, of the Basins, or of the Beam) yet where there is but small resistance (as in the falling down of a Body through the Air) the quantity of a Body little avails to the incitation of the descent; seeing two Balls of Lead, one of twenty, the other of one pound weight, fall to the earth almost in an equal space of time.*

4. *Let it be inquired, whether the Quantity of a Body may be so increased, as that the Motion of Gravity may be utterly deposed and cast off; as in the Globe of the earth, which is pensil, and falls not? Whether may there be other massive substances, so great, as may sustain themselves? For Local Descent to the Centre of the Earth, is a meer fiction; and every great Mass abhors all Local Motion, unless it be overrul'd by another more predominant Appetite.*

5. *Let it be inquired, what the resistance of a Body interposing, or incountring may do, or actuate towards the managing of the Motion of Gravity: For a Body descending, either penetrates and cutteth the Body occurrent; or is arrested by it: If it penetrates, then there is penetration; or with weaker resistance, as in Air, or with more strong, as in Water: If it be staid, it is staid either by a resistance unequal, where there is a Pregravation; as if Wood should be put upon Wax; or equal, as if Water should be put upon Water, or Wood upon Wood of the*

the same kind: which the Schools, in a vain apprehension call the *non-Ponderation of a body within its own Sphere*. All these do vary the *Motion of Gravity*; for *heavy substances* are otherways moved in scales; otherwise in falling down; nay, otherwise (which may seem strange) in Ballances hanging in the Air, otherwise in Ballances immersed in Water; otherwise in falling down through Water, otherwise in swimming, or transportation upon Water.

6. *Let it be inquired*, what the *Figure* of a body descending may, or doth work, to the moderating of the *Motion of Gravity*, as a broad *Figure* with tenuity; a cubick *Figure*, long round, Pyramidal; when they turn; when they remain in the same posture, wherein they were deliver'd.

7. *Let inquiry be made*, of that which the *Continuance* and *Progression* of a *Fall* or *Descent*, may, and doth work to this effect, that it may be carried with a greater incitation and force; and with what proportion, and how far that Incitation will carry? For the Ancients, upon a slight contemplation, were of opinion, *that because that was a natural Motion, it would continually be augmented and improv'd.*

V. DIGRES,

8. *Let inquiry be made* of that which *Distance* and *Proximity* of a *Body descending from the earth*, may, and doth work to this end, that it may fall more speedily, more slowly, or else not at all, (if so be that it be without the Orb of Activity of the *terrene Globe*, which was *Gilbert's* opinion): as likewise what the *immersion of a Body descending more in the deep of the earth*; or the placing thereof *nearer to the superficies of the earth*, may produce? For these kinds of Postures vary the Motion, as they experience that work in Mines.

De Magni

9. *Let there be inquiry made* of that which the difference of Bodies, by which motion of Gravity is diffused, and communicated, can do and doth: And whether it may equally be communicated by Bodies soft, and porose; as by hard and solid: As if the Beam of the Ballance be on one side of the Tongue Wood, on the other side Silver, (though they be reduced to the same weight) whether doth it not beget a variation in the Scales? In like manner, whether Metal put upon Wool; or upon a blown Bladder, weigh the same, it would do, if laid in the bottom of the Scale?

10. *Let there be inquiry made* what the distance of a Body from the level-Poise; that is the quick, or late perception of the incumbent, or of depression, can do or doth: As in a Ballance where one part of the Beam is longer (though of the same weight) whether this doth sway the Ballance? Or in the crooked Pipes, where certainly the longer part will draw the Water, although the shorter part, made more capacious, may contain a greater weight of Water.

11. *Let there be Enquiry made* of that which the intermixtion or copulation of a light Body with a weighty, may do to the raising of the *weight* of a Body, as in the poise of living Creatures, and Dead?

12. *Let inquiry be made* of the secret ascensions, and descensions of the parts more light, and more weighty in one, and the same entire Body. Whereby there may be made oftentimes exact separations; as in the separation of Wine and Water; in the Ascension of the Flower of Milk, and the like.

13. *Let it be inquired* what is the line and direction of the Motion of Gravity; and how far it may follow either the centre of the earth, that is, the mass of the Earth, or the centre of the Body it self; that is, the contention and driving on of the parts thereof; for those centres are profitable in demonstration, but of no use in Nature.

14. *Let it be inquired* touching the comparison of the Motion of Gravity, with other Motions; what Motions it masters, to what it yields? As in the Motion, which they call, *violent*, which is repress'd and bridled for a time; as when a far greater weight of Iron is drawn up by a small Load-stone, the Motion of Gravity gives place to the Motion of *Sympathy*.

15. *Let inquiry be made of the Motion of Air*, whether it be carried upwards, or be collateral and indifferent? Which is a hard thing to find out, but by some exquisite Experiments: for the glittering apparition of Air in the bottom of Water, is rather by the Percussion of Water, than by the Motion of Air; being the same emication may be made in Wood. But Air mingled with Air discovers no *Experiment*; because Air in Air exhibits Levity no less, than Water in Water doth Gravity: But in a Bubble drawn over with the inclosure of a thin Skin, it stays for a time.

16. *Let it be inquired what is the Term of Levity*, for sure their meaning (who made the Centre of the Earth, the Centre of Gravity) is not, that the ultimate convexity of Heaven should be the stint and limits of Levity: Or rather, that as ponderous Bodies seem to be so far carried, that there they may cast Anchor as at a fixt Pillar; so light Bodies are so far carried, that they may begin to wheel about, and come to a *motion without termination*?

17. *Let inquiry be made*, why vapours and exhalations should be carried as high as the *middle Region* of the Air (as they call it); seeing they are somewhat a gross substance; and the beams of the Sun by turns (as in the night) cease their Operation.

18. *Let inquiry be made of the conduct of the Motion of Flame upwards*; which is the more abstruse, because Flame expires every moment; save perchance in the imbracement of greater Flames: For Flames separated and broken off from their continuation, last not long.

19. *Let inquiry be made of the ascendant Motion of the Activity of Heat*, as when the Heat of red-hot Iron affecteth rather to mount upwards, than to move downwards? *The example* therefore of *particular Topick* may be made in this manner; in the mean time, what we have begun to advise, we do again admonish, which is, that men vary their *particular Topicks* so, as after farther Progression made by *Inquiry*, they do substitute one, and after that another *Topick*, if ever they desire to reach the top of Sciences. As for us, we attribute so much to *particular Topicks*, as we do design to make a particular Work of them upon some Subjects in Nature, which are more observable, and more obscure, *For we are Commanders of Questions, not so of things.* And thus of *Invention*.

CHAP. IV.

I. The Partition of the Art of Judging, into Judgement by Induction; § And by Syllogism. Of the first a Collection is made in the New Organ. § The first Partition of Judgement by Syllogism into Reduction, Direct, and Inverst. § The second Partition thereof, into Analytick Art: and the Knowledge of Elenchs. II. The Division of the Knowledge of Elenchs, into Elenchs of Sophisms. § Into Elenchs of Interpretation of Terms. § And into Elenchs of Images, or Idolaes. III. The Division of Idolaes. § Into Impressions from the General Nature of Man, or Idola Tribûs. § Into Impressions from the Individual temper of particulars, or Idola Specûs. § Into Impressions by Words, and Communicative Nature, or Idola Fori. IV. An Appendix of the Art of Judging, namely of the Analogie of Demonstration according to the Nature of the Subject.

I. **L**ET us now pass to Judgement, or the Art of Judging, which handleth the Nature of Proofs, or Demonstrations. And in this Art of Judging (as also generally it is accepted) a Conclusion is inferred, either by Induction; or else by Syllogism: For Enthymemes; and Examples are only the abridgements of these two. As for Judgement that it is by Induction, we need nothing doubt. For by one and the same Operation of the Mind, that which is sought, is both found and judged. Neither is the thing perfected by any mean, but immediately after the same manner, for most part, as it is in Sense: For Sense, in her primary Objects, doth at once seize upon the species of an Object, and consent to the truth thereof. But it is otherwise in Syllogism, the Proof whereof is not Immediate, but perfected by a Mean; and therefore the Invention of the Medium is one thing; and the Judgement of the consequence of Argument, is another: For the mind first discourseth, afterwards rests satisfied. But a Vitious Form of Induction we utterly disclaim; a Legitimate Form we refer over to the New Organ. Therefore enough in this place, of Judgement by Induction.

§ For that other Judgement by Syllogism, to what purpose is it to speak, seeing this is by the subtil files off mens wits amost worn away, and reduced into many minute pieces? And no marvel, being it is a thing hath such Sympathy with mans understanding. For the mind of man doth wonderfully endeavour, and extremely covet this, that it may not be pensil; but that it may light upon something fixt and immoveable, or which as on a firmament it may support it self, in its swift motions and disquisitions. Surely, as Aristotle endeavoureth to prove, That in all motion of Bodies there is some point quiescent; and very elegantly expoundeth the Ancient Fable of Atlas that stood fixed, and bare up the Heavens from falling, to be meant of the Poles of the World, whereupon the Conversion is accomplisht. In like manner men do earnestly seek to have some Atlas, or Axeltree of their Cogitations within themselves, which may in

De Animal. Met. tione.

some measure moderate the fluctuations, and wheelings of the understanding, fearing it may be, the falling of their Heaven. Therefore men have hastned too fast to set down principles of Sciences, about which all the variety of Disputations might turn without peril of ruine or subversion. In truth not knowing that he who too early lays hold on certainties, will conclude in ambiguities; and he that seasonably suspends his Judgement, shall attain to Certainties.

§ So then it is manifest, that this Art of Judging by Syllogism is nothing else, but the reduction of Propositions to Principles, by middle terms; and Principles are understood to be agreed of by all, and are exempt from Argument. But the invention of middle terms is permitted to the free sagacity, and pursuit of mens wits. This Reduction is of two kinds, Direct and Inverted. Direct is, when the Proposition is reduced to the Principle, which is call'd Probation Ostensive. Inversed is, when the Contradictory of the Proposition is reduced to the Contradictory of the Principle; which they term a Probation from incongruity, or an absurdity. The number also of middle terms, or their scale is diminished or increased, as they are remov'd from the Principle of the Proposition.

§ These grounds laid, we will divide the Art of Judgement (as for most part generally it is) into Analytick Art; and the Doctrine of Elenchs; the one giveth Direction, the other Caution. For Analytick setteth down the true Forms of Consequences of Argument by a Variation, and Deflection, from which, the Conclusion is deprehended to be erroneous; and this part contains in it a kind of Elench, or Redargution. For, as it is said, Rectum & sui index est, & obliqui. Notwithstanding it is the safest way to set down Elenchs as Monitors, whereby Fallacies, which otherwise might insnare the Judgement, may be more easily detected. In the Analytick Part we find nothing Deficient, which rather is loaden with superfluities, than any way is wanting in accessions.

V. Euclid.
& Comment.

Epist. 45.

II. The Knowledge of Elenchs we divide into three Parts: Elenchs of Sophisms; Elenchs of Interpretation; and Elenchs of Images or Idolaes. The Doctrine of Elenchs of Sophisms is very useful; for although the the more gross sort of Fallacies is (as Seneca makes the comparison very well) But as the feats of Juglers, which though we know not how they are done; yet we know well it is not as it seems to be. Yet the more subtil sort of Sophisms doth not only put a man besides his answer, but doth in good earnest abuse his Judgement.

In Dial. ita
in script.

§ This Part concerning the Elenchs of Sophisms is excellently handled by Aristotle in Precept; but more excellently by Plato in Example, not only in the Person of the Ancient Sophists, Gorgias, Hippias, Protagoras and Enthidemus, and the rest; but even in the Person of Socrates himself, who professing to affirm nothing, but to infirm whatsoever others avouch, hath exactly expressed all the Forms of Objections, Fallacies and Redargutions. Wherefore in this Part we have nothing Deficient. But this, in the mean time, is to be noted, that though we make the ingenious and principal use of this Knowledge to consist in this, That Sophisms may be redargued; yet it is manifest, that the degenerate and corrupt use thereof is imploy'd to contrive, and impose Captions and Contradictions, by these Sophisms; which passeth for a great Faculty,
and

and no doubt is of great advantage. Though the difference was elegantly made by one betwixt an Orator, and a Sophist, *That the one is as the Grey-hound, which hath his advantage in the race; the other as the Hare which hath her advantage in the turn.*

§ Now follow *Elenchi Hermeniæ*, for so we will call them, borrowing the Word, rather than the Sence, from *Aristotle*. And here let us call to mens memory what we have said before; (when we handled *Primitive Philosophy*) of *transcendent, and adventitious Conditions, or Adjuncts of Entity*, they be *Majority, Minority; Much, Little; Priority, Posteriority; Identity, Diversity; Power, Act; Habit, Privation; Totality, Partiality; Activity, Passivity; Motion, Quietude; Entity, Non-Entity*, and the like. But specially let men remember, and observe the different Contemplations of these Properties, which is, that they may be enquired, either *Physically, or Logically*. The Physical handling of these adherent Qualities we have assigned to *Primitive Philosophy*. The *Logical* remaineth, and that is the very thing which we here stile *Doctrinam de Elenchis Hermeniæ*, the *Knowledge of the Elenchs of Interpretation*. This indeed is a sound and material Portion of Knowledge: *For these Commune and general Notions have this Nature, that in all disputations they every where intervene, so as, if they be not by a careful Judgment accurately distinguish'd at first; they may wonderfully overcloud the whole light of Disputations; and even bring the case to that pass, that the Disputations shall be resolv'd into a skirmish of words. For Æquivocations, and erroneous acception of words (specially of this Nature) are the Sophism, of Sophisms.* Wherefore it seemeth better to constitute a Treatise of them apart, than to receive them into *Prime Philosophy*, I mean *Metaphysick*; or to annex them as a part of *Analyticks*, which *Aristotle* very confusedly hath done. And we have given it a name from the Nature and Use; *for the right use is plainly Redargution, and Caution about the acception of words.* Nay that Part of *Predicaments* touching *Cautions, of not confounding, and transposing the terms of Definitions, and Divisions*, if it were rightly instituted, would be of singular use, in our judgment, and might fitly be referred hither. And thus much of the *Elenchs of Interpretation*.

Arist. Analyt.

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ELENCHIS
IDOLORUM.

III *As for the Elenchs of Images or Idolaes; certainly Idolaes are the profoundest Fallacies of the mind of man.* Nor do they deceive in *Particulars*, as the rest do; casting a Cloud, and spreading snares over the Judgment; but apertly from a corrupt, and crookedly-set predisposition of the mind; which doth, as it were, wrest and infect all the anticipations of the understanding. *For the mind of man* (drawn over, and clouded with the sable Pavillion of the Body) is so far from being like a smooth, equal, and clear Glass, which might sincerely take and reflect the beams of things, according to their true incidence; that it is rather like an enchanted Glass, full of Superstitions; Apparitions, and Impostures.

§ *Idolaes are impos'd upon the understanding, either by the universal Nature of man in general; or from the individual Nature of Particulars; or by words, or nature Communicative.* The first sort of Images we wont to call *Idola Tribûs*; the second, *Idola Specûs*; the third, *Idola Fori*: There is also a fourth kind, which we call, *Idola Theatri*; and is introduced by deprav'd Theories or Philosophies, and perverse Laws of Demonstra-

NOV. OR.
Lib. i.
APH. LXI.
ad LXIX.

tions;

tions; but this kind may be denied and put off, wherefore we pass it over for the present. But the other do plainly besiege the mind, nor can they ever be quite removed, or extirpated. Therefore let none expect any Analytick Art in these; but the knowledge of *Elenchs* concerning these *Idolæes* is a Primary Knowledge. Nor (to speak truth) can this Knowledge of *Idolæes* be reduced into Art; but only by a contemplative wisdom, we may be instructed to beware of them. As for a just and more subtile Treatise thereof, we refer that to the *Novum Organum*, touching upon them in a generality in this place.

NOV. OR.
Lib. I.
Aph.
XLV.
ad LIII.
exclusive.

§ *Idola Tribus* is thus exemplified, *The Nature of the mind of man is more affected with Affirmatives and Actives, than with Negatives and Privatives; whereas in a just and regular course it should present it self equal to both.* But the mind of man, if a thing have once been existent, and and held good, receives a deeper Impression thereof, than if the same thing, far more often fail'd and fell out otherwise; which is the root, as it were, of all superstition and vain credulity. So that he answered well to him that shewed him the great number of Pictures of such as had 'scaped Shipwreck, and had paid their vows; and being prest with this Interrogative, *Whether he did not now confess the Divinity of Neptune?* return'd this counter-question by way of answer; *yea, but where are they painted, that are drowned?* And there is the same reason of all such like Superstitions, as in Astrology; Dreams; Divinations, and the rest. An other Instance is this; *The Spirit of man being it self of an equal and uniform Substance, doth presuppose, and feign a greater equality, and uniformity in Nature, than in truth there is.* Hence that fiction of the Mathematicians, *that in the heavenly Bodies, all is moved by perfect Circles;* rejecting spiral Lines: so it comes to pass, that whereas there are many things in Nature, as it were *Monodica*, and full of imparity; yet the conceits of men still feign and frame unto themselves, *Relatives; Parallels, and Conjugates.* For upon this ground, *the Element of Fire and its Orb is brought in to keep square with the other three, Earth; Water; Air.* The *Chymicks* have set out a Phanatical Squadron of the word, feigning by a most vain conceit, in those their four Elements (*Heaven; Air; Water, and Earth,* there are found to every one parallel and conform species. *The third Example* hath some affinity with the former, *That man is, as it were, the common measure and mirror, or glass of Nature;* for it is not credible (if all Particulars were scann'd and noted) what a troop of *Fictions* and *Idolæes* the reduction of the operations of Nature, to the similitude of humane Actions, hath brought into *Philosophy;* I say this very fancy, *that it should be thought that Nature doth the same things that man doth.* Neither are these much better than the Heresie of the *Anthropomorphites*, bred in the Cells and solitude of gross and ignorant Monks, or the Opinion of *Epicurus* answerable to the same in Heathenism, who supposed God to be of Humane shape. But *Velleius* the Epicurean needed not to have asked, why God should have adorned the heavens with stars and lights, as if he had been an *Ædilis;* one that should have set forth some magnificent shews or plays; for if that great Workman had conform'd himself to the imitation of an *Ædilis,* he would have cast the stars into some pleasant and beautiful works, and orders, like the curious roofs of Palaces, whereas one can scarce find in such an infinite number of stars a Posture in square, or Triangle,

Cic. de N.
D. lib. V.

V. LI.
GRES.

Elem. Ig-
nis vide
Digress.

Paracel.
Elibde
passim.

Epiphani.
lib. 3. Ni-
ceph. Hist.
Eccl. lib. 11

or right-Line. *So different a harmony there is between the Spirit of man, and the Spirit of the world.*

§ *Idola Specûs are derived from the Individual Complexion of every Particular in respect of Mind, and of Body; as also, from Education; Custom; and Fortuitous Events, which befall every man. For it is an excellent emblem that of Plato's Cave; for certainly (to let go the exquisite subtilty of that Parable) if a man were continued from his Childhood unto mature Age in a Grot, or a dark and subterraneous Cave, and then should come suddenly abroad, and should behold this stately canopy of heaven, and the Furniture of the World; without doubt he would have many strange and absurd imaginations come into his mind, and people his brain. So in like manner we live in the view of heaven; yet our Spirits are inclosed in the Caves of our Bodies; Complexions, and Customs, which must needs minister unto us infinite images of errors, and vain Opinions, if they do so seldom, and for so short a space appear above ground, out of their holes; and do not continually live under the Contemplation of Nature, as in the open Air. That Parable of Heraclitus doth well suit with this emblem of Plato's Cave, that men seek Sciences in their own proper World, and not in the greater World.*

NOV. OR.
Lib. 1.
Aph. I III.
ad LIX.

Plat. de
Rep. VII.

N. L.

§ *But Idola Fori are most troublesome, which out of a tacite stipulation amongst men, touching the imposition of words, and names, have insinuated themselves into the understanding. Words commonly are imposed according to the capacity of the People; and distinguish things by such differences, as the Vulgar are capable of; and when a more prescissive conception, and a more diligent observation would discern, and separate things better; the noise of popular words confounds and interrupts them. And that which is the remedy to this inconvenience (namely Definitions) in many points is not a remedy sufficient for the disease; because the Definitions themselves consist of words, and words beget words. For although we presume that we are masters of our words, and expressions; and it is soon said, *loquendum ut vulgus, sentiendum ut sapientes*, and that words of Art, which are of Authority only with the Learn'd, may seem to give some satisfaction to this defect; and that the Definitions whereof we have spoken, premised, and presupposed in Arts according to the wisdom of the Mathematicians, may be of force to correct the depraved acceptations of words; yet all this secures us not from the cheating flights and charms of words, which many ways abuse us, and offer violence to the understanding; and after the manner of the Tartars Bow, do shoot back upon the judgment from whence they came. Wherefore this disease must have a new kind of remedy, and of more efficacy. But we do now touch these in passage briefly, in the mean time reporting this Knowledge which we will call, *the Great Elenchs*, or the Doctrine of *Idolaes*, Native and adventual of the mind of man, to be *Deficient*. But we refer a just Treatise thereof to the *Novum Organum*.*

NOV. OR.
Lib. 1.
Aph. LIX:
ad LXI.

Agell. N.
H. alicubi.

IV There remains one part of *Judgment* of great excellency, which likewise we set down as *Deficient*. For indeed *Aristotle* noteth the thing, but no where pursueth the manner of acquiring it. The Subject of this point is this. *The different kind of Demonstrations, and Proofs, to different kind of Matter and Subjects; so that this Doctrine containeth the*

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DE ANA-
LOGIA
DEMON-
STRATI-
ONUM.

Eth. lib. 1. *Indications of Indications.* For Aristotle adviseth well, That we may not require Demonstrations from Orators, or Perswasions from Mathematicians; so that if you mistake in the kind of Proof, the judicature cannot be upright and perfect. And seeing there are four kinds of Demonstrations either by immediate Consent, and commune Notions; or by Induction; or by Syllogism; or by that which Aristotle calls Demonstration in orb, or in Circle, (that is not from the more-known notions, but down right); every of these Demonstrations hath certain Subjects, and matter of Sciences, wherein respectively they have chiefest use; other Subjects from which respectively they ought to be excluded. For a rigor and curiosity in requiring too severe proofs in some things; much more a facility and remission in resting satisfied in slighter Proofs, are to be numbred amongst those prejudices, which have been the greatest Causes of detriment, and impediment to Sciences. Thus much concerning the Art of Judging.

CHAP. V.

- I. The Partition of Art Retentive, or of Memory into the Knowledge of the Helps of Memory. §. and the Knowledge of the Memory it self.
- II. The Division of the Doctrine of Memory into Prenotion. §. and Emblem.

WE will divide the Art of Retaining, or of Custody, into two Knowledges; that is, into the knowledge of the Helps of Memory, and the Knowledge of the Memory it self. Assistant to Memory is writing; and it must by all means be noted, that Memory of it self, without this support, would be too weak for prolix and accurate matters; wherein it could no way recover, or recall it self, but by Scripture. And this subsidiary second is also of most special use in Inductive Philosophy, and the Interpretation of Nature. For a man may as well perfect, and sum up the Computations of an Ephemerides by mere Memory; as comprehend the Interpretation of Nature by meditations, and the nude, and native strength of Memory; unless the same Memory be assisted by Tables, and Indices provided for that Purpose. But to let go the Interpretation of Nature, which is a new knowledge; there scarcely can be a thing more useful even to ancient, and popular Sciences, than a solid, and good Aid to Memory; that is, a substantial and Learned Digest of Common places. Neither am I ignorant, that the referring of those things we read, or learn, into Common Places, is imputed by some as a Prejudice to Learning; as causing a retardation of Reading, and a slothful relaxation to Memory. But because it is a Counterfeit thing in Knowledge, to be forward and pregnant, unless you be withal deep and full; I hold that the diligence, and pains in collecting Common Places, is of great use and certainty in studying; as that which Subministers Copy to Invention; and contracteth the sight of Judgment to a strength. But this is true, that of the Methods and Syntagms of Common Places, which we have seen, there is none that is of any worth; for that in their Titles, they merely

ly represent the face, rather of a School, than of the world; exhibiting Vulgar and Pedantical Divisions, and not such as any way penetrate the Marrow and Pith of things.

§ As for *Memory* it self; that in my Judgement hitherto hath been loosely, and weakly inquired into. There is indeed an Art extant of it; but we are certain that there may be had both better Precepts for the confirming and increasing *Memory*, than that Art comprehendeth; and a better practice of that Art may be set down, than that which is receiv'd. Neither do we doubt (if any man have a mind to abuse this Art to ostentation) but that many wonderful and prodigious Matters may be performed by it. But for use (as it is now managed) it is a barren thing. Yet this in the mean time we do not tax it withal, that it doth supplant, or surcharge *Natural Memory* (as commonly is objected) but that it is not dexterously applied to lend assistance to *Memory* in business, and serious occasions. And we have learned this (it may be from our practised Course in a civil Calling) that whatsoever makes ostentation of Art, and gives no assurance of use, we esteem as as nothing worth. For to repeat on the sudden a great number of names or words, upon once hearing, in the same order they were delivered; or to pour forth a number of verses upon any argument *extempore*; or to tax every thing that falls out in some satyrical simile; or the turning of every thing to a Jest; or the eluding of every thing by a contradiction or cavil, and the like; whereof in the faculties of the mind there is a great store; and such as by wit and practice may be exalted to a great degree of wonder. All these and the like, we make no more estimation of, than we do of the agilities and tricks of Tumblers, Buffoons and Juglers: For they are almost all one thing, seeing these abuse the Powers of the Body, these the Powers of the Mind; and perchance they may have some strangeness in them; but little or no worthiness.

II. *This Art of Memory* is built upon two Intentions, *Prenotion* and *Emblem*. We call *Prenotion* a *Precision of endless Investigation*; for when a man would recal any thing to *Memory*, if he have no *Prenotion* or *Preception* of that he seeketh, he searcheth indeed, and taketh pains, rounding this way and that way, as in a maze of infinity. But if he have any certain *Prenotion*, presently that which is infinite is discharged and cut off; and the questioning of the *Memory* is brought within a more narrow compass; as in the hunting of a Fallow Deer within the Park. Therefore it is evident, that the *Method* helps the *Memory*; for *Prenotion* suggesteth that it must agree with order. So verses are sooner gotten by heart than Prose; for if a man make a doubtful stand at a word, *Prenotion* prompts him that the word which agrees with the verse, must be of such a Nature. And this *Prenotion* is the first part of *Artificial Memory*. For in *Memory Artificial* we have places digested and provided before hand: But we make *Images extempore*, according as the present shall require. But *Prenotion* doth admonish that the *Image* must be such as hath some resemblance with the *place*; this is that which awaketh, and in some sort muniteth the *Memory* in the chase of what we seek.

§ *Emblem* deduceth conceptions intellectual to *Images sensible*, and that which is sensible, more forcibly strikes the *Memory*, and is more easily imprinted, than that which is intellectual. So we see that even the *Memo-*

ry of Beasts is stirr'd up by a *sensible* object, not by an *intellectual*. So you will more easily *remember* the *Image* of a Hunts-man pursuing the Hare, or of an Apothecary setting in order his Boxes, or of a Pedant making a Speech, or of a Boy reciting Verses by heart, or of a Jester acting upon a Stage, than the *Notions of Invention, Disposition, Elocution, Memory, Action*. There are other things that pertain to the *help of Memory* (as we said even now) but the *Art* which now is in use consists of these two Inventions now set down. To pursue the *particular Defects* of Arts, would be to depart from our intended purpose. Wherefore let thus much suffice for the Art of *Retaining*, or of *Custody*. Now we descend in order to the fourth member of *Logick*, which handles *Tradition and Elocution*.

THE

THE
 Sixth Book
 OF
 FRANCIS L. VERULAM
 VICOUNT S^t ALBAN,
 OF THE
 Dignity and Advancement
 OF
 LEARNING.

To the KING.

CHAP. I.

I. The Partition of the Art of Tradition, into the Doctrin of the Organ of Speech. The Doctrin of the Method of Speech; And the Doctrin of the Illustration of Speech. § The Partition of the Doctrin of the Organ of Speech; into the Knowledge of the Notes of things; of Speaking; and of Writing; of which the two last constitute Grammar, and the Partitions thereof. § The Partition of the Knowledge of the Notes of things; into Hieroglyphicks; And into Characters Real. II. A second Partition of Grammar, into Literary and Philosophical. III. An Aggregation of Poesie, referring to Measure, unto the Knowledge of Speech. An Aggregation of the Knowledge of Cyphers to the Knowledge of Writing.



Certainly any man may assume the liberty (*Excellent King*) if he be so so humour'd, to jest and laugh at himself, or his own Projects. Who then knows whether this work of ours be not perchance a Transcript out of an Ancient Book found amongst the the Books of that famous Library of *S. Victor*, a Catalogue whereof *M. Fra. Rabelais* hath collected? For there a Book is found entitled *Formicarium Artium*; we have indeed accumulated a little heap of *small Dust*; and laid up many *Grains of Arts and Sciences* therein, whereto *Ants* may creep, and there repose a while

*Liv. 2. c. 7.
 des faits
 & dits de
 Bon Pan-
 tagr.*

while, and so betake themselves to new labours. Nay the wisest of Kings sends the slothful, of what rank or quality soever, unto the Ants; whose only care is to live upon the main stock, but not to improve it by sowing the ground of Sciences over again, and reaping a new Harvest.

I. Now let us come unto the Art of Delivery, or of Expressing, and Transferring those things which are Invented, Judged, and laid up in Memory; which, by a general name, we will term Tradition. This comprehendeth in it all Arts touching Words and Speeches; for though Reason be, as it were, the Soul of Speech, yet in the manner of handling, Reason and Speech should be separate, even as the Soul and the Body are. We will divide these Traditive Sciences into three Parts; into the Knowledge concerning the Organ of Speech; into the Knowledge concerning the Method of Speech; and into the Knowledge concerning the Illustration and Ornament of Speech.

De Interpret.

§ The Knowledge concerning the Organ of Speech generally receiv'd, which is also called Grammar, hath two Parts; the one of Speech; the other of Writing. For Aristotle saith well, Words are the Images of Cogitations; Letters are the Images of Words; we will assign both to Grammar. But to derive the Matter somewhat higher before we come to Grammar, and the Parts thereof now set down; we must speak of the Organ of Tradition in general. For there seems to be other Traditive Emanations besides Words and Letters. For this is certain whatsoever may be distinguish'd into differences, sufficient for number, to express the variety of Notions (so those differences be perceptible to sense) may be the Convoy of the Cogitations from man to man. For we see Nations of different Language to trade one with the other, well enough to serve their turn by Gestures. Nay, in the practice of many, that have been dumb and deaf from their birth, and otherwise were ingenious, we have seen strange Dialogues held between them, and their friends, who have learn'd their Gestures. Moreover it is now generally known that in China, and the Provinces of the high Levant, there are at this day in use, certain Real, and not Nominal Characters; that is, such as express neither Letters nor Words; but Things and Notions: in so much, that many Countries that understand not one another's Language, but consenting in such kind of Characters (which are more generally receiv'd amongst them) can communicate one with another by such Figures written; so as every Country can read and deliver in his own native Tongue, the meaning of any Book written with these Characters.

*
DE NOTIS
REUM.

§ Notes therefore of things, which without the help and mediation of Words signify Things, are of two sorts; whereof the first sort is significant of Congruity; the other ad placitum. Of the former sort are Hieroglyphicks and Gestures; of the later are those which we call Characters Real. The use of Hieroglyphicks is very ancient, and had in a kind of Veneration; especially amongst the Egyptians, one of the most Ancient Nations: So that Hieroglyphicks seem to have been a first-born writing, and elder than the Elements of Letters; unless, it may be, the Letters of the Hebrews. As for Gestures, they are, as it were, Transitory Hieroglyphicks. For as words pronounced vanish, writings remain; so Hieroglyphicks expressed by Gestures, are transient, but painted, permanent. As when Periander being consulted with, how to preserve a Tyranny, bid the

the Messenger stand still, *and he walking in a Garden, topt all the highest Flowers*; signifying the cutting off, and the keeping low of the Nobility; did as well make use of a *Hieroglyphick*, as if he had drawn the same upon Paper. This in the mean is plain, that *Hieroglyphicks* and *Gestures* ever have some similitude with the thing signified, and are kind of *Emblems*; wherefore we have named them the *Notes of things from Congruity*. But *Characters Real* have nothing of Emblem in them; but are plainly dumb and dead Figures, as the *Elements of Letters* are; and only devised *ad Placitum*, and confirmed by Custom, as by a tacit agreement. And it is manifest also that there must needs be a vast number of them for writing; at least so many as there are Radical words. Wherefore this portion of Knowledge concerning the *Organ of Speech*, which is of the *Notes of Things*, we report as *Deficient*. And though it may seem of no great use, considering that *Words* and *writings by Letters* are the most apt *Organs of Tradition*; yet we thought good to make mention of it here, as of a knowledge not to be despised. For we here handle, as it were, the *Coyns of things Intellectual*; and it will not be amiss to know, that as Money may be made of other matter besides Gold and Silver; so there may be stamped other *Notes of things* besides *Words* and *Letters*.

II Let us proceed to *Grammar*; this doth bear the office as it were, of an *Usher to other Sciences*; a place not very honourable, yet very necessary, especially seeing that in our age *Sciences* are chiefly drawn from *Learned Languages*, and not from *Mother-tongues*. Nor is the dignity thereof to be esteemed mean, seeing it supplies the place of an *Antidote*, against that *Malediction* of the *Confusion of Tongues*. Surely the Industry of man striveth to restore, and redintegrate himself in those *Benedictions*, which by his guilt he forfeited; and by all other *Arts, arms* and strengthens himself against that first general *Curse of the sterility of the earth, and the eating of his bread in the sweat of his brows*. But against that second *Curse*, which was the *Confusion of Tongues*, he calls in the assistance of *Grammar*. The use hereof in some *Mother-tongues* is indeed very small; in *foreign tongues* more large; but most ample in such tongues, as have ceased to be vulgar, and are perpetuated only in *Books*.

§ We will divide *Grammar* into two sorts, whereof the one is *Literary*, the other *Philosophical*. The one is merely applied to *Languages*, that that they may be more speedily learned; or more correctedly and purely spoken. The other in a sort doth minister, and is subservient to *Philosophy*. In this later part which is *Philosophical*, we find that *Cæsar* writ *Books De Analogia*; and it is a question whether those *Books* handled this *Philosophical Grammar* whereof we speak? Our opinion is, that not any high and subtil matter in them, but only that they deliver'd Precepts of a pure and perfect speech, not depraved by popular Custom; nor corrupted and polluted by over-curious affectation; in which kind *Cæsar* excell'd. Notwithstanding, admonish'd by such a work, we have conceiv'd and comprehended in our mind, a kind of *Grammar*, that may diligently enquire, not the *Analogy of words one with another*, but the *Analogy between Words and Things, or Reason*; besides that *Interpretation of Nature*, which is subordinate to *Logick*. Surely *Words* are the *foot-steps of Reason*; and *foot-steps* do give some indications of the *Body*; wherefore we will give some general description

Herodot. Laert.

Gen. 3.

Suet in 1ul.

*
GRAM-
MATICA
PHILOSOPHANS.

ptica

ption of this. And first we do not allow that curious enquiry which
 In Cratyl. Plato an excellent man pursued, touching the *imposition* and *original E-*
tymology of names. conceiving it, as if words had not been imposed at
 first, ad *Placitum*; but were significantly derived and deduced from a cer-
 tain reason and intendment. Certainly an elegant and pliant specula-
 tion, which might be aptly fain'd and made square to the purpose: and
 by reason it seemeth to search the secrets of Antiquity, in some kind re-
 verend. But yet sparingly mixt with truth, and without fruit. *But*
without question that would be a most excellent kind of *Grammar* (as
 we suppose if some man throughly instructed in many *Languages*, as well
 Learned, as *Mother-tongues*, should write a *Treatise* of the divers Pro-
 prieties of *Languages*; shewing in what points every particular Lan-
 guage did excel; and in what points it was *Deficient*. For so
 Tongues might be enricht and perfected by mutual intertraffick one with
 another; and a most fair Image of speech (like the *Venus* of *Apelles*);
 and a goodly pattern for the true expression of the inward sence of the
 mind, might be drawn from every part which is excellent in every
 Language. *And withal* no slight *Conjectures*, but such as were well
 worth the observation, might be taken (which a man perchance would
 little think) touching the natural dispositions and customs of People, and
 Nations, even from their *Languages*. For I willingly give ear to *Cice-*
 De Orat. ro noting that the Grecians have not a word which may express this La-
 lib. 2. tine word, *Ineptum*; because (saith he) *this vice was so familiar to the*
Grecians, that they did not so much as acknowledge themselves guilty there-
of. Certainly a Censure worthy a Roman gravity. And what may
 that infer, that the Grecians used such a Liberty in composition of
 words; contrarywise the Romans were in this point severe? Surely a
 man may plainly collect that the Grecians were more fit to study Arts;
 the Romans to manage affairs of state. For distinctions of Arts, for
 most part, require composition of words; but matters and business,
 simple words. *But the Hebrews* so shun *Composition*, that they make choice
 rather to strain a *Metaphor* too far, than to bring in a *Composition*. Nay
 they use so few words, and so unmingled, that a man may plainly per-
 ceive by their Tongue, that they were a *Nazarite* People, and separate
 from other Nations. *And is not* that worthy observation? (though it may
 serve to abate our high conceit of our own times) that *ancient Languages*
were more full of Declensions; Cases; Conjugations; Tenses, and the like;
the modern commonly destitute of these, do loosely deliver themselves in
many expressions by Prepositions, and auxiliary verbs. Certainly a man
 may easily conjecture (however we may please our selves) that the wits
 of former times were far more acute and subtil than ours are. There
 are an infinite number of observations of this kind which might make up
 a just Volume. Wherefore it will not be amiss to distinguish *Gram-*
mar Philosophical, from *mere and literary Grammar*, and to set it down
 as *Deficient*. Unto *Grammar* also belongs the consideration of all *Acci-*
dents of words; such as are *Measure; Sound; Accent*; but those first
 infancies of simple Letters (as, with what Percussion of the Tongue, with
 what opening of the mouth; with what drawing of the lips, with what
 straining of the throat; the sound of every Particular Letter is to be
 made) belongs not unto *Grammar*; but is a Portion of the *knowledge of*
sounds, to be handled under *sense* and *sensibility*. *Grammatical sound*,
 whereof

whereof we speak, belongs only to sweetness and harshness of sounds; of which some are common; for there is no Tongue but in some sort shuns the too much overture of concurrent Vowels, and the asperities of concurrent Consonants. There are other respective sounds which are pleasing, or displeasing to the ear, according to the temper of divers Nations. *The Greek Tongue* is full of Diphthongs; the *Latin* is far more sparing; the *Spanish Tongue* hates small-sounding Letters, and presently changeth them into Letters of a middle tone; the *Tongues* derived from the *Goths* delight in Aspirates; there are innumerable of this nature, but perchance these are more than enough.

III. *But the measure of words* hath brought us forth an immense Body of Art, namely *Poesie*; not in respect of the Matter (of which we have spoken before) but in respect of stile, and the form of words, as *Metre* or *Verse*; touching which the Art is very small and brief, but the access of Examples large and infinite. Neither ought that Art (which the Grammarians call *Profodia*) to be only restrain'd to the kinds and measures of *Verse*; for their are Precepts to be annext, what kind of *Verse* best fitteth every Matter or Subject. The Ancients applied *Heroical Verse* to *Histories* and *Laudatories*; *Elegies* to *Lamentations*; *Jambicks* to *Invectives*; *Lyricks* to *Songs* and *Hymns*. And this Wisdom of the Ancients is not wanting in the *Poets* of later Ages, in *Mother-tongues*; only this is to be reprehended, that some of them too studious of Antiquity have endeavoured to draw *Modern Languages* to *Ancient Measures* (as *Heroick*, *Elegiack*, *Saphick*, and the rest) which the *Fabrick* and composition of those *Languages*, will not bear; and withal is no less harsh unto the ear. In the Matters of this Nature the Judgement of Sense is to be preferr'd before Precepts of Art, as he saith,

———*Cœna Fercula nostræ*
Mallem Convivis quam placuisse Coquis.

Mart;
Ep. 9.

Nor is *this Art*, but the abuse of Art, seeing it doth not perfect, but perverts Nature. As for *Poesie* (whether we speak of *Fables*, or *Metre*) it is, as we have said before, as a *Luxuriant Herb* brought forth without seed, and springs up from the strength and rankness of the soyl. Wherefore it runs along every where, and is so amply spread, as it were a *superfluous labour* to be curious of any *Deficients* therein; the care therefore for this is taken already.

§ *As for the Accents of Words*, there is no need, that we speak of so small a matter; unless, perchance, some may think it worth the noting, that there hath been exact observations made of the *Accents of Words*, but not of the *Accents of Sentences*; yet this, for most part, is the general Custom of all men, that in the close of a *Period* they let fall their voice, in a demand they raise it, and many such like usages.

§ *As for Writing*, that is perform'd either by the vulgar Alphabet, which is every where receiv'd; or by a secret and private Alphabet, which men agree upon between themselves, which they call *Cyphers*. But the *Vulgar Orthography* hath brought forth unto us a *Controversie*, and *Question*, namely, *Whether words should be written as they are spoken, or rather after the usual manner*. But this kind of writing, which seems to be reformed, which is, *that writing should be consonant to speaking*, is a branch of unprofitable subtilties; for *Pronunciation* it self

Y every

every day encreases and alters the fashion; and the derivation of words, especially from forreign Languages, are utterly defac'd and extinguish'd. In brief, seeing *writing*, according to the receiv'd Custom, doth no way prejudice the *manner of speaking*, to what end should this innovation be brought in?

§ *Wherefore let us come to Cyphers.* Their kinds are many, as *Cyphers simple*; *Cyphers intermixt with Nulloses*, or non-significant Characters; *Cyphers of double Letters under one Character*; *Wheel-Cyphers*; *Key-Cyphers*; *Cyphers of words*; *Others*. But the virtues of them, whereby they are to be preferr'd, are Three; *That they be ready, and not laborious to write*; *That they be sure, and lie not open to Decyphering*: *And lastly, if it be possible, that they may be managed without suspition*. For if Letters Missive fall into their hands; that have some command and authority over those that write; or over those to whom they were written; though the Cypher it self be sure and impossible to be *decypher'd* yet the Matter is liable to examination and question; unless the *Cypher* be such, as may be void of all suspition, or may elude all examination. *As for the shifting off examination*, there is ready prepared a new and profitable invention to this purpose; which, seeing it is easily procured, to what end should we report it, as *Deficient*. The invention is this: That you have two sorts of *Alphabets*, one of *true Letters*, the other of *Non-significants*; and that you likewise fold up two *Letters*; one which may carry the secret, another such as is probable the Writer might send, yet without peril. Now if the Messenger be strictly examined concerning the *Cypher*, let him present the *Alphabet of Non-significants* for *true Letters*, but the *Alphabet of true Letters* for *Non-significants*: by this Art the Examiner falling upon the *exterior Letter*, and finding it probable, shall suspect nothing of the *interior Letter*. But that jealousies may be taken away, we will annex another invention, which, in truth, we devised in our youth, when we were at *Paris*: and is a thing that yet seemeth to us not worthy to be lost. It containeth the *highest degree of Cypher*, which is to signify *omnia per omnia*, yet so, as the *writing infolding*, may bear a quintuple proportion to the *writing infolded*; no other condition or restriction whatsoever is required. It shall be performed thus: First, let all the *Letters of the Alphabet*, by transposition, be resolv'd into two *Letters* only; for the transposition of two *Letters* by five placings will be sufficient for thirty two Differences, much more for twenty four, which is the number of the *Alphabet*. The example of such an *Alphabet* is on this wise.

An Example of a Bi-literate Alphabet.

A B C D E F
 Aaaaa.aaaab.aaaba.aaabb.aabaa.aabab.
 G H I K L M
 aabba.aabbb.abaan abaab.ababa.ababb
 N O P Q R S
 abbaa.abbab.abbba.abbbb.baaaa.baaab
 T V W X Y Z
 baaba.baabb.babaa.babab.babba.babbb.

Neither is it a small matter these *Cypher-Characters* have, and may perform : For by this *Art* a way is opened, whereby a man may express and signifie the intentions of his mind; at any distance of place, by objects which may be presented to the eye, and accommodated to the ear : provided those objects be capable of a two-fold difference only ; as by Bells, by Trumpets, by Lights and Torches, by the Reports of Muskets, and any Instruments of like nature. But to pursue our enterprise, when you address your self to write, resolve your inward-infolded Letter into this *Bi-literary Alphabet*. Say the *interiour Letter* be

Fuge.

Example of Solution.

F. V. G. F.
 Abab. baabb. aabba. aabaa.

Together with this, you must have ready at hand a *Bi-formed Alphabet*, which may represent all the *Letters* of the *Common Alphabet*,

as well Capital Letters as the smaller Characters in a double form, as may fit every mans occasion.

An Example of a Bi-formed Alphabet.

{ a. b.
 { A. A. a. a. B. B. b. b. C. C. c. c. D. D. d. d.
 { a. b.
 { E. E. e. e. F. F. f. f. G. G. g. g. H. H. h. h.
 { a. b.
 { I. I. i. i. K. K. k. k. L. L. l. l. M. M. m. m.
 { a. b. a.
 { N. N. n. n. O. O. o. o. P. P. p. p. Q. Q. q. q. R.
 { b. a. b.
 { R. r. r. S. S. s. s. T. T. t. t. U. U. u. u.
 { a. b. a.
 { W. W. w. w. X. X. x. x. Y. Y. y. y. Z. Z. z. z.

Now

Now to the interiour Letter, which is Bi-literate, you shall fit a Bi-formed exterior Letter, which shall answer the other, Letter for Letter, and afterwards set it down. Let the exterior example be.

Manere te volo, donec venero.

An Example of Accommodation.

F V G F
a ababb aab baa bbaaa baa.
Manere te volo donec venero

We have annex likewise a more ample Example of the Cypher of Writing *omnia per omnia*: An interiour Letter, which to express, we have made choice of a *Spartan* Letter sent once in a *Scytale* or round Cypher'd-staff.

Perditae Res Mindarus cecidit. Milites
esuriunt. Neque hinc nos. extricare, neque
hic diutius. manere Possumus

An exterior Letter, taken out of the first Epistle of *Cicero*, where-
 in a *Spartan* Letter is involved.

Ego, omni, officio, ac potius pietate erga te
 eaeteris, satisfacio omnibus: Mihi, ipse nunquam
 quam satisfacio. Tanta est enim magni-
 tudo, tuorum erga me meritorum, ut quoni-
 am tu, nisi perfectare, de me non conquies-
 si: ego, quia non idem in tua causa efficio,
 vitam mihi esse acerbam putem. In cau-
 sa haec sunt: Ammonius Regis Legatus
 aperte pecunia nos oppugnat: Res agitur
 per eosdem creditores, per quos, cum tu ode-
 ras, agebatur. Regis causa, si qui sunt,
 qui velint, qui pauci sunt, omnes ad Pompe-
 ium rem deferri volunt. Senatus Reli-
 gionis calumniam, non religione, sed ma-
 lenolentia, et illius Regiae largitionis
 invidia, comprobat. &c.

The knowledge of *Cyphering*, hath drawn on with it a knowledge relative unto it, which is the knowledge of *Discyphering*, or of *Discreting Cyphers* though a man were utterly ignorant of the *Alphabet* of the *Cypher*, and the *Capitulations* of secrecy past between the Parties. Certainly it is an Art which requires great pains and a good wit, and is (as the other was) consecrate to the Counsels of Princes: yet notwithstanding by diligent prevision it may be made unprofitable, though, as things are, it be of great use. For if good and faithful *Cyphers* were invented and practised, many of them would delude and forestall all the cunning of the *Decypherer*, which yet are very apt and easie to be read or written: but the rawness and unskilfulness of Secretaries, and Clerks in the Courts of Princes, is such, that many times the greatest Matters are committed to futile and weak *Cyphers*. But it may be, that in the enumeration, and, as it were, taxations of Arts, some may think that we go about to make a great Muster-rol of Sciences, that the multiplication of them may be more admired; when their number perchance may be displayed, but their forces in so short a Treatise can hardly be tried. But for our parts we do faithfully pursue our purpose, and in making this *Globe of Sciences*, we would not omit the lesser and remoter Islands. Neither have we (in our opinion) touched these Arts perfunctorily, though cursorily; but with a piercing stile extracted the Marrow and Pith of them out of a Mass of Matter. The judgement hereof we refer to those who are most able to judge of these Arts. For seeing it is the fashion of many who would be thought to know much, that every where, making ostentation of words and outward terms of Arts, they become a wonder to the ignorant, but a derision to those that are Masters of those Arts: we hope that our Labours shall have a contrary success, which is, that they may arrest the judgement of every one who is best vers'd in every particular Art; and be undervalued by the rest. As For those Arts which may seem to be of inferiour rank and order, if any man think we Attribute too much unto them; let him look about him; and he shall see that there be many of special note and great account in their own Country; who when they come to the chief City or Seat of the Estate, are but of mean rank, and scarcely regarded: so it is no marvail if these sleighter Arts, placed by the Principal and Supreme Sciences, seem petty things; yet to those that have chosen to spend their Labours and Studies in them, they seem great and excellent Matters. And thus much of the *Organ of Speech*.

CHAP. II.

- I. The Doctrine touching the Method of Speech is assigned a substantial and principal part of Traditive knowledge: It is entituled, The wisdom of Delivery. 2. The divers kinds of Methods are enumerated: their Profits and Disprofits are annexed. 3. The parts of Method two.

Let us now come to the doctrine concerning the Method of Speech. This hath been handled as a part of Logick, so it hath found a place in Rhetorick by the name of Disposition. But the placing of it as a part of the Train of other Arts, hath been the cause that many things which refer unto it, and are useful to be known, are pretermis'd: wherefore we thought good, to constitute a substantial and principal Doctrine, touching Method, which by a general name we call the wisdom of Tradition. The kinds of Method, seeing they are divers, we will rather reckon them up, than divide them. But for one onely Method, and continued Dichotomies we need not speak much of them; for it was a little Cloud of knowledge which was soon dispersed. Certainly a trivial invention, and an infinite prejudice to Sciences; for these Dichotomists, when they would wrest all things to the Laws of their Method, and whatsoever doth not aptly fall within those Dichotomies they would either omit or bow contrary to their natural inclination; they bring it so to pass, that the Kernels and Grains of Sciences leap out, and they clasp and inclose only the dry and empty husks: So this kind of Method brings forth fruitless Compendis, destroys the substance of Sciences.

II. Wherefore let the first difference of Method be set down, to be either Magistral, or Initiative: neither do we so understand the word Initiative, as if this should lay the ground-work, the other raise the perfect building of Sciences; but in a far different sence, (borrowing the word from sacred Ceremonies) we call that Initiative Method, which discloseth and unvails the Mysteries of Knowledges: For Magistral teacheth, Initiative insinuateth: Magistral requires our belief to what is delivered, but Initiative that it may rather be submitted to examination. The one delivers popular Sciences fit for Learners; the other, Sciences as to the Sons of Science: In sum, the one is referred to the use of Sciences as they now are; the other to their continuation, and further propagation. The later of these, seems to be a deserted and an inclosed path. For Knowledges are now delivered, as if both Teacher and Schollar sought to lay claim to error, as upon contract. For he that teacheth, teacheth in such a manner as may best be believed, not as may be best examined: and he that learneth, desires rather present satisfaction, than to expect a just and stayed enquiry; and rather not to doubt, than not to err: So as both the Master, out of a desire of glory, is watchful, that he betray not the weakness of his knowledge; and the Scholar, out of an averse disposition to labour, will not try his own strength. But Knowledge, which is delivered as a thread to be spun on, ought to be intima-

ted

ted (if it were possible) into the mind of another, in the same Method wherein it was at first invented. And surely this may be done in knowledge acquired by *Induction*: But in this same anticipated and prevented knowledge, which we use, a man cannot easily say, by what course of study he came to the knowledge he hath obtained. But yet certainly more or less a man may revisit his own *Knowledge*, and measure over again the footsteps of his *Knowledge*, and of his consent; and by this means so transplant *Science* into the mind of another, as it grew in his own. For it is in *Arts*, as it is in *Plants*; if you mean to use the *Plant*, it is no matter for the *Roots*; but if you would remove into another soyl, than it is more assured to rest upon roots than slips. So the *Delivery* of Knowledge, as it is now used, doth present unto us fair *Bodies* indeed of *Sciences*, but without the *Roots*; good, doubtless for the *Carpenter*, but not for the *Planter*. But if you will have *Sciences* grow, you need not be so solicitous for the *Bodies*; apply all your care that the *Roots* may be taken up sound, and entire, with some little earth cleaving to them. Of which kind of *Delivery*, the *Method* of the *Mathematicks* in that subject, hath some shadow, but generally I see it neither put in ure, nor put in *Inquisition*; and therefore number it amongst *Deficients*, and we will call it *Traditionem Lampadis*, the *Delivery* of the *Lamp*, or the *Method* bequeathed to the sons of *Sapience*.

§ Another diversity of *Method* followeth, in the intention like the former, but for most part contrary in the issue. In this both these *Methods* agree, that they separate the vulgar *Auditors* from the *Select*; here they differ, that the former introduceth a more open way of *Delivery* than is usual; the other (of which we shall now speak) a more reserved and secret. Let therefore the distinction of them be this, that the one is an *Exoterical* or revealed; the other an *Acroamatick*, or concealed *Method*. For the same difference the Ancients specially observed in publishing Books, the same we will transfer to the manner it self of *Delivery*. So the *Acroamatick Method* was in use with the *Writers* of former Ages, and wisely, and with judgement applied; but that *Acroamatick* and *Ænigmatick* kind of expression is disgraced in these later times, by many who have made it as a dubious and false light, for the vent of their counterfeit merchandise. But the pretence thereof seemeth to be this, that by the intricate envelopings of *Delivery*, the *Prophane* *Vulgar* may be removed from the secrets of *Sciences*; and they only admitted, which had either acquired the interpretation of *Parables* by *Tradition* from their *Teachers*; or by the sharpness and subtilty of their own wit, could pierce the veil.

§ Another diversity of *Method* follows, of great consequence to *Sciences*; which is, when *Sciences* are delivered by way of *Aphorism*, or *Methods*: For it is a thing worthy to be precisely noted, that it hath been often taken into *Custom*, that men out of a few *Axioms* and *Observations* upon any Subject, have made a compleat and solemn Art, filling it with some discourses of wit, illustrating it with examples, and knitting it together by some *Method*. But that other way of *Delivery* by *Aphorisms*, brings with it many advantages, whereto *Delivery* by *Method* doth not approach. For first it tries the *Writer* whether he be superficial or solid in knowledge. For *Aphorisms* except they should

be altogether ridiculous, cannot be made but out of the pyth and heart of Sciences: For Illustration and Excussion are cut off; variety of examples is cut off; Deduction and Connection are cut off; Description of Practice is cut off; so there remaineth nothing to fill the Aphorisms, but a good quantity of observations. And therefore no man can suffice, nor in reason will attempt to write *Aphorisms*, who is not copiously furnish'd and solidly grounded. But in *Methods*,

Horat.de
Art.P.

— — — *Tantum series, juncturaque pollet;*
Tantum de medio sumptis accedit Honoris.

As oftentimes they make a great shew of (I know not what) singular Art, which if they were disjoynted, separated, and laid open, would come to little or nothing. Secondly, *Methodical Delivery* is more fit to win consent or belief; but less fit to point to Action; for they carry a shew of *Demonstration in Orb* or Circle, one part illuminating another; and therefore do more satisfy the understanding; but being that Actions in common course of life are disperst, and not orderly digested, they do best agree with disperst Directions. Lastly, *Aphorisms* representing certain Portions only, and as it were fragments of Sciences, invite others to contribute, and add something; whereas *Methodical Delivery*, carrying shew of a total and perfect Knowledge, forthwith secureth men as if they were at the furthest.

§ Another diversity of Method follows, which is likewise of great weight, which is when *Sciences* are deliver'd either by *Assertions* with their *Proofs* annex; or by *Questions* together with their *Determinations*. The later kind whereof, if it be immoderately followed, is as prejudicious to the progression of Sciences, as it is to the fortunes and proceedings of an Army, to go about to besiege every little Fort or Hold. For if the field be kept, and the sum of the enterprize with diligence pursued, those smaller places will come in of themselves. Yet this I cannot deny, that it is not alway safe to leave any great and fortified town at his back. *In like manner the use of Consultations* in the Delivery of Sciences ought to be very sparing, and to serve only to remove and break strong Preoccupations and Prejudgements of mens minds, and not to excite and provoke smaller Doubts.

§ Another diversity of Method followeth, which is, that the *Method* be accommodated to the purposed matter which is to be handled, For there is a great difference in Delivery of the *Mathematicks*, which are of knowledges the most abstracted and most simple; and the *Politicks*, which are the most immerst and compounded: Neither can an *uniformity* of *Method* (as we have observ'd already) be fitly sort'd with *multi-formity* of *Matter*; and therefore as we have allowed *Particular Topics* for *Invention*; so we would likewise in some measure have *Particular Methods* for *Tradition*.

§ Another diversity of Method followeth, with judgement to be practis'd in the Delivery of Sciences; and it is directed according to the light of *Informations*, and *anticipations*, of the Knowledge to be deliver'd, infused, and impressed in the minds of the Learners: For that Knowledge which is new and foreign to mens minds, is to be deliver'd in another form than that which by long receiv'd, and imbibed opinions is naturalized

ralized and made familiar : And therefore *Aristotle* when he thinks to tax *Democritus* doth in truth commend him, where he saith, *If we shall indeed dispute, and not follow after similitudes, &c.* Charging it as a defect upon *Democritus* that he was too copious in *Comparisons*. But those whose conceits are seated in popular opinions, have nothing else to do but to dispute and prove. Whereas on the contrary those whose conceits are beyond popular opinions, have a double labour; first, that what they produce may be conceiv'd; then, that they be proved. So that it is of necessity with them to have recourse to *Similitudes* and *Translations*, whereby they may insinuate themselves into mens capacities. Therefore we see in the infancy of Learning, in rude times, when those *Comprehensions* which are now *Vulgar* and *Trivial*, were then new and unheard of; the world was full of *Parables* and *Similitudes*; for otherwise men would have pass'd over without mark or due attention, or else rejected for *Paradoxes*, that which was propounded. For it is a rule of *Traditive Art*, That whatsoever Science is not consonant to *Anticipations* or *Presuppositions*, must pray in aid of *Similitudes* and *Comparisons*. And thus much of the divers sorts of *Methods*, namely such as have not heretofore been noted by others. As for those other *Methods*, *Analytick*; *Systatick*; *Dieritick*; *Cryptick*; *Homerical*, and the like; they have been well invented and distributed; nor do we see any cause why we should dwell upon them.

III But these are the kinds of *Method*; the *Parts* are two; the one of the *Disposition* of a whole work, or of the *Argument* of some Book; the other of the *Limitations* of *Propositions*. For there belongs to *Architecture* not only the frame of the whole Building; but likewise the form and figure of the *Columns*; *Beams*, and the like; and *Method* is as it were the *Architecture* of *Sciences*. And herein *Ramus* merited better a Ramus. great deal in reviving those excellent Rules $\kappa\alpha\delta' \ \acute{\omicron}\lambda\lambda\ \pi\epsilon\rho\acute{\iota}\tau\omicron\nu, \ \pi\acute{\alpha}\nu\tau\omicron\varsigma, \ \kappa\alpha\delta' \ \alpha\omega\pi\iota$, than in obtruding one only *Method* and *Dichotomie*. But it falls out I know not by what fate, that of humane things (according as the Poets often feign) the most precious have the most pernicious Keepers. Certainly diligent endeavours about the rank and file of *Propositions*, cast him upon those *Epitomes* and *Shallows* of *Sciences*; for he had need set out in a lucky hour, and to go on by the conduct of a happy Genius, that attempts to make *Axioms* of *Sciences* *Convertible*; and yet withal not make them *Circular*, or returning into themselves; notwithstanding we deny not, but that *Ramus's* intention in this kind is profitable. There remains yet two *Limitations* of *Propositions*, besides that they may be made *Convertible*; the one touching the *Extension*; the other touching the *Production* of them. Surely *Knowledges* have, if a man mark it well, two other dimensions besides *Profundity*; namely *Latitude* and *Longitude*. For *Profundity* is refer'd to the *Truth* and *Reality* of them; and these make them solid. As for the other two, *Latitude* may be taken and reckoned of *Science* into *Science*; *Longitude* may be accepted and understood from the highest general *Proposition*, to the lowest particular in the same *Science*. The one comprehends the bounds and true limits of *Sciences*, that *Propositions* may be properly, not promiscuously handled; and that all *Repetition*, *Excursion*, and *Confusion* may be avoided: the other gives rule how far, and to what degree of *Particularity*, *Propositions* of *sciences* may be deduced. Certainly

Dion. In
Anton. P.

there is no doubt but somewhat must be left to use and Practice; for for we ought to avoid the precise error of *Antonius Pius*, that we be not *Cumini seiores in Scientiis*, *Mincers of Commis in sciences*; nor that we multiply divisions to the lowest Particularity. Wherefore how we should moderate our selves in this point is well worth the enquiry. For we see too remote Generalities, unless they be drawn down, do little inform, nay rather expose Knowledge to the scorn of Practical men; and are no more ayding to Practice, than an *Ortelius's Universal Mapp* is to direct the way between *London* and *York*. Surely the better sort of Rules have not unfitly been compared to Glasses of steel, wherein you may see the Images of things, but first they must be filed and burnisht: so Rules and Precepts do then help, after they have been laboured and polisht by Practice; but if those Rules may be made clear and Chry-stalline aforehand, it would be the more excellent, because they would less stand in need of diligence, labour and exercise after. *And thus much of the Knowledge of Method*, which we have named the *Wisdom of Delivery*. Nor can we here premit that many more vain-glorious, than learned have laboured about a *Method*, which is not worthy the name of a lawful *Method*, seeing it is rather a *Method of Imposture*; which yet to some vaporious, and vain-boasting natures, without doubt hath been most acceptable. This *Method* doth so sprinkle drops of any Knowledge, that any half-learned Clerk may with a little superficial Knowledge make a glorious shew. Such was the Art of *Lullius*; such the *Typocosmie* drawn by many; which were nothing else but a heap and mass of words of all Arts, to give men countenance; that those which have the terms of Art, might be thought to understand the Arts themselves. Which kind of Collections are like a Fripper's or Broker's shop, that hath ends of every thing, but nothing of worth.

Lullius.

CHAP. III.

- I The Grounds and Duty of Rhetorick. II. Three Appendices of Rhetorick which appertain only to the Preparatory Part. The Colours of Good and Evil, as well simple as Compared. III. The Antitheta of things. IV. Lesser stiles, or usual forms of speech.

Exod. 7.

Now come we to the Knowledge which concerneth the Illustration of Speech; it is that which is called *Rhetorick*, or Art of Eloquence; a Science certainly both excellent in it self, and by Authors excellently well laboured. But *Eloquence*, if a man value things truly, is without doubt inferior to *Wisdom*. For we see how far this leaves that behind, in those words of God to *Moses*, when he disabled himself for that service imposed upon him, for want of this Faculty; *There is Aaron, he shall be thy Speaker, thou shalt be to him as God*. Yet in profit and popular esteem, *Wisdom* gives place to *Eloquence*; for so *Solomon*, *Sapiens corde appellatur prudens; sed dulcis eloquio majora reperiet*; signifying not obscurely that profoundness of *Wisdom* will help a man to fame and admiration; but that it is *Eloquence* which prevails in business and active Life.

Prov.
XVI.

Life. And as to the labouring and culture of this Art, the Emulation of *Aristotle* with the *Rhetoricians* of his time, and the earnest and vehement diligence of *Cicero*, labouring with all might to raise and ennoble that Art, joyned with long Experience, hath made them in their Books written of this Art to exceed themselves. Again, the excellent example of *Eloquence* in the *Orations* of *Demosthenes*, and *Cicero*, added to the subtilty and diligence of Precepts, have doubled the Progression in this Art. Wherefore the *Deficients* which we find in this Art, will be rather in some Collections, which may as Hand-maids attend the Art; than in the Rules and the use of the Art it self. For even then when we made mention of a *Promptuary Knowledge* in *Logick*, we engaged our selves by Promise, to exhibit Examples at large thereof in *Rhetorick*.

Notwithstanding that we may stir up and subdue the earth a little, about the Roots of this Science, as our manner is to do in the rest; surely *Rhetorick* is sub-servient to the imagination, as *Logick* is to the Understanding. And the office and duty of *Rhetorick* (if a man well weigh the matter) is no other, than to apply and command the *Dictates of Reason* to the *Imagination*, for the better moving of the *Appetite and Will*. For we see the government of Reason is disquieted, and assailed three ways; either by *Illaqueation* of *Sophisms*, which pertains to *Logick*; or by the *deceits of words*, which pertains to *Rhetorick*; or by the *violence of Passions*, which pertains to *Morality*: And as in negotiation with others, a man may be wrought and overcome either by *Cunning*, or by *Importunity*, or by *Vehemency*, so in that inward negotiation which we practise within our selves, either we are undermined by the *Fallacies of Arguments*; or solicited and disquieted by the *assiduity of impressions and observations*; or shaken and transported by the *assault of affections and passions*. But yet the state of man's nature is not so unfortunate, as that those *Powers and Arts* should have force to disturb Reason, and not to establish and advance it; nay, rather much more do they conduce to this effect, than to the contrary. For the end of *Logick*, is to teach a form of Arguments, to secure Reason, and not to entrap it; so the end of *Morality* is to compose the *Affections*, that they may fight for Reason, and not that they may invade it; the end likewise of *Rhetorick*, is to fill the *Imagination* with observations and resemblances, which may second Reason, and not oppress and betray it: for these abuses of *Arts* come in but *ex obliquo* for prevention, not for practice. And therefore it was great injustice in *Plato* (though springing out of a just hatred to the *Rhetoricians* of his time) to place *Rhetorick* amongst *Arts voluptuary*, resembling it to *Cookery*, that did marr wholesome meats, and help unwholesome by the the abuse of of variety of sauces and seasonings, to the pleasure of the taste. But be it far away, that speech should not be much more conversant in adoring that which is fair and honest, than in colouring that which is foul and evil: for this is every where at hand; and there is no man but speaks more honestly than he can do or think. Indeed it was excellently noted by *Thucydides*, that some such thing as this, used to be objected to *Cleon*, that because he used to hold the bad side in causes he pleaded, therefore he was ever inveighing against *Eloquence*, and good speech, for he knew no man could speak fair of things sordid and base

In Menon. base, but in things honest it was an easie matter to be *eloquent*. Plato saith elegantly (though the saying be now popular) *That vertue, if she could be seen, would move great love and affection*: but Rhetorick paints our vertue and goodnes to the life, and makes them in a sort conspicuous: For seeing they cannot be shewed to sense in corporal shape; the next degree is by the fair attire of words, to shew them to the Imagination, so far as may be in a lively representation: for the custom of the Stoicks was deservedly derided by *Cicero*, who labour'd to thrust vertue upon men, by concise and sharp sentences and conclusions, which have no sympathy with the Imagination and Will. Again, if the *Affections* themselves were brought into order, and so reclaim'd from exorbitant courses, as to be pliant and obedient to *Reason*, it were true, there should be no great use of perswasions and insinuations, which might give access to the mind; but it would be enough if things were nakedly and simply propos'd and proved: but on the contrary, the *Affections* make such revolts; and raise up such mutinies and seditions (according to that

Tusc. Q.
lib.

Ovid.
Met. 7.

—*video meliora Proboque
Deteriora sequor*—

That *Reason* would be forcibly led away into servitude and captivity, if the perswasion of *Eloquence* did not practise, and win the Imagination from the *Affections* part, and contract a league between *Reason* and *Imagination* against *Affections*. For it must be noted that the *Affections* themselves are ever carried to a good Apparent, and, in this respect, have somewhat common with *Reason*: but herein they differ; that the *affections behold principally good in present*; *Reason beholds a far off, even that which is future, and in summ.* And therefore seeing things in present sight do more strongly fill the *Imagination*; *Reason* commonly yields and is vanquish't: but after that by *Eloquence*, and the force of perswasion, things *future* and *remote* are propos'd, and beheld, as if they were actually present; then upon the falling off of the *Imagination*, to take part with *Reason*, *Reason* prevails. Let us conclude therefore, that *Rhetorick*, can no more be charged with the colouring and adorning of the worse part than *Logick*, with the setting out and suborning of Sophisms: for who knows not that the doctrine of contraries are the same, though they be opposite in use. Again, *Logick* differs from *Rhetorick*; not only in this, that the one (as commonly is said) is like the *First*, the other like the *Palm*; that is, one handleth things closely, the other at large: but much more in this, that *Logick* considereth *Reason* in its *Naturals*; *Rhetorick*, as it is planted in vulgar opinion. Therefore *Aristotle* doth wisely place *Rhetorick* between *Logick* on the one side, and *Ethick* with *Civil Knowledge* on the other: as participating of both. For the *Proofs* and *Demonstrations* of *Logick*, are to all men indifferent and the same; but the *Proofs* and *Perswasions* of *Rhetorick*, must be varied according to the *Auditors*, that a man, like a skilful *Musician* accommodating himself to different ears, may become —

Orpheus in sylvis, inter Delphinas Arion.

Which

Which *Application and variance of speech* (if a man desire indeed the perfection and height thereof) ought to be so far extended, *that if the same things should be spoken to several persons, he should speak to them all respectively, and several ways.* Though it is certain that the greatest Orators many times may want *this politick and active part of Eloquence in private Speech*; whilst by the observing the Grace, and Elegant forms of Expression, they loose that *voluble application*; and *characters of speech*, which in discretion they should have used towards particular persons. Surely it will not be amiss to recommend this whereof we now speak, to a new *Inquiry*, and to call it by name, *The Wisdom of private Speech*, and to refer it to *Deficients*; a thing certainly which the more seriously a man shall think on, the more highly he shall value; and whether this kind of *Prudence* should be placed between *Rhetorick* and the *Politicks*, is a matter of no great consequence.

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PRUDEN-
TIA SER-
MONIS
PRIVATI.

§ Now let us descend to the *Deficients* in this Art, which (as we have said before) are of such nature as may be esteemed rather *Appendices*, than *portions of the Art* it self; and pertain all to the *Promptuary part of Rhetorick*;

II. First, we do not find that any man hath well pursued or supplied the wisdom and the diligence also of *Aristotle*: for he began to make a collection of the *Popular Signs and Colours of Good and Evil in appearance, both simple and comparative*, which are, indeed, the *Sophisms of Rhetorick*: they are of excellent use, specially referred to business, and the *wisdom of private speech*. But the labours of *Aristotle* concerning these *Colours*, is three ways *defective*; *First*, that there being many, he recites very few. *Secondly*, because their *Elenchs* or *Reprehensions* are not annexed. *Thirdly*, that he conceiv'd but in part the use of them, for their use is not more for *Probation*, than for *impression* and raising the affections. For many *Forms of speaking* are equal in *signification*, which are different in *impression*: for that which is sharp pierceth more forcibly, than that which is flat, though the strength of the percussion be the same. Surely there is no man but will be a little more raised by hearing it said, *Your enemies will triumph in this*,

*
COLORES
BONI ET
MALI.
In Trop.

Hoc Ithacus velit & magno mercentur Atridae,

Virg. Aen.
2.

Then if it should be merely thus rendred, *This will be to your disadvantage*; wherefore the *sharp-edged, and quick-pointed speeches* are not to be despised. And being we report this part as *Deficient*, we will, according to our custom, confirm it by *Examples*, for *Precepts* have not sufficiently illustrated the *Point*.

Examples

Examples of the Colours of Good and Evil, both Simple and Comparative.

The Colour.

1. *What men Praise and Celebrate, is Good; what they Dispraise, and Reprehend is Evil.*

The Reprehension.

Plutar. in
vita.

THis Colour deceives four ways; either through *Ignorance*, or through *Fraud*, or out of *Partialities* and *Faction*; or out of the *natural disposition* of such as *Praise* or *Dispraise*. Out of *Ignorance*; for what's the judgement of the common People to the trial and definition of *Good* and *Evil*? *Phocion* discern'd better, who when the People gave him an unusual applause, demanded *whether he had not perchance some way or other done amiss*? Out of *Fraud* and *Circumventive cunning*, for Praisers and Dispraisers many times do but aim at their own ends, and do not think all they say

Horat. lib.
2. Epl.

Laudat venaleis qui vult extrudere merces,

Prov. 20.

So, *It is naught, it is naught saith the Buyer, and when he is gone he vaunteth.*— Through *Factions*; for it is plain that men are wont to extol their own side, beyond the modest bounds of desert, but to depress those of the contrary part below their demerit. Through an *inbred disposition*; for some men are by nature made and moulded to servile Flattery; others on the other side are by nature *Sowre* and *Censorious*; so as in their commendations, or vituperations they are only indulgent to their own humours, little or nothing solicitous of truth.

The Colour.

2. *What draws Commendation even from an Enemy, is a great Good, What moves Reprehension even from a Friend, is a great Evil.*

The Colour seems to be built upon this foundation; that whatsoever we speak against our will, and contrary to the affection and propension of our own mind, it is easily believed, that the force of truth wrested the same from us.

The Reprehension.

THis Colour deceives through the Art and Subtilty both of Enemies and Friends: for Enemies do sometimes ascribe *Praises*, not unwillingly, nor as urg'd from the force of Truth: but yet selecting such points

points of *Praise*, as may create envie and danger to their Enemies. wherefore a superstitious conceit went currant amongst the Grecians as they believed, *that he who was praised by another maliciously, and to his hurt, should have a push rise upon his nose.* Again it deceives, because enemies sometimes attribute *Praises*, as certain brief Prefaces, that so they may more freely and spitefully traduce afterwards. On the other side, this *Colour* deceives through the slight and cunning of Friends; for their custom is sometimes to acknowledge and lay open the infirmities of their Friends, not out of a tender Conscience from the impression of Truth, but making choice of such imperfections, as may least prejudice the reputation, or provoke the indignation of their Friends; as if in all other points they were excellent men. *Again it deceives*, because Friends use their Reprehensions (as we have observed Enemies do their Praises) as certain short Introductions, that they may expatiate more amply in their commendations afterwards.

The Colour.

3 *Whose Privation is Good, that same is Evil; Whose Privation is Evil, that same is Good.*

The Reprehension

THis *Colour* deceives two ways; either by reason of the *Comparison* of Good and Evil; or by reason of the *Succession* of Good to Good, or of Evil to Evil. By reason of *Comparison*; if it were Good for mankind to be deprived of the eating of Acorns, it follows not that such food was Evil, but that Mast was Good, Corn Better. Neither if it were Evil for the State of Sicily to be deprived of Dionysius the Elder; doth it follow that the same Dionysius was a Good Prince; but that he was less Evil than Dionysius the younger. By reason of *Succession*; for the *Privation* of some Good, doth not always give place to Evil; but sometimes to a greater Good; as when the Flower falleth, Fruit succeedeth. Nor doth the *Privation* of some Evil always yield place to Good, but sometimes to a greater Evil; for Clodius an enemy being taken away, Milo withal forfeited a fair harvest of Glory.

The Colour.

4 *That which draws neer to Good or Evil, the same is likewise Good or Evil: But that which is remov'd from Good is Evil; from Evil, is Good.*

Such commonly is the internal condition of things, that things of like Quality, and consenting in Nature, consent likewise in place, and are, as it were, quartered together, but such things as are contrary and distant in Nature, are also severed and disjoyned in place; in regard that all things desire to approach things symbolizing with them; to exterminate and chase away their contraries.

The Reprehension.

BUt the *Colour* deceives three ways: First, in respect of *Destitution*: Secondly, in respect of *Obscuration*: Thirdly, in respect of *Protection*. In regard of *Destitution*, it comes to pass that those things, which in their kind are most ample, and do most excel, do (as much as may be) ingross all to themselves, and leave that which is next them destitute and pined; wherefore you shall never find thriving Shoots or Under-wood near great spread Trees: so he said well——

——*Divitis servi maximè servi*; ——

and the derision was pleasant of him that compared the lower Train of Attendants in the Courts of Princes, to *Fasting-days* which were next to Holy-days, but otherways were the leanest days in all the week. In regard of *Obscuration*, for this is the quality of things in their nature excellent and predominant, that though they do not extenuate and impoverish the substance of things adjoining to them, yet they darken and shadow them: And this the Astronomers observe of the the Sun, that it is good by Aspect, but evil by Conjunction and Approximation. In regard of *Protection*; for things approach and congregate not only for consort and similitude of Nature; but even that which is evil (especially in Civil Matters) approacheth to good for Concealment and *Protection*; so wicked persons betake themselves to the sanctuary of the Gods, and Vice it self assumes the shape and shadow of Virtue.

Sape latet vitium proximitate boni.

So on the other side, *Good* draws near to *Evil*, not for society, but for conversion and reformation of it into *Good*; and therefore Physicians are more conversant with the sick than the sound; and it was objected to our Saviour that he conversed with Publicans and Sinners.

Mat. 9.

The Colour.

5 That side, to which all other Parties and Sects unanimously confer second voices, after every particular hath asserted a Primacy to it self, seems to be justly prefer'd before the rest: for every Sect may be presum'd to usurp the first place, out of Passion and Partiality; but to yield the second place, out of Truth and Merit.

Cicero.
Q. A.

So Cicero went about to prove the Sect of Academicks, which suspended all asseveration, for to be the best of all Philosophies; for (saith he) ask a Stoick which Sect is better than other, he will prefer his own before the rest: Then ask him which approacheth next in dignity, he will confess the Academick, so deal with an Epicure that will scant endure the Stoick to be in the sight of him, so soon as he hath placed himself in the chief room, he will place the Academick next him. So if a place were void, and a Prince should examine Competitors severally, whom next themselves they

they would specially commend, it were like that the most second voices would concur upon the ablest men.

The Reprehension.

THE fallax of this *Colour* is in respect of *Envy*: for men are accustomed after themselves, and their own faction, to incline and bend unto them, which of all the rest are the softest and weakest, and are least in their way in despiht and derogation of them who have most insulted over them, and have held them hardest to it.

The Colour.

6 *That whose excellency, and supereminency is better, the same is every way better.*

Appertaining to this are the usual forms; *Let us not wander in generalities, let us compare particular with particular.*

The Reprehension.

THIS Apparence seems to be of strength, and rather *Logical*, than *Rhetorical*: yet is it very often a *fallax*. First, because many things are casual, which if they escape, prove excellent; so that in kind they are inferiour, because they are so subject to peril, and to perish before they come to perfection; but in the *Individual* more noble. Of this sort is the *Blossom of March*, whereof the French Proverb goes

*Burgeon de Mars, Enfants de Paris,
Si un eschappe bien vaut dix.*

So that the *Blossom of May* generally is better than the *Blossom of March*, and yet in particular the best *Blossom of March*, is better than the best *Blossom of May*. Secondly it deceives, because the nature of things, in some kinds, or species, is to be more equal, in some kinds more unequal: as it hath been observed that warmer climates produce generally more acute wits; but in Northern climates the wits of chief sur-pas the acutest wits of hotter Regions. So in many Armies, if the Matter should be tried by Duel between particular champions singled out, perchance the victory should go on the one side; if it be tried by the gross, it would go on the other side: for excellencies, and eminencies go, as it were, by chance, but kinds are governed by Nature and Art. So likewise generally Metal is more precious than Stone; and yet a *Diamond* is more precious than *Gold*.

The Colour.

7 *That which keeps the Matter entire in our own hands, is Good; that which leaves no passage open for retrait, is Evil: for not to be able to come off is a kind of impotency, but the Power of disengaging our selves is good.*

Hereof *Æsop* framed the Fable of the two Frogs, that consulted together in the time of drouth (when many plashes, they had repaired to, were dry) what was now at last to be done; the first said *let us go down into a deep well, for it is not like the water would fail there, to whom the other replied, yea, but if it do fail; how shall we get up again?* The ground of this colour is, that humane actions are so uncertain and exposed to perils, *as that seemeth to be the best course, which hath most passages out of it.* Appertaining to this perswasion the *Forms* are; *you shall wholly engage and oblige your self, non tantum, quantum voles, sumes ex fortuna, you shall not be your own carver, nor keep the matter in your own hand, &c.*

The Reprehension.

THE *Fallax* of this Colour is first, because in Humane Actions Fortune urgeth us at length to decree, and to resolve upon somewhat: for as he saith elegantly, *not to resolve, is to resolve*; so that many times a suspension of a final decision engageth and implicates us in more necessities, than if we had determin'd of somewhat. And this disease of the mind is like that of covetous men translated from the desire of retaining wealth, to the desire of retaining Free-will and Power: for the covetous man will enjoy nothing, lest he should subtract from the total; and this kind of *Sceptick* will execute nothing, that all things may be entire and indifferent to him. *Secondly, it deceives* because necessity, and this same *jacta est alea*, awakens the powers of the Mind and puts the spurs to any enterprise; as he saith, *Ceteris pares, necessitate certè superiores estis.*

The Colour.

8 *What a man hath contracted through his own Default, is a greater Evil; what is imposed from without, is a less Evil.*

The reason hereof, is, because the sting and remorse of the Mind accusing it self, doubles all adversity; contrariwise the recording inwardly that a man is clear and free from fault, and just imputation, doth much attemper outward calamities. Wherefore the Poets do exceedingly aggravate those passionate Lamentations, as fore-runners to desperation; when a man accuseth and tortures himself.

Virg. Æn.

Se causam clamat, crimenq; caputq; malorum.

12.

Contrariwise the conscience of Innocence and good deserving, do mollifie and mitigate the calamities of worthy persons. Besides when the evil comes from without, cast upon us by others, a man hath whereof he may justly and freely complain, whereby his griefs may evaporate and not stifle the heart: for what comes from the injuries of men, we are wont to take indignation at, and meditate revenge; or else to implore, or expect, that the divine Nemesis, and Retribution, may take hold on the Authors of our hurt; or if it be inflicted from Fortune, yet their is left a kind of expostulation against the Divine Powers,

Atq;

Atque Deos atque Astra vocat Crudelia Mater.

Virg. Buc.

But on the other side, where the evil is derived from a man's own fault, there the grief strikes inward, and does more deeply wound and pierce the heart.

The Reprehension.

THE *Fallax* of this *Colour* is, first in respect of *Hope*, which is a great Antidote against *Evils*: for the reformation of a fault is many times in our own power, but the amendment of fortune is not. Wherefore in many of his Orations *Demosthenes* saith thus to the People of *Athens*: Demost.
orat. *That which having regard to the time past, is the worst Point and Circumstance of all the rest; that as to the time to come, is the best: what is that? Even this, that by your sloth, irresolution, and misgovernment, your affairs are grown to this declination and Decay; for had you used and ordered your means and forces to the best, and done your parts every way to the full, and notwithstanding your matters should have gone backward in this point as they do, there had been no hope left of recovery or reputation for hereafter; but since it hath been only by your own errors chiefly, you may have good assurance, that those errors amended, you may again recover the honour of your former state.* So *Epicætetus* speaking of the Degrees of the *Tranquillity* of mind, saith *the worst state of man is to accuse extern things; better then that, to accuse a mans self; and best of all to accuse neither.* Epicætet. Secondly this colour deceiveth in respect of that *pride* which is implanted in the minds of men, whereby they are with much ado induced to an acknowledgement of their own personal errors; but that they may shift off this acknowledgement, they can suffer with far greater patience such *evils*, as they have by their own oversights drawn upon themselves. For as we see it comes to pass that when a fault is committed, and it is not yet known who is the delinquent, men make much ado; grow hot and impatient above measure upon the matter: but after, if it appear to be done by a son; or by a wife, or by a near friend, then it is light made of, and presently all is quiet: so it is when any thing falls out ill, the blame whereof must needs lite upon our selves: And this is commonly seen to come to pass in women, who if they have done any thing unfortunately against their Parents or Friends consents, what ill soever betide them upon it, yet you shall see them seldom complain, but set a good face on it.

The Colour.

9 *The Degree of Privation seems greater than the Degree of Diminution; and again, the Degree of Inception, seems greater than the Degree of Increase.*

It is a position in the *Mathematicks*; that there is no proportion between somewhat and nothing: therefore the Degrees of *Nullity* and *Quiddity*, seems larger, than the Degrees of *Increase* and *Decrease*. As to a *Monoculus*, it

is more to loose one eye, than to a man that hath two eyes: so if one have divers children, it is more grief to him to loose the last surviving son, than all the rest. And therefore *Sibylla* when she had burnt her two first *Books*, doubled the price of the *Third*, because the loss of that had been *gradus Privationis*, and not *Diminutionis*.

Agell lib.
1 No. At.

The Reprehension.

Hesiod.

Arist. 1. de
Gen. &
Cor.

Orat. 1. in
Philip.

THe *Fallax* of this *Colour* is reprehended; first in those things, the use and service whereof resteth in sufficiency, or competency, that is in a determinate Quantity. As if a man be bound upon penalty to pay a sum of money at an appointed day, it would be more to him to want one *Noble*, than if, (supposing he could not tell where to be furnished with this one *Noble*) ten *Nobles* more were wanting. So in the decay of a man's estate, the degree of Debt which first breaks the stock, and casts him behind, seems a greater damage, than the last Degree, when he proves nothing worth. And hereof the common *Forms* are, *Sera in fundo Parsimonia*: and as good never a whit, as never the better, &c. Secondly this *Colour* deceives in respect of that Principle in Nature; *Corruptio unius, Generatio alterius*: so that the degree of ultimate Privation, doth many times less disadvantage, because it gives the cause, and sets the wits a-work to some new course. Which is the cause that *Demosthenes* often complains before the people of Athens. That the conditions imposed by *Philip*, and accepted by them, being neither profitable, nor honourable, were but aliments of their sloth and weakness, that it were much better they were taken away; for by this means their industries might be awaked to find out better remedies and stronger resolutions. We knew a Physician was wont to say pleasantly and yet sharply to delicate Dames, when they complained they were they could not tell how, but yet they could not endure to take any Physick; he would tell them, *your only way is to be sick indeed, for then you will be glad to take any medicine*. So further, this Degree of Privation, or of the highest period of want, serveth not only to stir up industry, but also to command patience. As for the second branch of this *Colour*, it depends upon the same reason, which is the degrees of *Quiddity* and *Nullity*; hence grew the common Place of extolling the beginning of every thing.

Dimidium facti qui bene capit habet.

This made the Astrologers so idle as to make a judgement upon a man's nature and Destiny, from the moment or point of constellation in his Nativity, or Conception.

The Reprehension.

THis *Colour* first deceives, because in many things, the first inceptions are nothing else than what *Epicurus* terms them in his Philosophy, *Tentamenta*, that is imperfect Offers, and Essays, which vanish and come to no substance without iteration and improvement. Wherefore in this case the second degree seems the worthier, and more potent than the First: as the Body-horse in the Cart that draws more than the foremost, And
it

it is a common saying, and not without good sence, *The second blow is that which makes the fray*: for the first, it may be, would have vanished without farther harm: and therefore *Prius Malo Principium dedit, sed posterius modum abstulit.* Secondly this colour deceives in respect of the dignity of Perseverance, which consists in the Progression, and not in the Aggression. For chance, or instinct of Nature, may cause inception; but settled affection and judgement makes the continuance. Thirdly, this Colour deceives in such things which have a natural course and inclination contrary to an Inception; so that the first Inception is perpetually evacuated, unless the force and faculty be continued. As in those common forms it is said *Non progredi est Regredi*; and *Qui non proficit deficit*, as in running against the hill; rowing against the stream; for if it be with the hill or with the stream, then the degree of Inception is more than all the rest. Again this Colour is not only extended to the Degree of Inception, which is from Power to Act, compar'd with the Degree, which is from Act to increment; but also is to be understood of the degree which is from Impotency to power, compared with the Degree which is from power to Act: for the Degree, from Impotency to Potency, seems greater, than from Power to Act.

The Colour.

10 *That which is referred to Truth, is more than that which is referred to opinion. The manner and Proof of that which pertains to Opinion, is this; that a man would never have done it, if he thought it should be sepulchred in secrecy and oblivion.*

So the Epicures say to the Stoicks, *Felicity placed in virtue*, that it is like the *Felicity* of a Player, who if he were left of his Auditors, and their applause, he would streight be out of heart and countenance; therefore they call virtue, out of a spiteful emulation, *Bonum Theatrale*. But it is otherwise of Riches, whereof the Poet saith

— *Populus me sibilat: at mihi plando*

Horat.

Likewise of Pleasure;

— *Grata sub imo
Gaudia Corde premens, vultu simulante pudorem.*

The Reprehension.

THE *Fallax* of this Colour is somewhat subtil; though the answer to the exemple alledged be ready; for neither is virtue chosen *propter Auram Popularem*; seeing that also is given in Precept, *That a man should above all things, and persons, revere himself*; so that a Good man is the same in solitude which he is in the Theatre; though perchance virtue will be more strong by glory and fame, as heat is increased by reflection: But this denyes the supposition, but doth not redargue the *Fallax*. The Reprehension is this, be it granted that virtue (especially such as is joyned with labour and conflict) would not be chosen but for her concomitants, *Fame* and *Opinion*; yet it follows not that an appetite and chief Motive to virtue, should not be real, and for it self;

self; for Fame may be only *causa impulsiva*, or *sine qua non*, and not a cause *Constituent* or *Efficient*. For example, if there were two Horses, whereof the one would perform with good speed, without the spur; but the other with the spur would far exceed the performance of the former; this latter (I suppose) will bear away the prize, and be judg'd to be the better Horse; and it will not move any man of sound judgement to say, *Tush the life of this Horse, is but in the spur*: for seeing the ordinary instrument of Horsemanship is the spur, and that it is no matter of impediment or burden; the Horse is not to be less accounted of, which will not do well without the spur: nor is that other which without the spur will do great matters, therefore to be reckoned the better, but the more delicate. So in like manner, *Glory and Honour are the Goads and spurs to virtue*; and though virtue would somewhat languish without them, yet since they be always at hand to attend virtue, even when they are not invited; there is no impeachment but that virtue may be desired for it self; and therefore the Position, *That the note of a thing chosen for Opinion and not for Truth, is this; That if a man thought that what he doth, should never come to light, he would never have done it*; is reprehended.

The Colour.

II *What is purchased by our own industry and virtue, is a greater Good; what is derived upon us, from the benefit of others, or from the indulgence of Fortune, is a lesser Good.*

The reasons are these? *First in respect of future Hope; because in the favour of others, or the good winds of fortune, we have no state or certainty; in our own endeavours or abilities we have.* So when they have procured us one good fortune, we have the same instruments ready for a new purchase; nay by custom and success, stronger than before. *Secondly because these Properties which we enjoy by the benefit of others, we are debtors to others for them; whereas what we derive from our selves, brings no burden with it, nor draws upon us an obligation to another.* Again, if the Divine Providence confer a favour upon us, it importunes a kind of Retribution towards the goodness of God, which stings ungracious and wicked men; whereas in that other kind of happiness, that of the Prophet commonly falls out, *They rejoyce and triumph; they sacrifice unto their net, and burn incense unto their drag.* *Thirdly because,* that which cometh unto us without our own abilities, yieldeth not that commendation and reputation. For Actions of great Felicity draw wonder, not praise; as Cicero said to Caesar. *Quæ miremur habemur, quæ laudemus expectamus.* *Fourthly.* because the purchases of our own industry are joynd commonly with labour and strife, which makes the fruition of our desires more pleasant, as saith Solomon, *Suavis cibus à venatu.*

Hab. 1.

Pro. M.
Marcel.

The Reprehension.

BUT there are four *Contre-Colours* which encline the case to the contrary Part, and may be as Reprehensions to the former Colours,
First

First because Felicity seems to be a seal and character of Divine favour; and accordingly begets both confidence and alacrity in our selves; and respect and authority from others: And this Felicity comprehends many casualties, whereunto the power and providence of a man cannot aspire. As when *Cæsar* encouraging the *Sayler*, said *Cæsarem portas & fortunam ejus*; but if he had said, *Cæsarem portas & virtutem ejus*, it had been a cold comfort against a tempest. Secondly because that such things as proceed from virtue and industry, are imitable, and feasible by others to be practised; whereas Felicity is a thing inimitable, and a Prerogative of some few singular persons. Wherefore we generally see, that things of Nature are prefer'd before things of Art, because they be inimitable: for what is imitable is in effect prostitute and common. Thirdly the Revenues of Felicity, seem to be no purchase of our own, but a Donative from others: but what is acquired by our own proper virtue is, as it were, bought at a price. Whereupon *Plutarch* saith elegantly of the Arts of *Timoleon*, a man of all men most fortunate, compared with the Acts of *Agestilaus* and *Epaminondas* who lived in the same Age, That they were like *Homer's* verses, which as they excell'd in other points, so they seem'd to have an easie native slide in them and to be conducted by a happy Genius. Fourthly because what falls out beyond hope and expectation, insinuates it self more sweetly, and with greater delight, into the minds of men; but this cannot be incident to those things, which proceed from our own care and compass.

Suet. in Jul.

In Timol.

The Colour.

12 "What consists of many and divided parts, is greater than that which
 "consists of few Parts, and is more entire; for all things considered by
 "parts seem greater: wherefore both plurality of parts hath a shew of
 "Magnitude; and the same Plurality works more strongly, if it be pre-
 "sented unto us without order; for it induceth a resemblance of Infinity,
 "and hinders Comprehension:

This Colour seems a *Fallax*, at first sight very palpable: for not the Plurality of Parts alone, but the Majority, may make the total Greater; yet nevertheless the Colour many times carries the imagination away; yea, it deceives sense. For it seems to the eye, a shorter distance of way, if it be all dead and continued, so as nothing intercurr which may break the sight; than in such a coast or quarter, where there are Trees and Buildings, and other marks, which may measure and Divide the space. So when a great Monied-man hath divided and distributed his chests and bags into severall and distinct rooms, he seemeth to himself richer than he was. Therefore a way to Amplify any thing, is to break it into many Parts, and to handle every part severally by it self. And this again will more fill the imagination, if it be done promiscuously and without order; for confusion raiseth an opinion of multitude; so what are presented and propounded in order, both seem to be more finite, and demonstrate that nothing is left out, but all is there: whereas on the contrary, whatsoever things are represented confusedly, are not only thought to be more numerous in themselves; but they leave a suspicion that more might be said than is expressed.

The Reprehension.

THE Fallax of this Colour is. First when a man doth over-conceive, or prejudicate of the greatness of any thing, comprehending it beyond the true limits of Magnitude; for then the breaking of it will make it seem less, and rectifie that false opinion, and present the object in its native verity, and not with amplification. Wherefore if a man be in sickness or in pain, the time will seem longer to him without a Clock or an Hour-glass, than if it were measured with them: for if the wearysomeness, and vexation of a disease, make the time seem longer than in truth it is; yet the computation of time reforms that mistake, and makes it shorter than that erroneous opinion conceived it to be. So in a dead Plain (whereof even now we gave a contrary instance) it sometimes falls out; for though at first the eye preconceiv'd the way shorter, because it was undivided, yet if upon this supposition, an opinion possess the imagination of a far shorter space of ground than it proves to be, the frustrating of that vain conceit, makes it seem longer than the truth. Therefore if any man desire to humour and second the false opinion of another, touching the greatness of any thing, let him beware of distributions, and breaking it in several considerations, but let him out of hand extol the matter entire, and in the gross. Secondly this Colour deceives when the Distribution is distracted or scattered, or is not presented entire, or doth not at once object it self to the sight. Therefore if flowers in a Garden be divided into several beds, they will shew more than if they were all growing in one bed; so the Beds be within a plot that they be the object of view at once; otherwise, union is of more force in this case than scattered distribution. Therefore their Revenues seem greater, whose Lands and Livings lie together in one shire; for if they were dispersed, they would not fall so easily within notice and comprehension. Thirdly this Colour deceives in respect of the dignity of unity above multitude; for all composition is a sure mark of deficiency, in particularities severally considered, which thus pieces out one thing with the addition of another.

Et quæ non prosunt singula, multa juvant.

Luk. 10.

Æsop.

And therefore Mary had chosen the better part; Martha, Martha, attendis ad plurima, unum sufficit. Hereupon Æsop, framed the fable of the Fox and the Cat. The Fox bragged what a number of shifts and devices he had to get from the Hounds; the Cat said she had but one only way to trust to, which was this; she had a poor slender faculty in climbing up a tree: which yet in proof was a surer guard then all Vulpone's policies and stratagems: whereof the proverb grew, *multa novit Vulpes, sed Felis unum magnum*, the Fox knows many practices, but the Cat one special; one that will help at a dead lift. And in the Moral of this Fable it comes likewise to pass, that a potent and faithful Friend, is a surer Card at a pinch than all the Plots and Policies of a man's own wit.

And these shall suffice for example: we have an infinite number more of Colours, of this nature, which we collected in our youth; but without

without their *Illustrations* and *Reprehensions*, which at this time we have now leisure to perfect and digest; wherefore we thought it incongruous to expose those *Colours* naked, without their *Illustrations*; seeing these other come abroad attired. Yet thus much in the mean time we admonish, that this branch of knowledge, in our judgement, whatsoever it may seem, is of no contemptible consequence, but a matter of high price and use, as that which participates both of *Primitive*, *Philosophy*, of *Policy*, and of *Rhetorick*. Thus much of popular marks, or of the *Colours of Good and Evil in appearance*, as well *simple as comparative*.

III. A second collection, which appertains to a ready *provision*, or *preparatory store*, is that which *Cicero* intimates (as we have noted before in *Logick*) where he gives it in Precept, that we have *Common-places* in ready preparation argued and handled *Pro* and *Contra*; such as are, *For the words and letters of Law*, *for the sense and mind of Law*, and the like. And we extend this Precept to other things also; as that it may be applied, not only to *Judicial Forms*; but to *Deliberative* and *Demonstrative* also. Generally this is it we would have done; namely, that we have all *places*, whereof there is more frequent use (*whether we respect Probations and Confutations, or Perswasions and Disswasions, or Praises and Vituperations*;) studied and meditated beforehand, and the same extoll'd and depressed by the highest strains of Wit and Invention; and perversely wrested, as it were, of purpose utterly beyond Truth. And in our opinion the manner of this *Collection*, as well for use as for brevity, would be the best, if such common-places, and seeds of several Arguments were abridg'd and cast up into some brief and acute sentences, as into Skains or Bottoms of Thread to be drawn out, and unwinded into larger Discourses as occasion should be presented. A *Collection in this nature* we find in *Seneca*, but in suppositions only, or Cases. Of this sort (in regard we have many ready prepared) we thought good to set down some of them for example: These we call *Antitheta Rerum*.

ANTI-
THETA
RERUM
Cicero.

Sen. Con-
tra.

Examples of the *Antitheta*.

NOBILITY. I.

Pro.

They whose vertue is altogether deriv'd from the stock; these not only have not a will, but want a power to be wicked.

Nobility is a Garland of Bays, wherewith time Crowns men.

We reverence Antiquity even in dead Monuments, how much more in living.

Contra.

Nobility seldom springs from Vertue; Vertue more seldom from Nobility.

Nobles by birth more often use the intercession of their Ancestors for Pardon, than their suffrage for Honours.

The industry of new rising men is oftentimes such, as Nobles compar'd with them are but Statues.

If you regard not the Honour of an ancient House: Then what difference will there be between the Race of Men, and the Race of Beasts? Nobles by blood, look too often back in the course; which is the quality of an ill Racer.

Nobility removes Vertue from Envy; recommends it to Grace and Favour.

BEAUTY. II.

Pro:

Deformed persons commonly have their revenge of Nature.

Vertue is nothing else but inward Beauty; and Beauty nothing else but an outward Vertue.

Deformed persons seek to rescue themselves from scorn, by malice and boldness.

Beauty makes Vertues shine, vices blush.

Contra.

Vertue is like a rich Stone, best plain set.

What a fair vestment is to a deformed Body, the same is a comely Body to a deformed Mind.

They usually are of no great parts; whom Beauty commendeth or moveth.

YOUTH. III.

Pro.

Our first cogitations, and the counsels of Youth stream more divinely.

Old men are more wise for themselves, than they are for others and the Repub.

If it could be made visible, Old age doth more deform the mind than the body.

Old men fear all things save the Gods.

Contra.

Youth is the field of Repentance. There is in Youth an inbred disesteem of the Authority of Age, that every one may grow wise at his own peril.

Those Counsels to which Time was not call'd, Time will not ratifie.

In old men Venus is changed into the Graces.

HEALTH. IV.

Pro.

The regard of Health makes the Mind humble, and obsequious to the Body.

A sound Body is the Souls Host, but a sickly her Jaylor.

Nothing so promotes the summ of Business, as a prosperous state of Body; but on the contrary, a sickly constitution makes too many Holy-days.

Contra.

Often to recover health, is often to grow young again.

Indisposition of Health is a common excuse, hither we fly even when we are well.

Health unites the Soul and the Body in too strict a league.

The Couch hath govern'd mighty Empires; and Litter mighty Armies

WIFE and CHILDREN:

Pro.

Charity to the Common-wealth, begins at a private Family.

Wife and Children are a kind of Discipline of Humanity; but unmarried men are cruel and hard-hearted.

Single life and a Childless state, are good for nothing but for flight.

He that procreates no Children, sacrificeth to Death.

They that are happy in all other things, are commonly unfortunate in their Children: lest being men they should approach too near to a condition Divine.

Contra.

He that hath Wife and Children, hath given Hostages to Fortune.

Generation and Issue are Humane Acts; Creation and its Works are Acts Divine.

Issue is the Eternity of Beasts, Fame, Merit, and wholesome Precepts, the Eternity of Men.

Oeconomical respects many times supplant Political Duties.

To some Natures the Fortune of Priamus is acceptable, who surviv'd his whole Posterity.

RICHES. VI.

Pro.

They despise Riches, that despair of them.

An enmity conceiv'd against Riches, hath extoiled Vertue to a Deity.

Whilst Philosophers call in doubt whether all things are to be referr'd to Vertue or Pleasure; survey the instruments of them both.

Vertue, by means of Riches, is converted into a common good.

All other kinds of Good have a provincial command, only Riches a general.

Contra.

Of great Riches, there is either a custody, or a dispensation, or a fame; but no solid use.

Do you not see what feigned prizes are set upon little Stones, and such kind of Rarities, that there may be some use made of great Riches?

Many, whilst they have entertain'd an opinion that all things might be bought with their money; have in this conceit, first sold themselves.

I cannot call Riches better than the Baggage of Vertue; for they are both necessary to Vertue, and yet cumbersome, hindring the March.

Riches are a good Hand-maid, but the worst Mistress.

HONOURS. VII.

Pro.

Honours are not suffrages of Tyrants, but of Divine Providence.

Honours make both Vertues and Vices conspicuous; therefore those

Contra.

Whilst we seek Honours, we loose liberty.

Honours commonly give men a power over those things, wherein they

they excite, these they repress.

No man can tell what proficience he hath made in the Race of Vertue, unless Honours afford him an open Field.

The motion of Vertue as of other things, is violent to its place, calm in its place; and the place of Vertue is Honour.

the best condition is, not to will; the next not to can.

The stairs to Honours are steep, the standing slippery, the regress a downfal.

They that are in great place had need to borrow other mens opinions, to think themselves happy.

EMPIRE. VIII.

Pro.

It is a great blessing to enjoy Happiness; but to have the power to confer it on others, is far greater.

Kings are rather like stars than men; for they have a powerful influx upon all men, and upon times themselves.

To resist God's vicegerents, is not only the guilt of Treason, but a kind of Theomachie.

Contra.

What a miserable state is it, to have a few things to desire, infinite things to fear!

Princes are like heavenly bodies which have much veneration, but no rest.

None of Humane condition is admitted to the Banquet of the Gods, but to his reproach.

PRAISE, REPUTATION. IX.

Pro.

Praises are the reflexed Beams of Vertue.

That praise is an Honour which comes from voices freely conferr'd.

Many States confer Honours; but Praises are every where the Attributes of Liberty.

The voice of the people hath some divineness in it; else how should so many men agree to be of one mind?

You need not wonder if the commonalty speak more truly than the Nobility; for they speak more safely.

Pro.

Fame is a better Nurse than a Judge.

What hath a good man to do with the dull approbation of the vulgar?

Fame like a River bears up things light and swoln; drowns things weighty and solid.

The lowest vertues draw praise from the common people; the middle vertues work in them Astonishment or Admiration; but of the highest Vertues they have no sence or perceiving at all.

Praise proceeds more out of a bravery than out of merit; and happens rather to vain and windy persons, than to persons substantial and solid.

NATURE. X.

Pro.

The Progress of Custom is Arithmetical; of Nature Geometrical.

Contra.

Mens thoughts are according to Nature; their words according to
As

As Laws are to Custom in Civil States, so is Nature to Custom in every particular person.

Custom against Nature is a kind of Tyranny, and is quickly and upon light occasion oppress'd.

Precept; but their deeds according to custom.

Nature is a kind of Pedant; Custom a Magistrate.

FORTUNE. XI.

Pro.

Ouvert and apparent vertues bring forth praise; secret and hidden vertues bring forth fortune.

Vertues of duty bring forth praise; vertues of ability bring forth fortune.

The way of Fortune is like the milken way in the skie; which is a meeting or knot of certain small obscure vertues without a name.

Fortune is to be honour'd and respected, and it be but for her daughters confidence and reputation.

Contra.

The folly of one man, is the fortune of another.

In Fortune this I may chiefly commend, that being she makes no election, she gives no protection.

Men of place and quality while they decline the envy of their own vertues; have been found among the worshippers of Fortune.

LIFE. XII.

Pro.

It is a foolish and preposterous affection, to love the Accessories of life, more than life it self.

A full course is better than a short; a fair advantage to all things, yea even to vertue.

Without a good spacious compass of life, we can neither fully perfect, nor learn, nor repent.

Contra.

The Philosophers, whilst they raise so great preparations against Death, have made it but appear more terrible.

Men fear Death because they know it not; as Children fear the dark.

You can find no passion in the mind of man so weak; which if it be but a little prest, masters not the fear of death.

To be willing to die, not only a valiant man, or a miserable man may, or a wise; but even a fastidious man, and a coward may do as much.

SUPERSTITION. XIII.

Pro.

They that err out of a well meant zeal, may not be approved, but yet may be beloved.

Mediocrities are due to Moral vertues; extremities to divine.

A superstitious man is a religious Formalist.

I should sooner believe all the Fabulous wonders of any Religion, than that this universal Frame was built without a Deity.

Contra.

As it adds deformity unto an Ape, to be so like a man; so the similitude of superstition to Religion, makes it more deform'd.

Look how odious Affectation is in matters Civil; so hateful is superstition, in matters Divine.

It were better to have no opinion of God at all, than such an opinion as is reproachful unto him.

It is not the School of Epicurus, but the Porch of the Stoicks that hath perturbed ancient States.

It cannot come into the mind of man to be a mere Atheist in Opinion; but your great Hypocrites are the true Atheists, who are ever handling holy things, but never revere them.

PRIDE. XIV.

Pro.

Pride is even with vices incompatible: And as poyson is expelled by poyson, so many vices are by pride.

A soft nature becomes guilty of the crimes of others; but a proud spirit only of his own.

Pride if it ascend from contempt of others to a contempt of itself, at last is chang'd into Philosophy.

Contra.

Pride is the insinuating Ivice to Vertues, and all good Qualities.

All other vices are only contrary to vertues, pride alone is contagious.

Pride wants the best condition of vice, that is, concealment.

A proud man while he despiseth others, prejudiceth himself.

INGRATITUDE. XV.

Pro.

The guilt of ingratitude is nothing else but a too precise consideration and inquisition into the cause of a benefit conferr'd.

Whilst we endeavour to be grateful to others, we neither perform

Contra.

The crime of Ingratitude is not to be repressed by punishments, but to referred over to the Furies.

The obligations of benefits are more strict than of Duties, where-justice

justice to others, nor reserve liberty to our selves.

Where the valuation of a Benefit is uncertain, there the less thank is due.

fore he that is unthankfull is unjust, and any thing.

Such is man's condition; no man is born to so high a fortune, but that he is a debtor to the retribution both of Private thanks, and personal revenge.

ENVY. XVI.

Pro.

It is natural for a man to hate the reproach of his Fortune.

Envy in a state is a wholesome Ostracism.

Contra.

Envy never makes Holyday.

Nothing but death reconciles Envy to virtue.

Envy doth put vertue to it, as Juno did Hercules.

INCONTINENCE. XVII.

Pro.

Chastity may thank Jealousie that she is become a virtue.

He had need be endued with much Gravity, that makes the sports of Venus any matter of Earnest.

Why do you place either a spare diet, or a shew of Honesty, or the Daughter of Pride, amongst the virtues?

Of loves, as of wild fowl, there is no property; but the right is past over with the possession.

Contra.

Incontinence is one of Circes her worst transformations.

An unchast liver hath utterly lost a reverence to himself, which is the bridle of all vice.

They that with Paris, make beauty their wish, lose, as he did, Wisdom and Honour.

Alexander fell upon no popular truth, when he said, that sleep and lust were the earnest's of Death.

CRUELTY. XVIII.

Pro.

No virtue is so often guilty as clemency.

Cruelty if it proceed from revenge, it is justice; if from Peril it is wisdom.

He that shews mercy to his enemy, denies it to himself.

Phlebotomy is not more necessary in the Body Natural, than it is in the body Politick.

Contra.

He that delights in blood, is either a wild beast or a Fury.

Cruelty to a Good man, seems to be but a Fable, and some Tragical fiction.

VAIN-GLORY. XIX.

Pro.

He that seeks his own praise, withal seeks the profit of others.

He that is so reserv'd, as to regard nothing that is forreign; it may be suspected, that he will account publick affairs, forreign impertinencies.

Such Dispositions as have a commixture of Levity in them, more easily undertake a publick charge.

Contra.

Vain-glorious persons are always factious, lyers, inconstant, overdoing.

Thraso is Gnatho's prey.

It is a shame for a Lover to make suit to the hand-maid; but Praise is vertues hand-maid.

JUSTICE. XX.

Pro.

Kingdoms and States are only the Appendices of Justice: for if Justice otherwise could be executed, there would be no need of them.

It is the effect of Justice, that man is to man a God, and not a Wolf.

Though Justice cannot extirpate Vice; yet it represseth it from doing hurt.

Contra.

If this be to be just, not to do to another what you would not have done to your self; then is mercy Justice.

If we must give every one his due, then surely pardon to Humanity.

What tell you me of equity when to a wise man all things are unequal?

Do but consider what the condition of the guilty was in the Roman State; and then say Justice is not for the Republick.

The common Justice of States is as a Philosopher in Court; that is, it makes only for a reverential respect of such as bear Rule.

FORTITUDE. XXI.

Pro.

Nothing but fear is terrible. There is nothing solid in pleasure, nor assur'd in vertue, where fear disquiets.

Contra.

That's a goodly vertue to be willing to dye, so you may be sure to kill.

He that confronts dangers with open eyes, that he may receive the charge; marketh how to avoid the same.

All other vertues, free us from the Dominion of Vice; only Fortitude from the Dominion of Fortune.

That's a goodly vertue sure, which even drunkenness may induce.

He that is prodigal of his own life, will not spare the life of another.

Fortitude is a vertue of the Iron Age.

TEMPERANCE. XXII.

Pro.

To abstain and to sustain, are vertues proceeding commonly from the same habit.

Uniformities, concords, and measures of motions, are things celestial, and the characters of Eternity.

Temperance as wholesome colds, concentrate and strengthen the forces of the Mind.

Too exquisite and wandring senses, had need of Narcoticks; and so likewise wandring affecti-
ons.

Contra.

I like not these negative vertues; for they argue Innocence not Merit.

That mind languisheth which is not sometimes spirited by excess.

I like those vertues which induce the vivacity of Action, and not the dulness of Passion.

When you set down the equal temper of the mind, you set down but few; nam pauperis est numerare pecus.

These Stoicisms (not to use that so you may not desire; not to desire that so you may not fear) are the resolutions of pusillanimous, and distrustful natures.

CONSTANCY. XXIII.

Pro.

Constancy is the foundation of vertue.

He is a miserable man that hath no perception of his future state, what it shall or may be.

Seeing man's judgement is so weak, as that he cannot be constant to things; let him at least be true to himself, and to his own designs.

Constancy gives reputation even to vice.

If to the Inconstancy of Fortune we add also the inconstancy of mind, in what mazes of darkness do we live.

Contra.

Constancy like a sullen-felf-will'd Portereß, drives away many fruitful informations.

There is good reason that Constancy should patiently endure crosses, for commonly she causeth them.

The shortest folly is the best.

Fortune is like Proteus, if you persist, she returns to her true shape.

MAGNANIMITY. XXIV.

Pro.

When once the mind hath propounded to it self honourable ends; then not only vertues, but even the Divine powers are ready to second.

Vertues springing from Habit or Precept, are vulgar; but from the end heroical.

Contra.

Magnanimity is a vertue Poetical.

KNOWLEDGE, CONTEMPLATION. XXV.

Pro.

That delight only is according to Nature, whereof there is no satiety.

The sweetest prospect is that, which looks into the errors of others, in the vale below.

How pleasing and profitable a thing is it, to have the orbs of the mind concentrick, with the orbs of the World.

All depraved affections are false valuations; but goodness and truth are ever the same.

Contra.

A contemplative life is a specious sloth.

To think well is little better than to dream well.

The divine providence regards the world; thou thy country.

A right Politick procreates Contemplations.

LEARNING. XXVI.

Pro.

Reading is a converse with the wise; Action, for the most part, a commerce with fools.

Those Sciences are not to be reputed altogether unprofitable, that are of no use; if they sharpen the wits, and marshal our conceptions.

Contra.

To be wise from Precept and from Experience, are two contrary habits; so as he that is accustomed to the one, is inept for the other.

There is many times a vain use of Art, lest there should be no use.

This commonly is the humour of all Scholars, that they are wont to acknowledge all they know; but not to learn what they know not.

PROMPTITUDE. XXVII.

Pro.

That is not seasonable wisdom, which is not quick and nimble.

He that quickly errs, quickly reforms his error.

He that is wise upon deliberation, and not upon present occasion; performs no great matter.

Contra.

That wisdom is not far fetcht, nor deeply grounded, which is ready at hand.

Wisdom is as a Vestment, that is lightest, which is readiest.

Age doth not ripen their wisdom, whose counsels deliberation doth not ripen.

What is suddenly invented, suddenly vanisheth; soon ripe soon rotten.

Silence in matters of Secrecy. XXVIII.

Pro.

From a silent man, nothing is conceal'd; for all is there safely laid up.

He that easily talks what he knows, will also talk what he knows not.

Mysteries are due to secrecies.

Contra.

Alteration of Customs placeth the mind in the dark; and makes men go invisible.

Secrecy is the vertue of a Confessor.

From a silent man all things are conceal'd, because all is repaid with silence.

A close man is next to an unknown man.

FACILITY. XXIX.

Pro.

I like the man that is pliant to another's inclination, but yet reserves his judgement from flattery.

He that is flexible comes nearest to the nature of Gold.

Contra.

Facility is a weak privation of judgement.

The good offices of facile natures seem debts; their denials, injuries.

He owes the thanks to himself, that obtains any thing of a facile-natur'd man.

All difficulties press upon a too accessible and yielding nature; for he engages himself in all.

Facile natures seldom come off with credit.

POPULARITY. XXX.

Pro.

The same things commonly please wise men, but it is also a point of wisdom; to humour the changeable disposition of fools.

To honour the people is to be honoured.

Men in place usually stand in awe, not of one man, but the multitude.

Contra.

He whose nature rightly sorts with fools; may himself be suspected.

He that hath the Art to please the people; commonly hath the power to raise the people.

No terms of moderation takes place with the vulgar.

To fawn on the people, is the lowest degree of Flattery.

LOQUACITY. XXXI.

Pro.

Silence argues a man to be jealous, either of others, or of himself.

Restraint of liberty in what kind soever is an unhappy case, but the worst of all is that of silence.

Silence is the vertue of fools; where he said truly to a silent man, If you be wise you are a Fool; if you be a Fool you are wise.

Silence like night is fit for Treacheries.

Cogitations are like waters, most wholesome in the running stream.

Silence is a kind of solitude.

He that is silent prostitutes himself to censure.

Silence neither dischargeth it self of Evil thoughts, nor contributes any good.

Contra.

Silence adds grace and authority to a man's words.

Silence like a kindly sleep refresheth wisdom, and settles the judgement.

Silence is the Fermentation of our thoughts.

Silence is the stile of wisdom.

Silence is a candidate for Truth.

DISSIMULATION. XXXII.

Pro.

Dissimulation is a compendious wisdom.

We are not tied to say the same, but to intend the same.

Nakedness even in the Mind is uncomely.

Dissimulation is both a Grace and a Guard.

Dissimulation is the fence of counsels.

Some through their too apert fair dealing become a prey.

He that carries all things with an open frankness deceives, as he that somewhat dissembles: for many either do not comprehend him, or do not believe him.

Open dealing is nothing else but a weakness of mind.

Contra.

When we cannot think according to the verity of things, yet at least let us speak according as we think.

Whose shallow capacities comprehend not the Arts of State; in them, a habit of dissimulation goes for wisdom.

He that Dissembles, deprives himself of one of the most principal instruments for Action, which is belief.

Dissimulation invites Dissimulation.

A dissembler is not exempt from bondage.

BOLDNESS XXXIII.

Pro.

A shamefac'd suitor teaches the way how to be denied.

What Action is to an Orator, the same is boldness to a Politick; the first, the second, the third vertue.

I love him that confesseth his modesty, but I cannot endure him that accuseth it.

A confidence in carriage soonest unites affections.

I like a reserved countenance, and an open speech.

Contra.

Boldness is the Verger to folly.

Impudence is good for nothing but for Imposture.

Confidence is the fool's Empress, and the wise man's buffoon.

Boldness is a kind of Dulness of sense, together with a perverseness of will.

Ceremonies, Punctoes, Affectation. XXXIV.

Pro.

A comely moderation of Countenance and Gesture, is the true seasoning vertue.

Contra.

What can be a more deformed spectacle, than to transfer the sense into our common course of life?

If we observe the vulgar in the use of Words, why not in Habit and Gesture?

He that keeps not a decorum in smaller matters, and in his daily customs, though he be a great man, yet set it down for truth; that such a personage is wise, but at certain seasons.

Vertue and wisdom, without all points of respect and complement, are like forreign languages, they are not understood by the common people.

He that apprehends not the meaning of the common people, neither by a congruous application, nor yet by observation, is of all men most senseless.

Puntoes and ceremonies are the translation of vertue into a mother-tongue.

Fair ingenious behaviour wins grace and favour; but affectation and art procures hatred.

Better a painted face and crisped hair; than painted and crisped manners.

He cannot comprehend great matters, who breaks his mind to small observations.

Affectation is the shining Putrefaction of ingenuity.

JESTS. XXXV.

Pro.

A conceit is the altar of an O-rator.

He that mingles modest mirth in all his commerce with others, reserves a freedom of mind.

It is a matter more politick, than a man would think, smoothly to pass from jest to earnest, and from earnest to jest.

A witty conceit is oftentimes a convoy of a Truth, which otherwise could not so handsomely have been ferried over.

Contra.

What man despiseth not those that hunt after these deformities and concinnities?

To put off the importance of business with a jest, is a base slight of wit.

Then judge of a jest, when you have done laughing.

Merrily conceited men, seldom penetrate farther than the superficies of things, which is the point where the jest lies.

To put a jest, as a matter of moment upon serious affairs, is a childish Levity.

LOVE. XXXVI.

Pro.

Do you not see how all men seek themselves, but a lover only finds himself.

Contra.

The stage is much beholding to love; the life of man nothing.

There is no better government of the mind, than from the command of some powerful affection.

He that is wise, let him pursue some desire or other; for he that doth not affect some one thing in chief, unto him all things are distasteful and tedious.

Why should not that which is one, rest in unity?

There is nothing hath so many names as Love; for it is a thing either so foolish, that it knows not it self, or so base that it must needs disguise it self under a counterfeit habit.

I like not such natures as are only intent upon one thing.

Love is a poor narrow contemplation.

FRIENDSHIP. XXXVII.

Pro.

Friendship accomplisheth the same things that Fortitude doth, but more sweetly.

Friendship is a pleasant sauce to any temporal happiness.

The worst solitude is to be destitute of sincere friendship.

It is a just punishment for false-hearted dispositions, to be deprived of friendship.

Contra.

Who contract's strict leagues of Amity, draws upon himself new engagements.

It is a note of a weak spirit to divide fortune.

FLATTERY. XXXVIII.

Pro.

Flattery proceeds more out of custom than out of Malice.

It was ever a form of civility due to Great Persons, by praising them to instruct them.

Contra.

Flattery is the stile of Servants.

Flattery is the cement of vice.

Flattery is that kind of fowling, which deceives Birds, by resemblance of voice.

The deformity of flattery is Comical, but the damage Tragical.

To give wholesome counsel, is a task most difficult.

REVENGE. XXXIX.

Pro.

Private Revenge is a kind of wild Justice.

He that returns wrong for wrong, violates the Law, not the Person.

Contra.

He that does a wrong is the beginner of a quarrel, but he that retaliates, takes away all means of ending it.

Revenge by how much the more natural, by so much the more to be repressed.

The fear of Private revenge is a profitable restraint, for laws are too often asleep.

He that is inclinable to retribute a wrong, is behind-hand perchance in time, but not in will.

INNOVATION. XL:

Pro.

Every medicine is an innovation.

He that will not apply new remedies, must expect new diseases.

Time is the greatest innovator; why then may we not imitate time.

Ancient presidents are inconformable, recent, corrupt, and degenerate.

Let simple and contentious persons, square their actions, according to examples.

As those that first bring honour into their Family, are commonly more worthy than most that succeed: So the Innovation of things for the most part excells those things which are done out of Imitation.

A forward retention of Customs, is as turbulent a thing as Innovation.

Seeing that things of their own course alter to the worse, if they be not by counsel altered to the better, what shall be the end of Evil.

The servants of custom, are the scorn of Time.

Contra.

New Births are deformed things.

No author is accepted, until time have authoriz'd him.

All novelty is with injury, for it defaceth the present state of things.

Those things which custom hath confirmed, if they be not profitable, yet they are conformable and piece well together.

What Novator follows the example of time, which insinuates innovations so quietly, as is scarce perceptible to sense.

Whatsoever comes unlooked for, is the less acceptable to him whom it helps; and the more troublesome to him whom it hurts.

DELAY. XLI.

Pro.

Fortune selleth many things to the hasty; which she gives to the slow and deliberate.

Whilst we make too much hast to surprize the beginnings and onsets of things, we clasp shadows.

Whilst things are at a doubtful stand, we must weigh them; when they incline we may fall awork.

It is good to commit the beginning of Actions to Argus, with his hundred eyes; the ends to Briareus, with his hundred hands.

Contra.

Occasion turns the handle of the Bottle first, to be received; and after the belly.

Occasion, like Sybilla, diminisheth the commodity, but enhanceth the Price.

Celerity is the helmet of Pluto.

Those things which are seasonably undertaken, are performed with judgement; but what are put off too long, are compass'd with trouble and by ambages.

PREPARATION. XLII.

Pro.

He that attempts a great matter with small means; fancies to himself the advantage of opportunity, that he may not despair.

With slender provision we buy wit not fortune.

Contra.

The first occasion of action, is the best point of preparation.

Let no man think to fetter fortune, with the chains of his preparation.

The alteration of preparation, and action, are politick Arts; but the separation of them is a vaporous conceit, and unprosperous.

Great preparation is a prodigal both of time and business.

To Encounter first Assaults. XLIII.

Pro.

More dangers deceive us by fraud, than overcome us by force.

It is less trouble to meet danger by early remedies, than to watch and ward the approaches and progress thereof.

A danger is no more light, if it once seem light.

Contra.

He teacheth danger to come on, who over-early addresseth himself against danger; and fixeth it by application of a remedy.

In the redress of dangers, lighter dangers fall off of themselves.

It is better to deal with a few authentick and approv'd remedies; than to venture upon a world of un-experienc'd particular receipts.

VIOLENT COUNSELS. XLIV.

Pro.

Those that affect a mild and gentle kind of Prudence; to them the augmentation of an evil is a wholesome remedy.

That necessity which resolves upon desperate courses; commonly goes through with them.

Contra.

Every violent remedy is pregnant of a new evil.

No man gives violent advice, but out of fury or fear.

SUSPICION. XLV.

Pro.

Diffidence is the nerves of wisdom; but suspicion a remedy for the joynts.

That sincerity is justly suspected, which suspicion weakens or overthrows.

Suspicion defeats an inconstant integrity; but confirms a strong and resolute.

Contra.

Suspition breaks the bond of faith.

The distemper of suspicion, is a kind of Civil Madness.

The words of Law. XLVI.

Pro.

It is no exposition, but a divination, which departs from the letter.

When there is made a departure from the Letter of Law; the Judge, of an Interpreter, becomes a Law-giver.

Contra.

Out of all the words in the generality, such a sence must be extracted, as may expound the mind of every particular passage.

The worst tyranny, is Law upon the rack.

For Witnesses against Arguments. XLVII.

Pro.

He that relies upon Arguments, defines according to the pleader, not according to the cause.

He that gives credit rather to Arguments than Witness, must with-all trust more to Wit than sense.

It were a safe way to believe Arguments of Reason, if men were not guilty of Absurdities against Reason.

Arguments brought against Testimonies accomplish thus much; that the case seems strange, but not that it seems true.

Contra:

If proofs by witness, are to be prefer'd before Proofs from Reason. then there needs no more ado, but that the Judge be not deaf.

Arguments are an Antidote against the Poyson of Testimonies.

Those kind of Proofs are most safely believed, which do most seldom lye.

Now these *Antitheta* which we have propounded, are not perchance so much worth; but being they were prepared and collected by us long ago, we were loath the diligence of our youth should perish: specially seeing they are (if one exactly consider them) *Seeds, and not Flowers*. But herein they do plainly breath a youthly heat, in that they are so plentiful in the *Moral or Demonstrative* kind, so thin and sparing in the *Deliberative and Judicial*.

IV. A third Collection which pertains to *preparatory store or Provision*, and is *Deficient*, is that which we think fit to call *Formule Minores, Lesser Forms or Stiles of Speech*. And these are (as it were) the Portals, Postern-doors, outer-Rooms, back-Rooms, Passages of Speech, and the like; which indifferently may serve for all Subjects. Such are *Prefaces, Conclusions, Digressions, Transitions, Promises, Excusations*, and many of like nature. For as in *Building* there is great pleasure and use in the well-casting of the *Frontispieces, Stair-cases, Doors, Windows, Entries, Passages*, and the like: so in speech if the accessory conveyances and interposures be decently and skilfully contrived and placed, they are of special ornament and effect, to the whole structure of the speech. Of these *Formule*, we will propose an example or two, and stay no longer upon them. For although they be Matters of no small use, yet because we add nothing here of our own, but describe the naked *Forms* only, out of *Demosthenes* or *Cicero*, or some other select Author, they may seem a more trivial and common observation, than that we should waste much time therein.

*
FORMULÆ
LÆ MI-
NORES.

Examples of Minor Forms.

A Conclusion of a Speech Deliberative.

“ So we may both redeem the fault which is passed, and with the same diligence provide against future inconveniences.

The Corollary of an accurate Partition.

“ That every one may understand that I seek not to balk any thing by silence, or to cloud any thing by words.

A Transition with a Caveat.

But let us so pass by these, that reflecting upon them, and keeping them within view, we may leave them.

A preoccupation against an inveterate opinion.

I shall so open the matter as you may understand in the whole manage of the business, what the case it self hath brought forth; what error hath fastned upon it; what envy hath rais'd. And let these suffice for example, wherewith (annexing two *Rhetorical Appendices*) which respect the *Promptuary Part* we conclude.

CHAP. IV.

I. *Two General Appendices of the Art of Delivery, Art Critical. And Pedantical.*

There remains two *Appendices* in general, touching the *Tradition of Knowledge*; the one *Critical*; the other *Pedantical*. For as the principal part of *Tradition of Knowledge* consisteth in writing of Books; so the relative part thereof consists in reading of Books: but reading is governed and directed, either by the help of Preceptors and Tutors; or perfected by every man's particular and proper endeavour and industry: and to this purpose conduce those two knowledges, whereof we have spoken. To the *Critical* part appertains; first, an immaculate correction and amended edition of approved Authors: Whereby both the honour of Authors themselves is vindicated, and a light given to the studious Readers. Wherein nevertheless, the rash diligence of some Writers hath done great prejudice to Studies: For it is the manner of many Criticks, when they fall upon a passage which they do not understand, presently to presume a fault in the Copy. As in that place in *Tacitus*, when a certain Colony in the open Senate, claimed the privilege of an *Asylum*, *Tacitus* reports that the reasons they prefer'd were not much favour'd by the Emperour and the Lords of the Senate; wherefore the Embassadors mistrusting the issue of the business, gave a round summ of mony to *Titus Vinus*, that he would mediate their cause, and take upon him the protection of their liberties; by this means their petition was heard and granted; *Tum dignitas & antiquitas Coloniae valuit*, saith *Tacitus*, as if the arguments that seemed light before, were now made weighty through bribes and corruption. But one of the Criticks, a man of no obscure note, hath expunged the word *Tum*, and in stead thereof, put in *Tantum*. And by this perverse custom of Criticks, it comes to pass (as one wisely noteth) that the most corrected copies are commonly the least correct. Nay, (to speak truth) unless the Criticks be well skill'd in the knowledges handled in the Books which they set forth, their diligence is with peril and prejudice. Secondly, their appertains to the Critick Art, the Exposition, and Explication of Authors, by Commentaries, Scholies, Notes, Spicilegies, and the like. In labours of this kind, that worst disease of Criticks hath seis'd on many; that they blanch and wave many obscurer passages; and such as are plain and perspicuous, those they dwell and expatiate upon, even to a fastidious tediousness; and it is not so much intended, that the Author may be illuminated, as that the Critick may take occasion hereby to glorifie himself, in his multiplicious and various learning. It could be especially wished (although this point belongs to *Tradition* in chief, and not to *Appendices*) that the Writer which handles obscure and noble Arguments; should annex his own explications; that neither the Text it self may be broken off, by Digressions and Explications; and that the Annotations may not depart from the mind and intention of the Writer. Some such thing we conceive of *Theon* upon *Euclid*.

Thirdly

Thirdly it belongs to Critick Art (from whence it derives the name) to interpose a brief censure and judgement of the Authors which they publish, and to compare and value them with other Authors upon the same subject: That by such a censure the Learned and Studious, may be both advertis'd of the choice of Books; and come better provided to the perusing of them. This last duty is, as it were, the Chair of the Criticks, which many great and famous men in our age have ennobled; greater surely in our judgement, than for the model of Criticks.

II. *For Pedantical knowledge, it were soon said, consult the Schools of the Jesuites, for there is nothing for the use and practice better than their Precepts: but we will according to our manner, as it were, gleaning a few ears, give some few advertisements. We do by all means approve a Collegiat education and institution of Childhood and Youth; not in private houses, nor only under Schoolmasters. There is in Colledges a greater emulation of Youth towards their equals; besides, there is the sight and countenance of Grave men, which seems to command modesty; and fashions and moulds tender minds, even from their first growth to the same Pattern: in some there are many other utilities of Collegiat Education.*

§ *For the order and manner of Discipline, this I would principally advise; that Youth beware of compends and abridgements, and too forward maturation of knowledge, which makes men bold and confident; and rather wants great proceeding, than causeth it.*

§ *Further there is an indulgence to be given to the liberty and vent of nature in particulars; as if there be any which performs such tasks as the discipline of the place requires; and yet withal steals some hours to bestow on other studies, to which he hath a natural propensity; such a disposition by no means should be checkt or restrain'd.*

§ *Again, it will be worth the pains diligently to observe (which perchance hitherto hath not been noted) that there are two ways, and they; as it were, reflexively opposite, of training up of wits, and of exercising and preparing them. The one begins with the more easie precepts, and by degrees leads us to the more difficult; the other at first commands and presseth more difficult practices, which when they are conquered, the other sweetly yield and are won with ease. For it is one Method to practise swimming by bladders which lift up, and another Method to practise dancing with heavy shooes, which press down the Body; and it is not easie to expresse, how much a wise intermixture of these Methods, conduceth to the advancing of the faculties, both of the Mind and of the Body.*

§ *So the Application and Election of studies according to the propriety of wits, which are instructed, is a matter of singular use and judgement; a true and perfect discovery whereof, Schoolmasters and Tutors owe to the Parents of Children, from whom they may expect such informations, that so they may the better advise upon the particular course of life, unto which they would design and dedicate their sons. But this also is to be exactly observed that not only exceeding great progression may be made in those studies, to which a man is swayed by a natural proclivity; but also that there, may be found, in studies properly selected for that purpose, cures and remedies to promote such kind of knowledge, to the impressions whereof, a man may, by some imperfection of nature, be most unapt and insufficient;*

sufficient. *As for example*, if a man may be *Bird-witted*, that is, quickly carried away, and hath not the patient faculty of attention; the *Mathematicks* give a remedy thereunto, wherein, if the wit be caught away but for a moment, the demonstration is new to begin.

§ *So of exercises in course of teaching, there is matter of great consequence: but there is a point here that hath been noted of few, that there should be of exercises, not only a wise institution, but also a wise intermission.* It hath been excellently observed by *Cicero*, That in exercises it often falls out, that men practise as well their faults, as their faculties; so that an ill habit is sometimes gotten, and insinuates it self together with a Good; wherefore it is a safer way to break exercises, and after to fall to them again, than incessantly to pursue and press them. *But of these enough.* Certainly these things at first view seem no such solemn and grave matters, yet are they in the issue found efficacious and useful. *For as in Plants*, the wronging or cherishing of them while they are Young, is that, that is most important to their thriving or miscarrying: or as the immense greatness of the state of Rome, is by some deservedly attributed to the virtue and wisdom of those *six Kings*, which were as Tutors and Foster-fathers of that state in the Infancy thereof: so surely the culture and manurance of minds in young and tender years, hath such a forcible operation (though unseen and not obvious to every mans observation) which neither length of time, or assiduity and contention of Labour in riper age afterwards, can any way countervail. And it is not amiss to observe how small and mean faculties, if they fall into Great men. or upon Great matters, do sometimes work Great and important effects. *Hereof we will set down a memorable example, which we the rather note, because the Jesuites themselves seem not to despise this kind of Discipline; in our opinion upon sound judgement, and it is a matter, which if it be made professory, is ignominious, if disciplinary, one of the best qualities: We mean Action upon the stage; as that which strengthens memory, moderates the tone and emphasis of voice, and Pronunciation; composes the countenance and gesture to a Decorum, procures a good assurance, and likewise inureth Youth to the faces of men.* The example shall be taken out of *Tacitus*, of one *Vibulenus*, who had been sometimes an Actor upon the stage, but at that time a common souldier in the Pannonian Garrisons. This fellow upon the death of *Augustus* had rais'd a mutiny, so that *Blæsus* the Lievtenant, committed some of the mutiners to Prison; but the souldiers by violent impression brake open the Prisons, and set them at liberty; and *Vibulenus* about to make a Tribunitial speech before the Souldiers, began in this manner. “You
 “have given light and life to these poor innocent wretches; but who
 “restores my brother to me, or life unto my brother, that was sent hi-
 “ther in message from the Legions of Germany, to treat of the com-
 “mon cause, and he hath murdered him this last night by some of his
 “Fencers, that he hath about him for his executioners upon souldiers.
 “Answer *Blæsus*, where hast thou thrown his body? the most mortal
 “enemies, do not deny burial: when I have performed my last duties
 “unto the corps with kisses, with tears, command me to be slain be-
 “sides him; so that these my fellows for our good meaning, and our
 “true hearts to the Legions, may have leave to bury us. With which
 speech he put the Army into such an infinite fury and amaze, that if he
 had

had not incontinently appeared, that there was no such matter, and that he never had any brother; the Soldiers would hardly have spared the Lieutenant's life; for he played it merely, as if it had been some interlude upon the Stage.

§ Now we are come to a period of our Treatise concerning *Rational knowledges*; wherein if we have sometimes departed from the *receiv'd partitions*, yet let no man think that we disallow all those *partitions* which we have not used: for there is a double necessity imposed upon us, of altering the *Divisions*; *The one because these two, namely to sort together those things which are next in nature, and to cast into one pile those things which are next in use; are in their end and purpose altogether differing.* For example: A Secretary of a Prince, or of Estate, so digests his Papers, without doubt, in his Study, as he may sort together things of like nature, as Treaties apart, Instructions apart, Foreign Letters, Domestick letters, all apart by themselves; on the contrary in some particular Cabinet, he sorts together those that he were like to use together, though of several nature: so in this general *Cabinet of Knowledge*, we were to set down *partitions* according to the nature of things themselves: whereas, if any particular Science were to be handled, we should have respected the divisions fittest for use and practice. *The other reason for changing the Division is, because the adjection of Deficients to Sciences; and the reduction of them into an intire Body did by consequence alter the partition of the Sciences themselves.* For say, the Arts which are extant (for demonstration sake) be in number 15, and the Deficients superadded make up the number 20: I say that the parts of 15 are not the parts of 20, for the parts of 15 are 3 and 5, but the parts of 20, are 2, 4, 5 and 10, so is it plain these could not otherwise be. And so much of *Logical Sciences*.

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THE
 Seventh Book
 OF
 FRANCIS L. VERULAM
 VICOUNT S^t ALBAN,
 OF THE
 Dignity and Advancement
 OF
 LEARNING.

To the KING.

CHAP. I.

- I. The Partition of Moral Knowledge, into the Doctrine of Exemplar, or Platform; and into the Georgicks or Culture of the Mind. §. The Division of the Platform of Good, into Good Simple, and Good compar'd. II. The Division of Good Simple, into Individual Good, and Good of Communion.



WE are now come (Excellent King) unto Moral Knowledge, which respecteth and handleth the will of Man: Right Reason governs the Will, Good Apparent seduceth it; the Incentives of the Will are the Affections, the Organs and voluntary Motions are her Ministers; of this faculty Salomon saith, Above all keepings, keep thy Heart; for out of it issue Prov. 4. the affections of life. In handling of this Science, those which have written thereof, seem to me to have done, as if a man that professed the Art of writing, should only exhibit fair Copies of Alphabets and Letters joyned, without giving any precepts for the carriage of the hand, and framing of the Characters: so have they propounded unto us good and fair examples and draughts, or accurate protraitures of

Aristot.
Et. lib. 2.

In Epist.

Demost.

Good, Vertue, Duties, Felicity, as the true objects and scopes of man's Will and Desires : but how to take a just level at these marks (excellent indeed, and by them well set down) that is, by what precepts and directions, the Mind may be subdued and framed, to pursue and attain them ; either they pass it over altogether, or perform it slightly and unprofitably. It is not the disputing that Moral Vertues are in the mind of Man by habit, and not by Nature ; or formally distinguishing between generous spirits, and the obscure vulgar ; that those are won by the weight of Reasons ; these by reward and punishment ; or the witty Precept, that to rectifie the mind of man, it must like a staff be bowed the contrary way to its inclination ; and the like glances scattered here and there. These and the like are far short of being a just excuse of the deficiency of that thing, which now we seek : The reason of this neglect, I suppose to be, that hidden Rock, whereupon so many Barks of Knowledges have run and been cast away ; which is, that writers despise to be conversant in ordinary and common matters ; which are neither subtle enough for Disputation, nor flourishing enough for Ornament. Verily it cannot easily be expressed, what calamity this thing we now speak of hath brought upon Sciences ; that out of an inbred pride and vain-glory, men have made choice of such subjects of Discourse, and of such a manner and method of handling, as may commend rather their own wit, than consult the Readers profit. Seneca saith excellently, *Nocet illis eloquentia, quibus non rerum facit cupiditatem, sed sui* ; For Writings should be such as should make men in love with the Lessons, and not with the Teachers. Therefore they take a right course, which can openly avouch the same of their Counsels, which Demosthenes once did, and can conclude with this clause, *which if you put in execution, you shall not only commend the Orator for the instant, but your selves likewise, not long after, in a more prosperous state of your affairs.* As for my self (Excellent King) to speak the truth of my self, I have often wittingly and willingly neglected the glory of mine own Name, and Learning (if any such thing be) both in the works I now publish, and in those I contrive for hereafter ; whilst I study to advance the good and profit of mankind. And I, that have deserv'd, perchance, to be an Architect in Philosophy and Sciences, am made a Work-man and a Labourer, and at length any thing else whatsoever ; seeing I sustain and work out my self many things that must needs be done ; and others out of a natural disdain shift of and refuse to do. But, (to return to the matter) which we were about to say, Philosophers in Moral Science, have chosen to themselves a resplendent and lustrous mass of matter ; wherein they may most glorifie themselves, for sharpness of Wit, or strength of Eloquence : but such precepts as specially conduce to practice, because they cannot be so set out, and invested with the ornaments of speech ; they have in a manner pass'd over in silence. Neither needed men of so excellent parts, to have despaired of a Fortune like that, which the Poet Virgil, had the confidence to promise to himself, and indeed obtain'd ; who got as much glory of Eloquence, Wit and Learning, in the expressing of the observations of husbandry ; as in describing the Heroical Acts of *Aeneas*.

*Nec sum animi dubius, verbis ea vincere, magnum
Quam sit, & angustis his addere rebus honorem.*

Geor. 3.

And surely if the purpose be good in earnest, not to write at leisure, that which men may read at leisure; but really to instruct and be a subsidiary to Active life; these *Georgicks of Man's Mind*, ought to be had in as great esteem with men, as those heroicall portraitures of Virtue, Goodness, and Felicity, wherein so much labour and cost hath been bestowed.

I. We will therefore divide *Moral Philosophy*, into two main and Principal Knowledges; the one concerning the Exemplar or Image of Good; the other concerning, the Regiment and Culture of the Mind, which we are wont to call the *Georgicks of the Mind*: that describes the Nature of Good; this prescribes rules, how to subdue and accommodate the mind of Man thereunto.

§ The Doctrine touching the Platform, which respects and describes the Nature of Good, considers Good either Simple or Compared, I say either the kinds of Good, or the Degrees of Good. In the later of these, those infinite Disputations and Speculations touching the supreme degree of Good, which they term Felicity; Beatitude; the highest good, (the Doctrines of which were the Heathens Divinity) are by the Christian Faith, taken away and discharged. For as Aristotle saith, *That Young men may be happy, but not otherwise but by hope*; so must we all, being so taught by Christian Faith, acknowledge our selves to be but children and in our Minority; and think of no other felicity, than that which is in hope of the future world. Freed therefore by happy fate from this doctrine, which was the *Heathens Heaven* (wherein without doubt, they attributed a higher elevation of man's Nature, than it was capable of; for we see in what a height of stile *Seneca* writes, *verè Magnum habere fragilitatem hominis, securitatem Dei*) we may certainly with less loss of Sobriety and Truth, receive for most part the rest of their enquiries concerning the doctrine of the Platform. As concerning the Nature of Good Positive and Simple, surely they have set it out in beautiful colours and drawn it to the life, upon excellent Tables; representing with exact diligence to the eye, the Forms, Postures, Kinds, Affinities, Parts, Subjects, Provinces, Actions, Administrations of Virtues and Duties. Nor do they so leave the pursuit; for they have commended and insinuated all these into the spirit of man, with great quickness and vivacity of Arguments, and sweetness, and beauty of Perswasions; yea and fortified and intrenched the same (as much as discourse can do) against corrupt and popular opinions and invasions. As touching the nature of comparative good, they have also well handled that, in setting down that triplicite Order of Good, in comparing contemplative life with Active; in distinguishing between virtue with reluctance, and virtue settled by security and confirmed: in the conflict and encounter between honesty and profit; in the ballancing of virtue with virtue, to see which preponderates other; and the like. So as this part touching the Platform; I find excellently laboured, and that the ancients herein have shewed themselves admirable men: yet so as the pious and painful diligence

Rhet. lib. 2.

In Epist.

ligence of Divines, being practis'd in *Duties, Moral virtues, Cases of Conscience, and circumscriptions of sin*, have far outgone the Philosophers. *Notwithstanding* (to return to the Philosophers) if before they had address themselves to the popular and receiv'd notions of *Virtue, Vice, Pain, Pleasure*, and the rest; they had staid a little longer and had searched the *Roots of Good and Evil, and the strings of those Roots*; they had given in my judgement a great light unto all which might fall into enquiry afterwards: especially if they had consulted as well with the *Nature of things, as with the Axioms of Morality*, they had made their Doctrines less prolix, and more profound: which being by them either altogether omitted, or very confusedly handled, we will briefly re-examine and endeavour to open and clear the springs of *Moral habits*; before we come unto the doctrine of the *Culture or Manurance of the Mind*, which we set down as *Deficient*.

II. There is inbred and imprinted in every thing an appetite to a *duple Nature of Good*; the *One as every thing is a Total or Substantive in it self*; the *other as it is a part or member of some greater Total*: and this latter is more excellent and potent than the *other*: because it tendeth to the conservation of a more *ample form*. The *first may be called Individual or self-Good*; the *latter the Good of Communion*: Iron in a particular Sympathy moves to the *Loadstone*, but yet if it exceed a certain Quantity it forsakes those affections, and like a good Citizen and a true Patriot moves to the *Earth*, which is the *Region and Country of its connaturals*. To proceed a little further; *Dense and Massie Bodies* move to the *Earth*, to the great *Congregation of close-compacted Bodies*; yet rather than to suffer a divulsion in the continuance of nature, and that there should be, as they call it, a *Vacuum*, these *Bodies* will move upwards, forsaking their duty to the *Earth* that they may perform the general duty they owe unto the *World*: so it is ever seen that the *Conservation of the more general and publick form, commands and governs the lesser and more particular Appetites and Inclinations*. But this *Prerogative of the Good of Communion*, is especially engraven upon Man, if he degenerate not, according to that memorable speech of *Pompeius Magnus*, who being in Commission for purveyance for a *Famine at Rome*, and being dissuaded with great vehemence and instance by his friends that he would not hazard himself to *Sea* in an extremity of weather, he answered only this, *Neesse est ut eam, non ut vivam*. So as the love of life which in every *Individual Creature* is so predominant an affection, could not out-ballance his love and loyalty to the *state*. But why do we dwell upon this *Point*? There was never extant in any age of the world, either *Philosophy, or Sect, or Religion, or Law, or Discipline*, which hath so highly exalted the *Good of Communion* and depress'd *Good private and particular*, as the *Holy Christian Faith*, whereby it clearly appears, that it was one and the same *God* that gave the *Christian Law* to Men, who gave those *Laws of Nature* to *Creatures of inferior order*. Wherefore we read that many of the elect *Saints of God* have rather wished themselves anathematiz'd and raz'd out of the *Book of Life*, than that their brethren should not attain salvation; provoked through an extasie of *Charity* and an infinite feeling of the *Good of Communion*. This being set down and strongly planted, doth judge
and

and determine many of the profoundest Controversies in *Moral Philosophy*. For first, it decideth the Question touching the preferment of the *Contemplative or Active life*; and that against the opinion of *Aristotle*: for all the reasons which he brings for the *Contemplative*, respect a *private Good*, and the pleasure and dignity of an Individual only; in which respects (no question) a *Contemplative life* hath the preheminance. For the *Contemplative life* is not much unlike to that comparison which *Pythagoras* made for the gracing and magnifying of *Philosophy* and *Contemplation*; who being askt by *Hiero* what he was, answered; "That
 " if *Hiero* were ever at the *Olympian Games*, he knew the manner that some
 " came to try their fortunes for the prizes; and some came as *Merchants* to
 " utter their commodities; and some came to make good cheer, to be merry,
 " and to meet with their friends; and some came to look on, and that he
 " was one of them that came to look on. But men must know that in this
 Theatre of Man's life, it is reserved only for God and Angels, to be
 Lookers on. Neither surely could it have been that any doubt, touch-
 ing this point, should ever have been rais'd in the Church (notwith-
 standing that saying was frequent in many mens mouths, *Pretiosa in o-*
culis Domini mors sanctorum ejus: by which place they use to exalt their
 Civil Death and the Laws of a Monastick and Regular course of life;) Iacob. in
vita.
 but upon this defence, that the *Monastical life* is not simply *Contempla-*
tive; but is altogether conversant in *Ecclesiastick Duties*, such as are in-
 cessant Prayer; Sacrifices of Vows performed to God; the writing al-
 so, in such great leisure, Theological Books for the propagation of the
 knowledge of the *Divine Law*, as *Moses* did when he abode so many
 days in the retir'd secrecy of the Mount. And so we see *Enoch* the seventh
 from *Adam*, who seems to be the first founder of a *Contemplative life*,
 (for he is said to have walked with God) yet endowed the Church with
 a Book of Prophecie, which is also cited by *St. Jude*. But as for a mere
Contemplative life, and terminated in it self, which casteth no Beams of
 heat or light upon humane society; assuredly Divinity knows it not. Psal.
CXVI.
 It decides also the Question controverted with such heat between the
 Schools of *Zeno* and *Socrates*, on the one side, who placed Felicity in
 Virtue simple or attended, which hath a great share in the *Duties of*
life: and on the other side other Sects and Professions, as the Schools
 of the *Cyrenaicks* and *Epicureans*, who placed it in pleasure; and made
 Virtue, (as it is used in some Comedies, where the Mistress and the Maid
 change habits) to be but as a hand-maid, without which Pleasure can-
 not be well waited and attended upon; as also that other, as it were,
 reformed School of *Epicurus*, which asserted Felicity to be nothing else
 than a Tranquillity and Serenity of Mind free and void of all Pertur-
 bations; as if they would have deposed *Jupiter* from his Throne and
 restored *Saturn* with the Golden Age, when there was no Summer
 nor Winter, nor Spring nor Autumn, but all after one Air and Season.
 Lastly, the exploded School of *Pyrrho* and *Herillus*, which placed Fe-
 licity in the utter extinction and extirpation of all the scruples and dis-
 puts of the mind, making no fixt and constant nature of Good, and E-
 vil, but esteeming Actions Good or Evil, as they proceed from the
 Mind in a clear and resolute motion; or contrary-wise with averfation
 and reluctance. Which opinion notwithstanding hath revived in the
 Heresy Exod.
XXIII.
Gen. V.
In Epist.
Laert. vi-
ta.

Epic't. En-
chir. Arri-
rian. Lib.
1.

Prov. xv.

Alix
Alix
Summa
Stoic.
Philos.

Herefy of the *Anabaptists*, who measur'd all things according to the *Motions and Instincts of the spirit*, and the *constancy, or wavering of Belief*. But it is manifest that all this we have recited, tends to private repose and complacency of Mind, and no way to the Point of *Society*, and the *Good of Communion*. Again, it censures also the Philosophy of *Epic'tetus*, who layes down this presupposition; *That Felicity must be placed in those things which are in our power, lest we be liable to fortune and disturbance*: as if it were not a thing much more happy, to be disturbed and frustrated of a good success in worthy and generous intentions and ends, which concern the *Publick Good*, than to obtain all that we can wish to our selves, in those things which refer to our *Private Fortune*. As *Consalvo* shewing his Souldiers *Naples*, bravely protested, *That he had rather run himself upon certain ruine with one foot forward, than to have his life secur'd for long, by one foot of retreat*. Whereunto the wisdom of that heavenly leader and commander hath sign'd, who affirm'd, *That a good conscience is a continual Feast*; by which words is plainly signified, *that a Mind Conscious of good Intentions, however succeeding, affords more solid and sincere joy, and to nature more agreeable, than all that provision wherewith man may be furnisht either for the fruition of his desires, or the repose of his Mind*. It censureth likewise that abuse of Philosophy, which grew general about the time of *Epic'tetus*; which was, that *Philosophy* was converted into a professory kind of life, and, as it were, into an *Occupation or Art*; as if the purpose of Philosophy, was not to repress and extinguish perturbations, but to fly and avoid the causes and occasions of them; and therefore to shape a particular kind and course of life to that end; introducing indeed such a kind of health of mind, as was that of *Herodicus* in body, whereof *Aristotle* makes mention, which was, *that he did nothing all his life long but intend his health*, and therefore abstain'd from infinite number of things, being amerced by the fruition of his body: whereas if men refer themselves to duties of society, that health of Body is principally to be desired, which may best endure and overcome all alterations and extremities: so likewise that mind is properly sound and strong, which can break through the most and greatest temptations and perturbations. So as *Diogenes* seems to have spoken well, who commends those powers of the Mind, *which were able not warily to abstain but valiantly to sustain*, and which could refrain the violent encounter of the Mind, even in the steepest Precipices, and which could give unto the Mind (which is commended in well-broken horses) the shortest stop and turn. Lastly, it censures the tenderness and the want of Morigerous application, noted in some of the most ancient and reverend Philosophers, that did retire too easily from Civil business, that they might discharge themselves of all indignities and perturbations, and so might live, in their opinion, more unstained, and, as it were, sanctified persons; whereas the resolution of a man truly moral, ought to be such, as the same *Consalvo* required in a souldier, which is that his Honour should be woven *è Tela Crassiore*, and not so fine as that every thing should catch in it, and tear it.

CHAP. II.

I. The Partition of *particular or private Good*, into *Good Active*, and *Good Passive*. II. The Division of *Good Passive*, into *Conservative Good*, and *Perfective Good*. III. The Division of the *Good of Communion*, into *General and Respective Duties*.

I. **W**herefore let us now resume and prosecute, first *private or particular Good*, we will divide it into *Good Active* and *Good Passive*, for this difference of *Good* (not unlike surely to those Appellations, which, amongst the Romans, were familiar in their Household Terms of *Promus* and *Condus*) is found impress'd in the whole course of Nature: but chiefly discloseth it self in the two several Appetites of Creatures; the one of *conserving and fortifying* themselves; the other of *multiplying and dilating* themselves; and this latter which is *Active*, and as it were, the *Promus*, seems to be the more powerful, and the more worthy; but the former which is *Passive*, and, as it were, the *Condus*, may be taken as inferiour and less worthy. For in the universal frame of Nature, the Heavenly Nature is chiefly the *Agent*; the Terrestrial Nature the *Patient*: so in the pleasures of living Creatures, the pleasure of Generation is greater than that of Nutrition: and in the divine Oracles it is pronounced, *Beatiùs esse dare quam accipere*. Nay farther, in the common course of life, there is no mans spirit so soft and effeminate, but esteems the effecting, and bringing to some issue that which he hath fixt in his desire, more than any sensuality or pleasure. And certainly this preheminance of *Active Good*, is infinitely exalted from the consideration of our humane condition, that it is mortal, and also expos'd to the stroak of Fortune: for if there could be obtained a license of perpetuity and certainty in humane Pleasures, their price would be advanced, for their security and continuance. And in as much as we see, that the summ of all comes to this, *Magni aestimamus mori tardus; Et ne gloriaris de crastino, nescis partum Diei*: it is no wonder, if with all contention of spirit, we pursue those things, which are secur'd and exempt from the injuries and affronts of time: and these things can be nothing else but only our *deeds*, as it is said, *opera eorum sequuntur eos*.

Act. 103.

ApoC. XIV.

§ There is likewise another preheminance of *Good Active* of import, implanted in, and supported by that affection, which cleaves close to man's nature, as an individuate companion; which is the *love of Novelty and Variety*. And this *Affection* in the pleasures of senses (which are the very principal part of *Passive Good*) is exceeding narrow, and hath no great latitude: *Do but think* (saith *Seneca*) *how often you have acted over the same things, Meat, Sleep, Mirth; we run round in this circle, to be willing to dye, not only a valiant, or a wretched, or a wise man may, but even a fastidious and nice nature may*. But in the Enterprises, Purposes and Pursuits of our life, there is much variety, whereof we are sensible in our inceptions, progres-

Sen alicubi.

Sen. in Ep.

Prov.

sions, rests, recoils, to redintegrate our forces, approaches, attainings, and the like; so as it was very well said, *vita sine Proposito languida & vaga est*: which indifferently befalls both to the wise and unwise, as saith Solomon, *A light-brain'd man seeks to satisfie his fancy, and intermixeth himself in all things*. Nay, we see likewise, that many great Princes, who may have at command whatsoever can delight the Senses, notwithstanding many times, have procured to themselves poor desires, and set their hearts upon toys; (as Nero, *in playing upon the Harp*; Commodus *in playing at Fence*; Antoninus *in driving Chariots*, and others taken up with other delights) which to them were more acceptable than all the affluence of sensual pleasures: so much greater refreshing and contentment it is, to go forward in Action, than to stand at a stay in fruition. This, in the mean time, is to be somewhat more diligently noted; that this *Active individual Good*, altogether differs from the *good of Society*, though oftentimes they are coincident; for although that *particular active Good* doth many times breed, and bring forth *Acts of Beneficence*, which is a *Vertue of Communion*; yet here's the difference, that those Acts are by most men performed, not with intention to benefit and make happy others, but merely in a private respect to themselves, and their own power and amplification. This best appears when *Good Active* lites upon a subject which is contrary to the *Good of Communion*: for that Gigantive State of mind which possesseth the troublers of the world (such as was *L. Sylla*, and infinite others, though in a far smaller Model) who seem to endeavour this, to have all men happy or unhappy, as they were their Friends or Enemies, and that the world might bear their stamp, and be formed to their humours (which is the true *Theomachie*) this, I say, aspires to *active particular Good* at least in appearance, although it doth most of all recede from the *Good of Society*.

II. But we will divide *Passive Good* into *Good Conservative* and *Good Perfective*: For there is implanted in every thing a triple Appetite in respect of *private or particular Good*; the first of *preserving or continuing it self*; the second of *advancing and perfecting it self*; the third of *multiplying and extending it self*: but this last Appetite is refer'd to *Active Good*, whereof we speak even now. There remain therefore the two other kinds of *Good*, of which the *Perfective* excels; for it is less to conserve a thing in its natural state, but greater to advance the same thing to a higher nature; for there are found through all Essences some nobler natures to the dignity and excellency whereof inferiour natures do aspire, as to their Originals and Springs. So concerning Men, the Poet doth not impertinently describe,

Virg. An. 6.

Igneus est Ollis vigor & Cælestis Origo;

Man's assumption or approach to a Divine or Angelical Nature is the perfection of his Form; a depraved and preposterous imitation of which *Perfective Good* is the destruction of humane life, and a violent tempest which bears down and ruines all, that is, while men

instead

instead of a formal and essential advancement are carried in a blinde ambition to an advancement only Local. For as those which are sick and find no Remedy, do tumble up and down, and change place, as if by a remove Local, they could obtain a remove Internal, and shift of their disease: so it is in Ambition that men being possess'd and led away with a false resemblance of exalting their nature, purchase nothing else but an eminence and celsitude of Place.

§. But *Good Conservative* is no other than the reception and fruition of things agreeable to our Nature; and this *Good* though it be most simple and native; yet seems it to be of all other kinds of *Good* the softest and lowest. And this *Good* also admits a difference, which hath neither been well judg'd of, nor well inquired; for the *Good of Fruition*, or (as it is commonly call'd) the dignity and commendation of *delightful Good*, is placed either in the *Sincerity of the Fruition*, or in the *quickness and vigor* of it; whereof the one is superinduced by *Equality*; the other by *Variety* and *Vicissitude*: the one having a less mixture of *Evil*; the other a more strong and lively impression of *Good*. But of these, *whether is the greater Good*, is a question controverted: But *whether a man's nature may be capable of both at once*, is a question not inquired.

§ As touching that whereof a Question is rais'd: a Controversie began to be debated between *Socrates* and a *Sophist*; *Socrates* affirm'd, That *Felicity* was placed in a constant Peace and Tranquility of mind; but the *Sophist* in this, That a man desire much and enjoy much. And so they fell from Arguments to ill words; the *Sophist* saying that *Socrates's Felicity* was the *Felicity of a block or stone*: *Socrates* on the other side, That the *Sophist's Felicity* was the *Felicity of one that had the Itch, who did nothing but itch and scratch*. And both these opinions do not want their supports; for to *Socrates's* opinion assents even the School of *Epicurus*, which deems not but that *Vertue* beareth a great part in *Felicity*; and if so, Certain it is, that *Vertue* hath more use in clearing Perturbations, than in compassing desires. The *Sophist's* opinion is much favour'd by the assertion we last spake of; namely that *Good Perfective* is greater than *Good Preservative*, because the obtaining of things desired, seems by degrees to perfect nature; which though it do not do it indeed, yet the very motion it self in circle hath a shew of *Progressive Motion*.

But the second Question, (*whether humane nature may not at once retaine, both the tranquility of mind, and the active vigor of fruition*.) decided, the true way makes the former idle and superfluous. For do we not often see that some men are so fram'd and compos'd by Nature, as they are extremely affected with pleasures while they are present; and yet are not greatly troubled at the leaving or loss of them. So as the Philosophical consequence, *Non uti, ut non appetas, non appetere, ut non metuas*, seems to be the resolution of a poor and diffident spirit. Surely most of the Doctrines of Philosophers seem to be somewhat more fearful and cautionary, than the nature of things requireth; as when they encrease the fear of death by curing it: for when they would have a man's whole life to be but a discipline or preparation to dye, how can it be, that that enemy should not seem

wonderful terrible, against whom there is no end of preparing? better faith the Poet though a Heathen,

Juven. Satyr.
10.

*Qui spacium vitæ extremum, inter munera ponat
Naturæ.* —

So have the Philosophers sought to make the Mind in all things uniform and Harmonical; by not breaking them to contrary Motions and Extremes. The reason whereof I suppose to have been, because they dedicated themselves to a private course of life; exempt and free from active employments and observances to others. But let men rather imitate the wisdom of Jewellers, who, if perchance, there be in the Gemm a Cloud or an Ice, which may so be grownd forth, as it abate not the stone too much, they help it, otherwise they will not meddle with it: so ought men so to procure *Serenity* of mind as they destroy not *Magnanimity*. Thus much of *Particular Good*.

III. Now therefore after we have spoken of *Self-good* (which also we use to call *Good Particular, Private, Individual*, let us resume the *Good of Communion*, which respecteth *Society*, this is commonly termed by the name of *Duty*, because the term of *Duty*, is more proper to a mind well fram'd and dispos'd towards others; the term of *Virtue*, to a mind well form'd and compos'd in it self. But this part at first sight may seem to pertain to *Science Civil, or Politick*, but not if it be well observed; for it concerns the Regiment and Government of every man over himself, and not over others. And as in *Architecture*, it is one thing, to to frame the Posts, Beams, and other parts of an Edifice, and to prepare them for the use of building; and another thing, to fit and joyn the same parts together: and as in *Mechanicals*, the direction how to frame, and make an instrument or engine, is not the same with the manner of erecting, moving, and setting it on work: So the doctrine of the conjugation of men, in a *City or Society*, differs from that which makes them conformed, and well affected to the weal of such a *Society*.

§ This Part of Duties is likewise distributed into two portions, whereof the one respects the *common duty of every man*, the other the *special and respective Duties* of every man in his profession, vocation state, person, and place. The first of these, hath been well laboured, and diligently explicated by the Ancients and others, as hath been said: the other we find to have been sparsedly handled, although not digested into an entire body of a *Science*; which manner of dispersed kind of writing, we do not dislike; howbeit in our judgement, to have written of this Argument by parts, were far better. For who is endewed with so much perspicacity and confidence, as that he can take upon him to discourse, and make a judgement skilfully, and to the life, of the *peculiar and respective duties* of every particular order, condition and Profession? And the treatises which are not season'd with experience, but are drawn only from a general and Scholastical notion of things, are touching such matters, for most part, idle and fruitless discourses. For although sometimes a looker on

may

may see more than a Gamester; and there be a common proverb, more arrogant than sound, proceeding from the censure of the vulgar, touching the actions of Princes, *That the vale best discovereth the Hills*; yet it could be especially wished, that none would intermeddle or engage themselves in subjects of this nature, but only such as are well experienc'd and and practis'd in the particular customs of men. *For the labours and vigilancies of speculative men, in Active Matters, do seem to men of experience, little better, than the discourses of Phormio of the wars, seemed to Hannibal, which esteemed them but dreams and dotage.* Only there is one vice which accompanies them, which write books of matters pertaining to their own profession, and Art, which is, that they magnifie and extol them in excess.

Cic. Lib. 2. de Oratore.

§ *In which kind of Books, it were a crime Piacular; not to mention, Honoris causa, Your Majesty's excellent work touching the duty of a King: for this writing hath accumulated and congested within it many treasures as well open as secret of Divinity, Morality, and Policy, with great aspersions of all other Arts; and it is in my opinion one of the most sound and healthful writings that I have read. It doth not float with the heat of Invention; nor freeze and sleep with the coldness of negligence: it is not now and then taken with a wheeling dizziness, so to confound and lose it self in its order; nor is it distracted and discontinued by digressions, as those discourses are; which by a winding expatiation, fetch in and enclose matter that speaks nothing to the purpose; nor is it corrupted, with the cheating Arts of Rhetorical perfumes and paintings, who chuse rather to please the Reader, than to satisfy the nature of the Argument. But chiefly that work hath life and spirit, as Body and Bulk, as excellently agreeing with truth, and most apt for use and action: and likewise clearly exempt from that vice noted even now, (which if it were tolerable in any, certainly, it were so in Kings, and in a writing concerning Regal Majesty) namely, that it doth not excessively and invidiously exalt the Crown and Dignity of Kings. For Your Majesty hath not described a King of Persia or Assyria, radiant, and shining in extreme Pomp and Glory; but really, a Moses or a David, Pastors of the People. Neither can I ever lose out of my remembrance, a Speech, which Your Majesty, in the sacred Spirit, wherewith you are endowed to govern Your people, delivered in a great cause of Indication, which was, That Kings rul'd by the Laws of their Kingdoms, as God did by the Laws of Nature; and ought as rarely to put in use that their prerogative, which transcends Laws, as we see God put in use his power of working Miracles. And yet notwithstanding in that other book, written by Your Majesty, of a free Monarchy, You give all men to understand, that Your Majesty, knows and comprehends the Plenitude of the Power of Kings, and the Ultimities (as the Schools speak of Regal Rights; as well as the circle and bounds of their Office, and Royal Duty. Wherefore I have presumed, to alledge that book written by Your Majesty, as a prime and most eminent example of Treatises, concerning special and respective Duties. Of which Book, what I have now said, I should in truth have said as much, if it had been written by any King a thousand years since. Neither doth that kind of nice Decency move me, whereby commonly it is prescribed*

K. JAMES,
DORON,
BASIL.JACOB. R.
dictum me-
morab.DE LIB.
MONAR.

Cicero. *not to praise in presence, so those Praises exceed not measure; or be attributed unseasonably or upon no occasion presented. Surely Cicero, in that excellent oration Pro M. Marcello, studies nothing else, but to exhibit a fair Table drawn by singular Art, of Caesar's virtues, though that Oration was made to his face; which likewise Plinius secundus did to Trajan. Now let us resume our intended purpose.*

Plin. Jun. m

*
SATYRA
SERIA,
sive de Interi-
oribus rerum.

Prov. XIV.

§ There belongs farther to this part, touching the *Respective Duties of vocations and particular Professions*, and other *knowledge*, as it were, *Relative and opposite unto the former, concerning the Frauds, Cautels, Impostures, and Vices of every Profession*: For *Corruptions and Vices*, are opposed to *Duties and Virtues*. Nor are these *Depravations* altogether silenced in many *Writings and Treatises*; but for most part, these are noted only upon the by, and that by way of *Digression*: but how? rather in a *Satyr and Cynically* after *Lucian's* manner, than seriously and gravely, for men have rather sought by wit to traduce, and to expose to scorn that which is useful and sound, in *Arts and Professions*; than to sever that which is good and wholesome, from that which is corrupt and vitious. But *Solomon* saith excellently; *A scorner seeks wisdom and finds it not; but knowledge is easie unto him that understands*: for he that comes to seek after knowledge, with a mind to scorn, and censure; shall be sure to find matter for his humour, but no matter for his instruction. And certainly a grave and wise *Treatise* of this argument, whereof we now speak, and that with sincerity and integrity, seemeth worthy to be reckoned one of the best fortifications of virtue and honesty, that can be planted. For as the *Fable* goes of the *Basilisk*, that if he see a man first, the man dyes; but if a man see him first, the *Basilisk* dyes; so it is with *Frauds, Impostures, and evil Arts*; if a man discover them first, they lose their power of doing hurt; but if they prevent, then, and not otherwise they endanger. So that we are much beholding to *Machiavil*, and such writers, who discover apertly and plainly, what men use to do, not what men ought to do: for it is not possible to joyn the *wisdom of the Serpent, with the Innocency of the Dove*, except a man know exactly the nature of evil it self; for without this skill, virtuelyes open and unfenc'd; nay a sincere and honest man can do no good upon those that are wicked, to reclaim them, unless he know all the coverts and profundities of Malice. For men of corrupt minds and deprav'd judgments presuppose, that honesty grows out of the weakness of Nature, and simplicity of Manners, and only out of a belief given to Preachers and School-Masters; as likewise to Books; *Moral Precepts*; and popular opinions: so that unless you can make them plainly to perceive, that their deprav'd and corrupt Principles, and crooked Rules, are as deeply founded, and as plainly discovered by those who exhort and admonish them, as they are to themselves, they despise all the integrity of *Moral Practices or Precepts*; according to that admirable Oracle of *Solomon*, *Non recipit stultus verba prudentiae, nisi ea dixeris, quae versantur in corde ejus*. But this part concerning *Respective Cantels and vices*, we place in the number of *Deficients*, and will call it by the name of *Satyra Seria*, or of a *Treatise De interioribus Rerum*.

Prov. 18.

So

So to this kind of knowledge, touching *Respective Duties*, do also appertain the *Natural Duties* between Husband and Wife; Parents and Children, Master and Servant: so likewise the laws of Friendship and Gratitude; as also the Civil bonds of Corporations, Companies, Colledges, Neighbour-hood and the like. But it must ever be presupposed, that they are here handled, not as parts of *Civil Society* (for that is referr'd to the Politicks) but as to the framing and predisposing of the minds of Particular persons, to the maintaining of those *Bonds of Society*.

§ *But the Knowledge concerning the Good of Communion or of Society*, even as that of *Good Individual*, doth handle *Good* not *simple alone*, but also *comparatively*; whereunto belongs the weighing of Duties between Person and Person; Case and Case; Private and Publick; between time Present and Future: as we may see in the severe and cruel proceeding of *L. Brutus* against his own Sons, which by the most was extoll'd to the heavens; yet another said

Infelix utcunq̄e ferent ea fata Minores.

The same we may see in that supper unto which *M. Brutus*, and *C. Cassius* were invited, for there, when there was a question shrewdly cast forth, *Whether it was lawful to kill a Tyrant?* on purpose to feel the minds of the company, touching a conspiracy intended against *Cæsar's* life; the guests were divided in opinion; some said it was directly lawful, for that *servitude was the extreme of Evils*; others were of a contrary mind, for that *Tyranny was not so great a misery as Civil war*; a third sort, as if they had issued out of the School of *Epicurus*, avouched; *That it was an unworthy thing, that wise men should hazard their lives and states for Fools.* But there are many Cases touching *comparative Duties*, amongst which, that of all other is the most frequent; *Whether a man ought to swerve from the rule of Justice, for the safety of his Country, or some such notable Good to ensue afterward?* Touching which case *Jason of Thessaly* was wont to say, *Aliqua sunt injustè faciendæ ut multa justè fieri possint*, but the Reply is ready, *Authorem presentis justitiæ habes, sponsorem futuræ non habes*: Men must pursue things which are just in present, and leave the future to the Divine Providence. And thus touching the *Exemplar*, or of the description of *Good*.

Liv. Hist.
lib. 2.
Florus Hist.
lib. 1.
Plutar.
in M. Bruto;

Plut. Moral.
Præc. gerend.
Reip.

CHAP. III.

I. The Partition of the Doctrine of the Culture of the Mind, into the Knowledge of the Characters of the Mind. II. Of the Affections or Passions. III. And of the Remedies or Cures. IV. An Append of the same Doctrine, touching the Congruity between the Good of the Mind, and the Good of the Body.

NOW that we have spoken in a Philosophical sence of the fruit of Life, it remains that we speak of the Culture of the Mind, which is due unto it, without which the former part seems nothing else, than an Image or Statue, beautiful to contemplate, but destitute of Life and Motion; to which opinion, Aristotle himself subscribes in these plain words, *Wherefore it is necessary to speak of virtue, both what it is, and from what it proceeds: for it would be to little purpose, to know virtue, and to be ignorant of the manner and means how to compass it. Concerning virtue therefore inquiry must be made, not only of what kind it is but by what ways it may be acquired: for we desire both these, the knowledge of the thing it self, and the fruition thereof; but this cannot be effected, unless we know of what materials it is compounded, and how to procure the same: In such full words, and with such iteration doth he inculcate this Part; which yet notwithstanding himself pursues not. This likewise is the very same which Cicero attributes to Cato the Younger, as a great commendation, which was, that he had applyed himself to Philosophy, Non disputandi causa, ut magna pars, sed ita vivendi. And although, through the negligence of the times wherein we live, few hold any consultation diligently, to manure and till the Mind, and frame their course of life (according to some Rule; according to that of Seneca, De partibus vitæ quisque deliberat, de summâ nemo; so as this part may seem superfluous,) yet this moves us not, so as to leave it untouched, but rather we conclude with that Aphorism of Hippocrates, They who are sick of a dangerous disease, and feel no pain, are distempered in their understanding: Such men need medicine, not only to affwage the disease, but to awake the sense. And if it be said that the Cure of mens minds, belongs to sacred Divinity, it is most truly said; but yet why may not Moral Philosophy be accepted into the train of Theology, as a wise servant and a faithful handmaid, ready at all commands to do her service? For as it is in the Psalm, That the eyes of the Handmaid, look perpetually towards the Mistress; and yet no doubt many things are left to the discretion and care of the Hand-maid; so ought Moral Philosophy to give all due observance to Divinity, and to be obsequious to her Precepts; yet so, as it may yield of it self, within its own limits, many sound and profitable directions. This Part therefore, when I seriously consider, the excellency thereof, I cannot but find exceeding strange, that it is not yet reduced into a Body of Knowledge. Wherefore seeing we have reported it as Deficient, we will after our manner give some Adumbrations thereof.*

I. First

Mag. Moral.
lib. 1.Pro. L. Mu-
ran.

De Brev. vitæ.

Aphor. 1. 2.

Psal. 123.

I. *First therefore, in this as in all things which are Practical, we ought to cast up our account, what is in our power, and what not: for the one may be dealt with by way of Alteration; the other by way of Application only.* The Husband-man cannot command either the nature of the Earth, or the seasons of the weather; no more can the Physician the natural temper or constitution of the Patient or the variety of Accidents. Now in the *Culture of the mind of Man*, and the cure of the Diseases thereof; three things fall into consideration: *The divers Characters of Dispositions; the Affections; and the Remedies.* As in curing the Body three things are propounded, the *Complexion or Constitution of the Patient; the Disease; and the Cure;* and of these three, the last only is in our power, the two former are not. Yet even in those things which are not in our power, no less diligent inquiry is to be made thereof, than in those which are subject to our power; for a distinct and exact knowledge of them is to be laid as a ground-work to the *knowledge of the Remedies;* that they may be more aptly and successfully applied; for neither can a garment be well fitted to the Body, unless you first take the measure of the Body.

§ *Wherefore the first article of this knowledge of the Culture of the Mind, shall be conversant about the divers Characters of mens natures or dispositions.* Neither do we here speak of those common Proclivities to virtues and vices; or Perturbations and Passions: but of those which are more intrinsick and radical. Surely for this part of knowledge, I do much wonder that it should be, for most part, so neglected or slightly past over, by writers Moral and Political; considering it casts such resplendent Beams upon both those kinds of knowledges. In the Traditions of *Astrology*, the natures and dispositions of men, are not without some colour of truth, distinguished from the Prædominancies of Planets; as that some are by nature made and proportioned for *contemplation;* others for *matters Civil;* others for *War;* others for *Advancement;* others for *Pleasure;* others for *Arts;* others for changeable course of life. So among the Poets, Heroical, Satyrical, Tragedians, Comedians, you shall find every where, the Images of wits, although commonly with excess and beyond the bounds of Truth. Nay this same Argument of the *divers Characters of Nature*, is one of those Subjects, wherein the common discourses of men, (which very seldom, yet sometimes falls out) are more wise than Books. But the best provision and collection for such a treatise, ought to be fetcht from the observations of the wisest sort of Historians; not only from Elogies and Panegyricks, which commonly follow the death of a Person; but much more from the entire body of a History, so often as such a personage doth, as it were, enter upon the stage. For this inter-woven Image, seems to be a more lively description, than the censure of an Elogy; such as is that in *T. Livius, of Africanus, and of Cato the Elder; in Tacitus of Tiberius, Claudius and Nero; in Herodian, of Septimius Severus; in Philip de Commines, of Lewis the XI. King of France; in Fra. Guicciardine, of Ferdinand King of Spain; Maximilian the Emperor; Leo and Clemens, Bishops of Rome.* For those writers fixing their eyes continually on the Images of these Persons, whom they made choice of to decipher,

and pourtrait, seldom mention their Acts and Atchievements, but withal, insert something touching their nature and dispositions; so likewise many *Relations, touching the Conclaves of Popes*, which we have met withal, represent good *Characters, and lively Impressions*, of the natural dispositions of *Cardinals*; as the letters of Ambassadors, set forth the nature and manners of Counsellors to Princes. Wherefore let there be a full, and perfect collection made of this argument, whereof we have spoken, which certainly is fertile and copious. *Neither would we*, that those *Characters* in the *Ethicks* (as it is with Historians, Poets, and in common speech,) should be accepted as perfect politick Images; which compounded and commixt constitute any resemblances whatsoever; how many and of what sort they may be; and how they are connext and subordinate one with another: that there may be made, as it were, an artificial and accurate dissection of natures and dispositions; and a discovery of the secret inclinations of Individual tempers; and that from a knowledge thereof, precepts of cure may be more pertinently prescribed.

§ And not only the *Characters of dispositions*, impressed by nature, should be received into this Tractate; but those also which are imposed upon the mind, from Sex, Age, Region, Health, Beauty, and the like: as also those from extern fortune, as of Princes, Nobles, obscure Persons; Rich, Poor, Private persons, Prosperous, Miserable and the like. For we see *Plautus* makes it a wonder to see an old man Beneficent, *Benignitas quidem hujus, oppidò ut adolescentuli est*: and *St. Paul*, commanding that the severity of discipline, should be used to the *Cretans*, (*rebuke them sharply*) accuseth the nature of that Nation from a Poet; *Cretenses semper mendaces, mala bestia, ventres pigri*. *Salust* notes this in the nature of Kings, that it is usual with them to desire contradictories; *Plerunq; Regia voluntates ut vehementes sunt; sic mobiles, saepeq; ipsa sibi adversa*, *Tacitus* observes that Honours and Advancements, oftner change mens natures to the worse, than to the better, *Solus Vespasianus mutatus in melius*. *Pindarus* makes an observation, that great and *Sodom's* fortune, for most part, loosens and dissinews mens minds; *sunt, qui magnam felicitatem concoquere non possunt*: so the Psalm sheweth, that it is more easie to keep a measure and temperament, in a modest consistency; than in the increase of Fortune, *If Riches increase, set not your heart upon them*. These observations and the like, I deny not, but are touched a little by *Aristotle*, as in passage, in his *Rhetoricks*; as likewise in the writings of others dispersedly by the way; but they were never yet incorporated into *Moral Philosophy*, to which they do principally appertain; no less certainly, than the handling of the diversity of grounds and moulds, doth to *Agriculture*; or the handling of the diversity of complections and constitutions of the body, doth to *Medicine*. The same must be observed here, except we mean to follow the indiscretion of *Empiricks*, which minister the same medicines to all Patients, of what constitution soever.

II. After the knowledge of *Characters* follows the knowledge of *Affections* and *Passions*, which are as the *Diseases of the Mind*, as hath been said. For as the Ancient Politicks in Popular States were wont

Mil. Glo.
Ad Tit. c. 1 ex
Epiimen.

In Jugurth.

Hist. lib. 1.

Pindar.

Psal. 62.

to say, *That the people were like the Sea, and the Orators like the winds*; because as the *Sea* would of it self be calm and quiet, if the *winds* did not move and trouble it; so the *People* of their own nature would be peaceable and tractable, if the *seditions Orators* did not set them in working and agitation. So it may be truly affirmed, that *mans mind* in the nature thereof, would be temperate and staid, if the *affections*, as winds, did not put it into tumult and perturbation. And here again I find it strange, that *Aristotle*, who writ so many books of *Ethicks*, should never in them handle the *Affections*, as an essential member of *Ethicks*; and yet in the *Rhetoricks*, where they are considered but Collaterally, and in a second degree (that is, so far as they may be rais'd and moved by speech) he finds place for them, (in which place notwithstanding, for such an abridgement, he discourseth acutely and well:) for his disputations about *pleasure and pain*, no way satisfieth this inquiry; no more than he that should write only of *light and lightning*, could be said, to have written of the nature of *particular Colours*; for *Pleasure and Pain*, are to the particular affections, as *light* is to *Colours*. Better travels the *Stoicks* have taken in this argument, as far as may be conjectured from such Remains as are extant; but yet such as consisted rather in curiosity of Definitions, than any full and ample descriptions. So likewise I find some elegant Books of some *affections*, as of *Anger*, of *Tenderness*, of *Countenance*, and some few other. But to speak the truth, the best Doctors of *this knowledge* are the Poets, and writers of Histories, where we may find painted and dissected to the life, how affections are to be stirred up and kindled; how still'd and laid asleep; how again contain'd and refrain'd, that they break not forth into Act; likewise how they disclose themselves, though repress'd and secreted; what operations they produce; what turns they take; how they are enwrapt one within another; how they fight and encounter one with another; and other the like Particularities. Amongst the which, this last is of special use in Moral and Civil matters, *How, I say, to set Affection against Affection; and by the help of one to master and reclaim another?* After the manner of Hunters and Fowlers, who hunt Beast with Beast; and fly Bird with Bird; which percase of themselves without the assistance of Bruit Creatures, a man could not so easily recover. Nay farther, upon this foundation, is erected, that excellent and universal use in matters Civil of *Premium* and *Pæna*, which are the *Pillars of Civil States*; seeing those predominant *Affections* of *Fear* and *Hope* do bridle and suppress all other exorbitant *Affections*. Again, as in government of States, it is sometimes necessary to confront and bridle one Faction with another; so it is in the inward *Gouvernement of the Mind*.

III. Now come we to those Points which are *within our own command*, and have force and operation upon the mind, and also affect, dispose, and manage the *Will* and *Appetite*; and therefore are of great force to alter the manners. In which part the Philosophers ought to have made a painful and diligent *Inquiry* touching the *Power and Energy of Custom, Exercise, Habit, Education, Conversation, Friendship, Praise, Reprehension, Exhortation, Fame, Laws, Books, Studies,*

dies, and other points of like nature. *These are they* which have the sway and dominion in *Morality*, from these Agents the mind suffereth and is disposed; of these, as of Ingredients, receipts are compounded, which conduce to the conservation and recovery of the Health and good Estate of the Mind, as far as may be performed by Humane Remedies. Of which number we will select one or two whereupon we will a little insist as an example to the rest. We will therefore insinuate a few points touching *Custom* and *Habit*.

Moral Nicom.
lib. 2.

That opinion of *Aristotle* seemeth to me to favour of negligence and a narrow Contemplation, where he asserts—*that those Actions which are natural cannot be changed by custom*; using for example—*that if a stone be thrown a thousand times up, it will not learn to ascend of its own accord: Moreover, that by often seeing or hearing, we do not learn to hear or see the better*: for though this principle be true in some things wherein Nature is Peremptory (the reasons whereof we cannot now stand to discuss) yet it is otherwise in things wherein Nature, according to a *Latitude*, admits *intention* and *remission*. He might see that a strait glove by often drawing on, is made wider; and that a wand by use and continuance is bowed contrary to its natural bent in the growth, and soon after stays in the same posture; that the voice by exercising it becometh louder and stronger; that heat and cold are better endur'd by custom; and many instances of like kind. Which two latter examples have a neerer resemblance and come neerer to the point, than those he there alledgeth. But however this case be determin'd, by how much the more true it is; *that both Virtues and Vices consist in habit*; he ought, by so much the more, to have endeavour'd, to have so prescrib'd rules *how such habits might be acquired, or remov'd*: for there may be many Precepts made of the wise ordering of the *Exercises of the Mind*, no less than of the *Exercises of the Body*; whereof we will recite a few.

§ *The first shall be; that we beware even at first of higher or smaller tasks, than the nature of the business requires, or our leisure or abilities permit*: For if too great a task be impos'd, in a mean diffident nature, you blunt the edge of chearfulness and blast their hopes; in a nature full of Confidence, you breed an opinion whereby a man promiseth to himself more than he is able to perform, which draws on sloth and security; and in both those temperatures, it will come to pass that the experiment doth not satisfy the expectation; which ever discourageth and confounds the mind: but if the Task be too weak and easie, in the summ of proceeding there is a loss and prejudice.

§ *A second shall be; that to the practising of any faculty, whereby a habit may be superinduced, two seasons are chiefly to be observed, the one when the mind is best disposed to a business; the other when it is worst*: that by the one, we may be well forwards on our way; by the latter, we may by a strenuous contention work out the knots and stonds of the mind; which makes middle times to pass with more ease and pleasure.

Moral. Ni-
com. lib. 2.

§ *A third Precept shall be that which Aristotle mentions by the way, which is to bear ever towards the contrary extreme of that whereunto we*
are

are by nature inclin'd, so it be without vice. Like as when we row against the stream; or when we make a crooked wand straight by bending it the contrary way,

§ The fourth Precept is grounded upon that Axiom which is most true. That the mind is brought to any thing with more sweetness and happiness, if that, whereunto we pretend, be not principal in the intention of the Doer; but be overcome, as it were, doing somewhat else; because the instinct of Nature is such a freedom as hates necessity and compulsive commands. Many other rules there are which might profitably be prescribed touching the Direction of Custom: for Custom, if it be wisely and skilfully induced, proves (as it is commonly said) another Nature; but being conducted absurdly and by chance, it is only the Ape of Nature; which imitates nothing to the life, but in a foolish deformity only.

§ So if we should speak of Books and Studies, and of their power and influence upon Manners; are there not divers Precepts, and fruitful Directions appertaining thereunto? Hath not one of the Fathers in great indignation called *Poesse, vinum Demonum*; being indeed it begets many Temptations, Lusts, and vain Opinions? It is not a wise opinion of Aristotle, and worthy to be regarded: That young men are no fit auditors of Moral Philosophy, because the boiling heat of their affections, is not yet settled, nor temper'd with Time and Experience. And to speak truth, doth it not hereof come that those excellent Books and Discourses of ancient Writers (whereby they have perswaded unto vertue most effectually, representing as well her stately Majesty to the eyes of the world, as exposing to Scorn, popular Opinions in disgrace of Vertue, attired, as it were, in their Parasite Coats) are of so little effect towards honesty of Life, and the reformation of corrupt Manners; because they use not to be read and revolv'd by men mature in years and judgement; but are left and confin'd only to Boys and Beginners. But is it not true also, that young men are much less fit Auditors of Policy than Morality, till they have been throughly season'd with Religion; and the knowledge of Manners and Duties; lest their judgements be corrupted and made apt to think, that there are no Moral differences true and solid of things; but that all is to be valued according to utility and fortune. As the Poet saith,

Prosperum & felix scelus virtus vocatur.

Juvenal. Sat.
13.

And again,

Ille crucem pretium sceleris tulit, hic Diadema.

But the Poets seem to speak this Satyrically, and in indignation; be it so, yet many Books of Policy do suppose the same seriously and positively: for so it pleased Machiavel to say, That if Cæsar had been overthrown, he would have been more odious than ever was Cataline;

as

as if there had been no difference but in *fortune* only, between a very fury compos'd of Lust and Blood; and the most excellent spirit (his ambition reserved) in the world. By this we see how necessary it is, for men to drink deeply *Pious and Moral Knowledges*, before they taste *Politick*; for that they who are bred up in the Courts of Princes from tender years, and in affairs of State, commonly never attain an inward and sincere Probity of Manners; how much farther off from honesty, if to this fire of corrupt education there be admistred the fewel of corrupt Books? *Again*, even in Moral instructions themselves, or at least in some of them, is there not a Caution likewise to be given, lest they make men too precise, arrogant and incompatible? according to that of *Cicero*, touching *M. Cato*, *These Divine and excellent qualities which we see, are his own proper endowments, but such as are sometimes deficient in him, are all deriv'd from Teachers, and not from Nature.* There are many other Axioms touching those properties and effects which Studies and Books do instill into the minds of men: for it is true that he saith, *abeunt studia in mores*; which may likewise be affirm'd of those other points touching *Company, Fame, the Laws of our Country*, and the rest, which a little before we recited. But there is a kind of *Culture of the Mind* which seems yet more accurate and elaborate than the rest, and is built upon this ground, *That the minds of all Mortals are at some certain times in a more perfect state; at other times in a more depraved state.* The purpose therefore, and direction of this *Culture* is, that those good seasons may be cherish'd, and the evil crost, and expunged out of the Calender. The fixation of good Times is procur'd by two means, by *vows*, or at least *most constant Resolution* of the Mind, and by *Observances and Exercises*, which are not to be regarded so much in themselves, as because they keep the mind in her devoir and continual obedience. The obliteration of evil Times may be in like manner perfected two ways; by some kind of *Redemption, or expiation of that which is past*; and by a *new course of life*, as it were, *turning over a clean leaf.* But this part seems wholly to appertain to Religion, and justly considering that true and genuine *Moral Philosophy*, as was said, supplies the place of a Hand-maid only to *Divinity*. Wherefore we will conclude this part of the *Culture of the Mind*, with that remedy, which of all other means is the most compendious and summary: And again, the most noble and effectual, to the reducing of the mind to virtue, and the placing of it in a state next to perfection, and this is, *That we make choice of, and propound to our selves, right ends of life and actions, and agreeing to vertue; which yet must be such as may be in a reasonable sort within our compass to attain.* For if these two things be suppos'd, *that the ends of actions be honest and good; and that the resolution of the mind, for the pursuing and obtaining them, be fixt, constant, and true unto such ends*; it will follow that the mind shall forthwith transform and mould it self into all vertues at once. And this indeed is an operation, which resembleth the *work of nature*, whereas other courses, whereof we have spoken, are like the *work of the hand*. For as when a Carver cuts and carves an

an Image, he shapes only that part whereupon he works, and not the rest; as if he be fashioning the Face, the rest of the body is a rude and formless stone still, till such time as he come to it: but contrariwise, when Nature makes a Flower or *Living Creature*, she ingenders and brings forth rudiments of all the parts at one time. So in obtaining vertues by *habit*, while a man practiseth *Temperance*, he doth not profit much to *Fortitude*, and the like; but when we wholly dedicate and devote our selves to good and honest ends; look what vertue soever *such ends* commends and commands our mind unto, we shall find our selves already invested and predisposed with a kind of hability and propension to pursue and express the same. And this may be that *State of Mind*, which is excellently described by *Aristotle*, and expressed with the Character, not of *vertue*, but a kind of *Divinity*, his words are these; *And with Immanity, we may not unaptly cowntre-ballance, that ability which is above humanity; Heroick or Divine Vertue: and a little after, for as Savage Creatures are incapable of Vice or Vertue; so is the Deity: but this state is a thing higher than vertue; that, somewhat else than vice.* Indeed *Plinius Secundus*, from the license of Heathen magniloquence, set forth the vertue of *Trajan*, not as an imitation, but as a pattern too Divine, when he saith, *That men need to make no other prayers to the Gods, but that they would continue as good and as gracious Lords to them, as Trajan had been.* But these are the prophane and unhallowed Airs of Heathens, who apprehend shadows greater than the body: but true Religion, and the Holy Christian Faith, lays hold on substance it self, imprinting upon mens Minds *Charity*, which is most properly called, *The bond of perfection*; because it comprehends and fastens all vertues together. Surely it is elegantly said by *Menander* of *vain Love*, which is but a counterfeit imitation of *Divine Love*; *Amor melior sophistâ levo, ad humanam vitam*; by which words he insinuates, *that good and decent carriage, is better learnt from Love, than from a Sophist, or an inept Tutor*; whom he calls *Left-handed*, because with all his tedious Rules and Precepts, he cannot form a man so dexterously, and with that facility to value himself, and govern himself, as *Love* can do. So certainly, if a mans mind be truly inflamed with the *heat of Charity*, he shall be exalted to a greater degree of *Perfection*, than by all the *Doctrine of Morality*, which, indeed, is but a *Sophist* in comparison of the other. Nay farther, as *Xenophon* observed truly, *That all other affections, though they raise the Mind, yet they distort and disorder it by their extastes and excesses; but only love doth at the same instant, dilate and compose the Mind.* So all other humane excellencies, which we admire; though they advance Nature, yet they are subject to *excess*; only *Charity* admits no excess. So we see the Angels, while they aspired to be like God in Power, prevaricated and fell, *I will ascend above the altitude of the clouds, I will be like the most high.* So man, while he aspired to be like God in Knowledge, digressed and fell: *ye shall be like Gods knowing Good and Evil*: but by aspiring to a similitude of God's *Goodness* or *Love*, neither Man nor Angel ever was endangered, nor shall

Moral. Nicom. lib. 7.

Pancg.

Colof. 3.

De Inſ. Cyri.

Esa. 14.

Gen. 3.

Mat. 5.

shall be endangered. Nay, we are invited to this imitation, *Bless them that curse you, and pray for them that despitefully use you, and persecute you; that you may be the sons of your father which is in Heaven: for he makes his Sun to rise on the Evil, and on the Good; and sends rain upon the just, and upon the unjust.* So in the first Platform of the Divine Nature, the Heathen Religion placeth Gods Attributes thus, *Optimus Maximus*; and sacred Scripture speaks thus, *Misericordia ejus, supra omnia opera ejus.*

Psal. 145.

§ Wherefore we have now concluded this part of *Moral Knowledge* concerning the *Culture and Regiment of the Mind*; wherein if any from a contemplation of the Portions thereof, which we have strictly enumerated, doth judge that our labour is only this, *to Collect and Digest, into an Art or Science, that which hath been pretermitted by other writers, as matters of common sense and experience, and of themselves clear and perspicuous; let him freely enjoy his judgement:* yet in the mean time let him be pleased to remember what we premonisht at first; that our purpose was not to pursue the flourish and beauty of things; but their use and verity. Likewise let him a while ponder in his mind that invention of the Ancient Parable, touching the *two gates of sleep.*

Virg. Æn. 6.

*Sunt geminae somni Porta, quarum altera fertur
Cornea, qua veris facilis datur exitus umbris.
Altera candenti perfecta nitens Elephanto
Sed falsa ad Cælum mittunt insomnia Manes.*

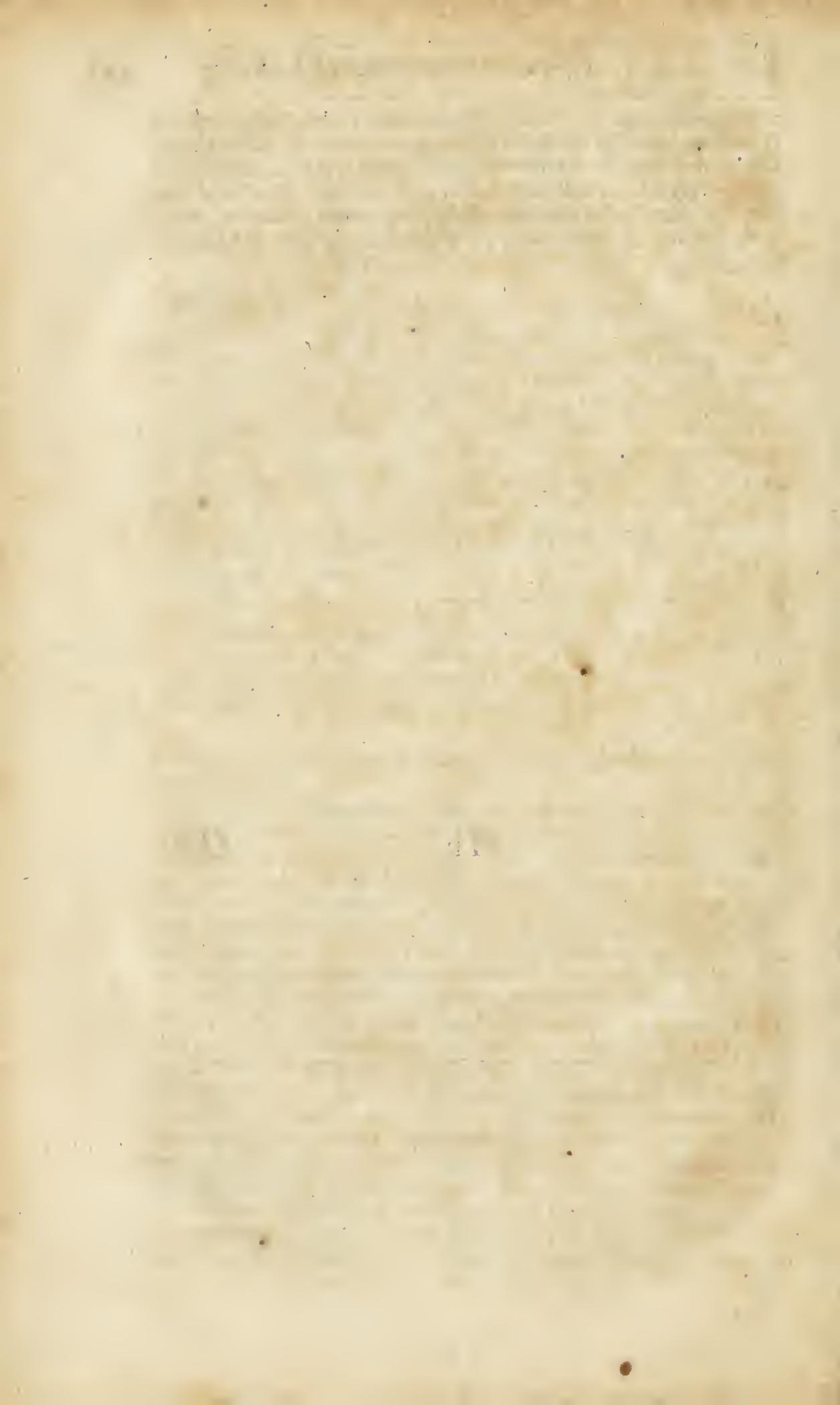
A gate of *Ivory* is indeed very stately, but true Dreams pass through the gate of *Horn.*

IV. By way of suppliment, that observation about *Moral Knowledge*, may be set down, which is, *that there is a kind of relation and conformity between the Good of the Mind, and the Good of the Body.* For as the *Good of the Body* consists, as hath been said, of *Health, Beauty, Strength and Pleasure*: So the *Good of the Mind*, if we consider it according to the Axioms and Precepts of *Moral Knowledge*, we shall perceive tend to this point, *to make the mind sound, and discharg'd from perturbation; beautiful and graced with the ornaments of true decency; strong to all duties of life: Lastly, not stupid, but retaining an active and lively sense of pleasure, and honest recreation.* But these four, as in the body, so in the mind, seldom meet altogether. For it is easie to observe, that many have strength of wit and courage; who yet notwithstanding are infested with perturbations, and whose manners are little season'd with Elegancy and Beauty of Behaviour, in their doings: *Some again, have an Elegancy and Fineness of Carriage, which have neither Soundness of Honesty, nor Substance of Sufficiency in their doings: some have honest Minds, purified from the stain of Guilt, which yet can neither become themselves, nor manage business: Others which perchance are capable of all these three Qualities; but possess a with sullen humour of Stoical sadness,*
and

and stupidity, they practise virtuous Actions, but enjoy neither themselves, nor the the fruit of their good Parts : and if it chance that of these four *two* or *three* sometimes meet, yet a concurrence of all *four* very seldom falls out. And now we have concluded that Principal Member of *Humane Philosophy*, which considers *Man*, as he consists of *Body and Soul*; but yet, as he is *segregate and separate from society*.

H h

THE



THE
 Eighth Book
 OF
 FRANCIS L. VERULAM
 VICOUNT S^t. ALBAN,
 OF THE
 Dignity and Advancement
 OF
 LEARNING.

To the KING.

CHAP. I.

- I. *The Partition of Civil Knowledge into the Knowledge of Conversation; the Knowledge of Negotiation; and the Knowledge of Empire, or of State Government.*



Here is an ancient Relation (*Excellent King*) of a solemn Convention of many Philosophers before the Ambassador of a forreign Prince, and how that every one according to their severall abilities made demonstration of their Wisdom; that so the Ambassador might have matter of report touching the admired wisdom of the Grecians: But amongst these, one there was, as the story goes, that stood still and utter'd nothing in the assembly, inso-much as the Ambassador turning to him should say: *And what is your gift, that I may report it?* To whom the Philosopher, Report (saith he) unto your King, that you found one amongst the Grecians that knew how to hold his peace: and indeed, I had forgotten in this compend of Arts to insert the *Art of silence*; which notwithstanding (because it is *Deficient*) I will teach by mine own Example. For

Plutar. in
Moral.

seeing the order and contexture of matter hath brought me at length to this point; that I must now a little after handle the *Art of Empire*; and being I write to so *Great a King*, which is so perfect a Master in this Science, wherein he hath been trained up even from his infancy; nor can I be altogether unmindful, what place I hold under your Majesty; I thought it would best become me in this point to approve my self unto your Majesty, by *Silence*, rather than by *Writing*. *Cicero* makes mention not only of an *Art*, but of a kind of *Eloquence* found in *Silence*: for after he had commemorated in an *Epistle to Atticus*, many conferences which had interchangeably past between him and another, he writeth thus; *In this place I have borrowed somewhat from your Eloquence, for I have held my peace*. And *Pindar* to whom it is peculiar suddenly to strike, as it were, with a Divine Scepter, the minds of men by rare short sentence, darts forth some such saying as this, *Interdum magis afficiunt non dicta quam dicta*: wherefore I have resolv'd in this part to be *Silent*, or which is next to *Silence*, to be very brief. But before I come to the *Arts of Empire*, some things by way of Preoccupation are to be set down concerning other *Portions of Civil Doctrine*.

Ad Atticum.

Pindar.

Plutar. in M.
Catone:

§ *Civil Science* is conversant about a subject, which of all other is most immers'd in matter, and therefore very difficultly reduced unto *Axioms*: yet there are many circumstances which help this difficulty: for first, *Cato* the Censor was wont to say of his Romans: *That they were like Sheep, a man were better drive a Flock of them, than one of them; for in a Flock, if you could get but some few to go right, you shall have all the rest follow of their own accord*: So in this respect indeed, the *Duty of Morality* is somewhat more difficult than that of *Policy*. Secondly, *Morality* propounds to it self that the Mind be imbued and furnisht with *Internal Goodness*; but *Civil Knowledge* requires no more but *Goodness External* only, for this, as respecting society, sufficeth. Wherefore it often comes to pass that the Government is Good, the Times Bad: for in Sacred Story the saying is often repeated, speaking of Good and Godly Kings, *And yet the People directed not their hearts to the Lord God of their Fathers*; wherefore in this respect also, the parts of *Ethick* are more austere and difficult. Thirdly, *States* have this nature, that like great Engines they are slowly moved, and not without great pains; whence it comes, that they are not so easily put out of frame: *For as in Ægypt* the seven good years upheld the seven bad; so in *States*, the good Government and Laws of the Precedent times cause, that the errors of succeeding times, do not quickly supplant and ruine: But the Decrees and Customs of particular persons, are more suddenly subverted: And this likewise doth charge *Morality*, but easeth *Policy*.

I *Civil Knowledge* hath three parts, according to the three summary Actions of Society; *The Doctrine of Conversation*; *The Doctrine of Negotiation*; and *the Doctrine of Empire or Republicks*. For there are three sorts of Good, which men seek to procure to themselves from civil Society; *Comfort against Solitude*, *Assistance in Business*, and *Protection* against Injuries: and these be three wisdoms distinct one from the other, and often times disjoyn'd;

Wisdoms

Wisdom in Conversation; Wisdom in Negotiation, and Wisdom in Gubernation.

§ *As for Conversation*, certainly it ought not to be affected, but much less despised; seeing a wise moderation thereof, hath both an honour, and grace of Manners in it self; and a powerful influence for the apt manage of Business; as well Publick, as Private. *For as Action in an Orator* is so much respected, (though it be but an outward quality) that it is prefer'd before those other Parts which seem more grave and intrinsick; so *Conversation* and the government thereof, in a man of a Civil Practick life (however it consisteth in outward ceremonies) finds, if not the chiefest, yet certainly a very eminent place. Of what special importment the very *Countenance* is, and the composure thereof, the Poet insinuates where he saith,

Nec vultu destrue verba tuo.

A man may cancel and utterly betray the force of his words, with his *Countenance*. Nay the *Deeds* as well as *Words* may likewise be destroyed by the *Countenance*, if we may believe *Cicero*, who when he would commend to his Brother *Affability* towards the Provincials said, that it did not chiefly consist in this, to give easie access unto his Person, unless likewise he received them courteously even with his *Countenance*; *Nil interest habere ostium apertum, vultum clausum: It is nothing won, to admit men with an open door, and to receive them with a shut and reserved countenance.* So we see *Atticus*, before the first interview between *Cæsar* and *Cicero* the war depending, did diligently and seriously advise *Cicero* by a letter touching the composing and ordering of his *countenance* and *gesture*. And if the government of the *Face* and *Countenance* alone be of such effect, how much more is that of familiar *speech* and other *carriage* appertaining to *Conversation*. And indeed the summ and abridgement of the *Grace* and *Elegancy* of Behaviour, is for most part comprized in this, *that we measure in a just ballance and maintain both our own Honour and the Reputation of others.* The true Model whereof *T. Livius* hath well ascribed (though intended to another purpose) in the Character of a Person, *Leſt* (saith he) *I should seem either arrogant or obnoxious; whereof the one is the humour of a man that forgets the liberty of another; the other of a man that forgets the liberty of himself.* But on the other side if *Urbanity* and outward *Elegancy* of Behaviour be intended too much, they pass into a deformed and counterfeit *Affectation*. *Quid enim deformius quam scenam in vitam transferre. To Act a mans life.* But though they fall not by insensible degrees into that vitious extreme; yet too much time is consumed in these small matters; and the mind by studying them is too much depress'd and broken. And therefore as Tutors and Preceptors use to advise young Students in Universities, too much addicted to keep company; by saying, *Amicos esse fures temporis*: so certainly this same continual intention of the mind upon the comeliness of Behaviour, is a great thief to more solemn Meditations. Again, such as are so exactly accomplisht in *Urbanity*, and seem, as it were, form'd by nature for this quality alone, are commonly of such a disposition,

De Petlt. Consulatus.

Lib XII. Epist ad Att;

Livius.

Ecclef. 11.

as please themselves in this one habit only, and seldom aspire to higher and more solid virtues: whereas on the contrary, those that are conscious to themselves of a Defect this way, seek *Comeliness* by *Reputation*; for where *Reputation* is, almost every thing becometh; but where *that* is not, it must be supplied by *Puntoes* and *Complements*. Again, there is no greater or more frequent impediment of Action than an overcurious observance of *Decency* and of that other ceremony attending on it, which is a too scrupulous *Election of time* and *opportunities*: for *Solomon* saith excellently, *qui observat ventum non seminat, & qui considerat nubes nunquam metet*: We must make opportunity oftner than find it. To conclude, this *comely grace of Behaviour* is, as it were, the Garment of the Mind, and therefore must have the conditions of a Garment: for first, it ought to be such as is in fashion; again, it ought not to be too curious or costly; then it ought to be so shaped as to set forth any good making of the mind, and to supply and hide any deformity; lastly and above all, it ought not to be too strait, or so to restrain the spirit, as to repress and hinder the motion thereof in business. But this part of *Civil knowledge* touching *Conversation*, hath been indeed elegantly handled, nor can it any way be reported as *Deficient*.

CHAP. II.

- I. The Partition of the *Doctrine of Negotiation* into the knowledge of dispersed Occasions. II. And into the *Knowledge of the Advancement of life*. § Examples of the *knowledge of Scatter'd Occasions* from some of *Solomon's Parables*. § Precepts touching the *Advancement of fortune*.

THE knowledge touching *Negotiation*, we will divide into a knowledge concerning *Scatter'd Occasions*; and the Knowledge concerning the *Advancement of Life*; whereof the one comprehends all the variety of *Business*, and is, as it were, the *Secretary* of a *Practick* course of life; the other only selects and suggests such observations as appertain to the *advancing of a mans proper fortune*, which may be to every man as intimate and reserved *Table-Books*, and *Memorials* of their Affairs.

§ But before we descend to the Particular kinds, we will speak something by way of Preface, in general, touching the *knowledge of Negotiation*. The *knowledge of Negotiation* no man hath handled hitherto according to the dignity of the Subject; to the great derogation of Learning, and the Professors of Learning: for from this root springeth that note of *Dulness* which hath defamed the Learned, which is; *That there is no great concurrence between Learning and Practick wisdom*. For, if a man observe it well, of the three *wisdoms* which we have set down to pertain to Civil life, that of *Conversation* is by learned men for the most part despised as a servile thing and an enemy to *Meditation*. As for that *wisdom* concerning *Government*, Learned men

acquit themselves well, when they are called to the manage of Civil Affairs in state; but that is a Promotion which happeneth to few. Concerning the *Wisdom of Business* (whereof we now speak) wherein man's life is most conversant; there be no Books at all written of it except, a handful or two of some few *Civil Advertisements*, that have no proportion to the magnitude of this Subject. For if there were Books extant of this Argument, as of other, I doubt not, but Learned men with mean experience would far excel men of long experience without Learning; and *out-shoot them* (as they say) *in their own Bow*. Neither is there any cause why we should fear lest the Matter of this *Knowledge* should be so various, that it could not fall under Precepts, for it is much narrower than the *Science of Government*, which notwithstanding we see is exactly labour'd, and subdued. Of this kind of *Wisdom*, it seems there have been some Professors amongst the *Romans* in their best and wisest times. For *Cicero* reports that it was in use a little before his time for Senators, that had the name and opinion for wise and experienced men (the *Coruncanii*, *Curii*, *Lælii*, and others) to walk at certain hours in the *Forum*, where they might give access and audience to the Citizens, and might be consulted withall; not only touching *point of Law*, but of all sorts of *Business*; as of the *Marriage of a Daughter*; or of the *bringing up of a Son*; or of a *Purchase*, of a *Bargain*, of an *Accusation*, *Defence*; and every other occasion incident to man's life. By this it plainly appears, that there is a *Wisdom of giving Counsel and Advice* even in Private Business; arising out of an universal insight into the Affairs of the World; which is used indeed upon Particular Causes, but is gathered by general observation of Causes of like nature. For so we see in the Book which *Q. Cicero* writeth unto his Brother, *De Petitione Consulatus*, (being the only Book of Particular Business, that I know written by the Ancients) although it concerned specially an Action then on foot, yet it contains in it many Politick Axioms, which prescribe not only temporary use, but a perpetual direction in the case of Popular Elections. And in this kind nothing is extant which may any way be compar'd with those Aphorisms which *Solomon the King* set forth, of whom the Scriptures testify, *That his Heart was as the Sands of the Sea*: For as the Sands of the Sea do encompass all the utmost bounds of the world; so his wisdom comprehended all matters, as well humane as divine. In these *Aphorisms* you shall clearly discover, besides those precepts which are more divine, many most excellent Civil precepts and advertisements, springing out of the profound secrets of *wisdom*, and flowing over into a large field of variety. Now because we report as *Deficient*, the *Doctrine touching dispersed occasions*, (which is a first portion of the *knowledge of Business*) we will, after our manner, stay a while upon it, and propound an example thereof, taken out of those *Aphorisms*, or *Parables of Solomon*. Neither is there, in our judgement, any cause of just reprehension, for that we draw from writers of sacred Scripture, something to a Politicall sence; for I am verily of opinion, that if those *Commentaries of the same Solomon* were now extant concerning Nature (wherein he hath written of all *Vegetables*, *From the Moss upon the wall, to the Cedar of Libanus*; and of living creatures)

Cicero's

Q. Cicero de
Petitione
Consul.

1. Reg. iv.

1. Reg. xv.

it were not unlawful to expound them according to a natural sence; the same liberty we may take in the *Politicks*.

*
AMANUEN-
SIS VITÆ,
sive de occasi-
onibus Spar-
sis.

An Example of a Portion of the Doctrine concern-
ing Dispersed Occasions, from some
Parables of Solomon.

THE PARABLE.

Prov. xv.

I. *A soft Answer appeaseth Wrath.*

THE EXPLICATION.

If the wrath of a Prince or of a great Person be kindled against thee; and it be now thy turn to speak, *Solomon* gives in precept two points; one is, *that an answer be made*; the other, *that the same be soft*: The First contains three precepts; First *that you beware of a sad, and sullen silence*: for that either charges the fault wholly upon your self, as if you had nothing to say for your self; or closely appeacheth your Master of some injustice, as if his ears were not open to a just Defence. Secondly *that you beware of delaying and putting off a Business*, and that you crave not a longer day to give in your defence: for this procrastination, either insinuates the same prejudice the former did, (which is that your Lord and Master is led away with too much passion and partiality) and plainly betrays, that you are in devising some cunning and counterfeit Apology, seeing you have no present answer ready. Wherefore it is ever the best course to say something instantly in your own defence, according as the occasion of the present business shall administer. Thirdly *that by all means, an answer be made*; an answer (I say) not a meer confession or a meer submission, but yet not without some sprinklings of an Apology and excuse let fall here and there; nor is it safe to bear your self otherwise, unless you have to deal with very generous and noble dispositions; which are very rare. It follows in the second place, that the answer made be soft and temperate; and not harsh and peremptory.

THE PARABLE.

Prov. xvii.

II. *A wise Servant shall have command over a reproachful Son, and shall divide the Inheritance among the brethren.*

The

THE EXPLICATION.

IN all troubled and disagreeing Families, there ever ariseth up some servant, or gentle friend, powerful with both sides; which may moderate, and compound the differences of the Family; to whom, in that respect, the whole House, and the Master himself are engag'd and beholding. *This Servant*, if he aim only, at his own ends, cherishes and aggravates the Divisions of a Family; but if he be sincerely faithful, and upright, certainly he deserves much; so, as to be reckoned as one of the brethren; or at least, to receive a Fiduciarly Administration of the Inheritance.

THE PARABLE.

III. *If a wise man contests with a Fool, whether he be in anger, or in jest, there is no quiet.* Prov. xxix.

THE EXPLICATION.

WE are often admonisht to *avoid unequal commerce*; in this sense, *not to contend with our Betters*: but it is a no less profitable instruction, which *Solomon* here sets down, *Not to undertake a worthless person*; for such a business is usually concluded upon terms of disadvantage; for to overcome is no victory, but to be conquer'd a foul disgrace: and it is all one in the heat of this engagement, whether we deal by way of jesting, or by way of disdain and scorn; for howsoever we change Copy, we are embas'd and made the lighter thereby; nor shall we handsomely come off with credit. *But* the worst inconvenience of all is, when the Person with whom we contend (as *Solomon* speaks) hath somewhat of the *Fool* in him; that is, if he be witless and wilful; have some heart, no brain.

THE PARABLE.

IV. *Lend not an Ear to all words that are spoken, lest perchance thou hearest thy servant curse thee.* Eccles. viii.

THE EXPLICATION.

IT is a matter almost beyond belief, what disturbance is created by *unprofitable curiosity*, about those things which concern our personal interest: that is, when we make a too scrupulous enquiry after such secrets; which once disclosed and found out, do but cause molestation of mind, and nothing conduce to the advancing of our designs.

designs. For first there follows vexation and disquietness of Mind; being that all humane affairs are full of faithfulness and ingratitude; so as if there could be procured some enchanted glass, wherein we might behold the hatred, and whatsoever malice is any way raised up against us; it were better for us that such a Glass, were forthwith thrown away and broken. For slanders of this nature, are like the impotent murmures of Leaves on Trees, and in short time vanish. Secondly, this Curiosity fills the mind with ungrounded jealousies, which is a capital enemy to Counsels, and renders them inconstant and involv'd. Thirdly, the same curiosity doth ostentimes fix evils, which of themselves would fly away. For it is a dangerous matter for to provoke mens consciences, who if they think themselves undiscover'd are easily chang'd to the better; but if once they perceive themselves dismaskt, they drive out one mischief with an other. Wherefore it was deservedly judg'd, a point of great wisdom in Pompeius Magnus, that he instantly burnt all Sertorius's papers unperus'd by himself; or permitted to be so by others.

Plutar. in
Pomp.

THE PARABLE.

PROV. VI.

V. *Thy Poverty shall come as a Traveller, and thy Want as an armed Man.*

THE EXPLICATION.

IN this Parable, it is elegantly described how the shipwrack of Fortunes falls upon Prodigals, and on such as are careless of their Estates; for Debt and Diminution of Stock comes upon them at first by insensible degrees, with soft-silent paces, like a Traveller, and is hardly perceived; but soon after necessity invades him like an armed man, that is, with so strong and potent an arm, as there is no more resistance to be made; so it was said by the Ancients, that of all things necessity was the strongest. Wherefore we must prevent the Traveller; and be well provided against the armed Man.

THE PARABLE.

PROV. IX.

VI. *He that instructs a scorner, procures to himself a reproach; and he that reprehends a wicked man, procures to himself a stain.*

THE EXPLICATION.

Mat. 7.

THIS Parable agrees with our Saviours Precept, *That we cast not our Pearls before swine.* In this Parable the Actions of Instruction, and of Reprehension are distinguisht; as also the Actions of a scorner

scorner, and of a *wicked person*. Lastly that which is retaliated, is differenced. For in the former part, lost labour is return'd; in the latter, a stain and dishonour is repaid. For when a man teacheth and instructeth a *scorner*, first, the time thus employed is cast away; and then others also deride his pains, as a fruitless design, and a labour ill placed: Last of all, the scorner himself despiseth the knowledge, which he hath learned. But the matter is transacted with greater danger in the *reprehension of the wicked*; because a wicked nature, not only gives no ear to advice, but turns head against his *Reprebender*, now made odious unto him; whom he either wounds presently with contumelies; or traduces afterwards to others.

THE PARABLE.

VII. *A wise Son is the gladness of his Father; but* PROV. x.
a foolish Son is the sadness of his Mother.

THE EXPLICATION.

THe joys and griefs domestical of Father and Mother touching their Children, are here distinguished: for a wise and well-govern'd Son, is chiefly a comfort, to the Father, who knows the value of virtue, better than the Mother, and therefore more rejoiceth at the towardliness of his Son inclinable to goodness: yea, and it may be his education of him, that he hath brought him up so well; and implanted in his tender years the Civility of manners, by precepts and example, is a joy unto him. *On the other side*, the Mother is more griev'd, and discomforted at the calamity of a Son; both because the affection of a Mother is more soft and tender; as also perchance, being conscious of her too much indulgence, she hath tainted and corrupted his tender years.

THE PARABLE.

VIII. *The memory of the Just is blest; but the name* PROV. x.
of the wicked shall putrifie.

THE EXPLICATION.

Here is distinguished the *Fame* of good men and of evil, such as commonly falls out after Death: for the *Name* of good men, after envy is extinguish'd, (which cropt the blossom of their *Fame*, while they were alive) presently shoots up and flourisheth; and their *Praises* daily encrease in strength and vigor: but for wicked men (though their *Fame* through the partial favour of Friends, and of men of their

their own faction last for a short time) a detestation of their Name springs up, and at last their transient glory exhales in infamy, and expires in a filthy and noisom odour.

THE PARABLE.

Prov. xi.

IX. *He that troubles his own house shall inherit the wind.*

THE EXPLICATION.

De Pet. Consul.

A Very profitable admonition touching *Discord and Domestick breaches*. Many promise to themselves great matters, by the *dis-sensions of Wives*; or the *Dis-inheriting of Sons*; or the *often changing of Servants*; as if the *Tranquillity of mind*; or the *administration of their affairs* were by this means advanced, and should become more prosperous unto them. But commonly *their hopes turn to wind*; for those alterations, for most part, succeed ill, and those *Perturbers of their own house* oftentimes meet with many vexations, and ingratitude from *them*, whom (passing by others) they adopted and loved: Nay, by this means they draw upon their Persons ill Reports, and doubtful rumours. For it is well noted of *Cicero*, *Omnes famam à Domesticis emanare*. Both these evils *Solomon* excellently expresses by the *inheritance of Winds*: For the *Frustrating of Expectation*, and the *raising of Rumours*, are rightly compared to *Winds*.

THE PARABLE.

Eccles. vii.

X. *Better is the end of a Speech, than the beginning thereof.*

THE EXPLICATION.

THIS Parable taxeth, and reforms a frequent error committed; not only by them which chiefly *study words*; but even by the more wise and grave. The error is this, *that men are more solicitous of the ingress and entrance of their speech; than of the close and issue: and more exactly meditate the Exordiums and Prefaces; than the conclusions of Speeches*. But they should neither neglect those, and yet have these about them, as the more material parts, ready prepar'd and digested; considering with themselves, and, so far as may be, fore-casting in their minds, what may be the issue of speech and conference at last; and businesses thereby may be promoted and matured. Yet this is not all; for you must not only *study Epilogues, and conclusions of Speeches, which may be pertinent to business; but also regard must be taken of such Speeches, as may aptly and pleasantly be cast in, at the very instant of your departure, although they have no reference at all to the business in hand*. I knew two Counsellors,
Personages

Personages of high rank, and wise men; and on whom the charge of State-affairs did then principally depend; whose common, and to them, peculiar custom it was, that so often as they were to negotiate with their Princes about their own affairs; never to close their conference with any matter referring to that business; but ever seek diversions, either by way of jest; or by somewhat that was delightful to hear; and so, as the Adages render it, *wash over at the conclusion of all, their Sea-water discourses, with fresh fountain water.* And this usage was one of their chief Arts.

THE PARABLE

XI. *As dead Flies cause the best oylment to send* Ecclesi. 10.
forth an ill Odour; so doth a little folly him that is in
reputation for wisdom and honour.

THE EXPLICATION.

THe case of Men remarkable for eminent gifts, is very unhappy and miserable (as the Parable excellently notes,) because their errors, be they never so small find no remission. *But as in a pure Diamond every least grain, or little cloud strikes the eye, and affects it with a kind of trouble; which upon a more gross Diamond would hardly be discerned: even so in men of eminent parts, the least infirmities are presently spied, talked of, and more deeply censur'd; which in men of more mean and obscure gifts, and rank, would either altogether pass without notice, or easily procure pardon. Therefore a little Folly in a very wise man; and a small offence in a very honest man; and a slight indecency of manners, in a man of Courtly and Elegant behaviour; much derogates from their fame and reputation.* So that it is not the worst course for eminent persons, to mingle some absurdities (so it may be done without guilt) in their Actions; that they may retain a kind of liberty to themselves, and confound the characters of smaller defects;

THE PARABLE.

XII. *Scornful men insnare a City, but wise men divert Wrath.* Prov. xxix.

THE EXPLICATION.

IT may seem strange, that Solomon in the description of men made, as it were, and by nature fram'd to the ruine and destruction of a state, hath chosen the character; *not of a proud and insolent man; not of a tyrannical and cruel nature, not of a rash and violent man;*

not of an impious and wicked person; not of a seditious and turbulent spirit; not of an incontinent and sensual inclination; not of a foolish and unhabile Person; but of a Scornner. But this is a judgement worthy the wisdom of that King, who best knew the grounds of the conservation, or eversion of a State. For there is not commonly a like Plague to Kingdoms and Common-wealths, than if Counsellors of Princes, or Senators, and such as sit at the helm of Government, are by nature *Scornners*. For such persons, that they may win the reputation of undanted States-men, do ever extenuate the greatness of dangers, and insult over those that value dangers, according to the true weight; as timorous and faint-hearted natures. They *scoff* at all mature delays, and meditated debates of matters by consultation, and deliberation; as a thing too much tasting of an oratory-vein; and full of tediousness; and nothing conducing to the sum and issues of Business. *As for Fame*, at which the counsels of Princes should especially level, they contemn it, *as the spirit of the vulgar*, and a thing will be quickly blown over. *The Power and Authority of Laws*, they respect no more, than as cobwebs, which should not insnare matters of greater consequence: *Counsels and Precautions*, foreseeing events a far off, they reject, as meer dreams and melancholy apprehensions: *men seriously wise*, and well seen in the world, and of great resolution and counsel, they defame with gibes and jests: *in a word*, they do at once prejudice and weaken the whole foundation of Civil Government; which is the more to be looked into, because the Action is performed by secret fraud, and not open force; and is a practice not so suspected, as it demerits.

THE PARABLE.

Prov. XXIX.

XIII. *A Prince that lends a willing ear to lies, his servants are all wicked.*

THE EXPLICATION.

WHen a Prince, is of such a temper, as to lend an easie and credulous ear, without due examination, to Detractors and Sycophants, there breaths a pestilential Air from the Kings side; which corrupts and infects all his servants. Some feel out the fears and jealousies of a Prince; and aggravate the same with feign'd reports. Others awake the furies of envy, especially against the best deserving in the state: Others seek to wash away their own guilt, and the stains of a foul conscience, by defaming others: Others give sail to the Honours and wishes of their friends, by traducing, and debasing the merit of their competitors: Others compose Fabulous enterludes against their enemies, and concurrents, as if they were upon the stage; and infinite suchlike. And these are the Arts of such servants to Princes, as are of a vile and base nature. But they that are of a more honest disposition, and better civiliz'd, when they perceive their

their innocence to be no safe sanctuary (in that their Prince knows not how to distinguish between truth and falshood) they put off moral honesty, and gather in the Court-winds; and are therewith carried about in a servile manner. For as *Tacitus* saith of *Claudius*. *There is no safety with that Prince, into whose head all things are conveyed, as it were, by infusion and direction from others.* And *Commines* very well, *It is better to be servant to a Prince, whose jealousies have no end, than to a Prince, whose Credulity hath no mean.*

THE PARABLE.

XIV. *A Just man is merciful to the life of his Beast; PROV. XII.
but the mercies of the wicked are cruel.*

THE EXPLICATION.

HERE is implanted in man by nature, a noble and excellent affection of *Piety and Compassion*, which extends it self even to brute creatures, that are by divine ordination subject to his command: and this *Compassion* hath some Analogy with that of a Prince towards his subjects. Nay farther, it is most certain, that the more noble the mind is, the more compassionate it is; for contracted and degenerate minds think these things nothing to pertain to them; but the Mind, which is a nobler portion of the world, is affected in the gross out of community. Wherefore we see that there were under the old Law, many Precepts, not so merely *Ceremonial*, as *Institutions of Mercy*; such as was that of *not eating flesh with the blood thereof*, and the like: even in the sect of the *Effeans* and *Pythagoreans*, they altogether abstain'd from *eating Flesh*; which to this day is observed by an inviolate superstition, by many of the Eastern people under the *Mogol*. Nay the Turks, (both by Descent and Discipline a cruel and bloody Nation) yet bestow alms upon brute Creatures; and cannot endure to see the vexation and torture of any live thing. But lest, what we have said, should perchance seem to maintain all kinds of *Mercy*; *Solomon* upon sound advice annexeth, *That the mercies of the wicked are cruel*: These *Mercies*, are, when lewd and wicked persons are spar'd from being cut off by the sword of justice; this kind of *Mercy* is more *Cruel*, than *Cruelty* it self: for *Cruelty* is extended in practice on particulars; but this kind of *Mercy*, by a grant of impunity, arms and suborns the whole band of impious men against the innocent.

THE PARABLE.

Prov. xxix.

XV. *A Fool utters all his mind; but a wise man reserves somewhat for hereafter.*

THE EXPLICATION.

THe Parable (it seems) especially corrects; *not the futility* of vain Persons, which easily utter, as well what may be spoken, as what should be secreted: *not the bold roving language* of such as without all discretion and judgement fly upon all men and matters: *Not Garrulity*, whereby they fill others even to a surfeit: *but another vice*, more close and retired; namely *the Government of speech*, of all adventures the least prudent and politick, which is, *when a man so manages his speech in private conference, as whatsoever is in his mind, which he conceives any way pertinent to the purpose and matter in hand, out it must at once, as it were, in one breath, and in a set continued discourse:* this is that which doth much prejudice Business. *For first, a discontinued speech*, broken off by interlocutions, and intill'd by parts, penetrates deeper, than a *setled continued speech*; because that in a continued Discourse, the weight of Matters is not precisely and distinctly taken, nor by some convenient rests suffer'd to fix; but Reason drives out Reason before it be fully setled in the Comprehension of the Hearers. *Secondly* there is no man of so powerful and happy a Delivery of himself, as at the first onset and encounter of his speech, he is able so to strike him dumb and speechless, with whom he discourseth; but that the other will make some interchangeable reply, and peradventure object something, and then it may fall out, that what should have been reserv'd for refutation and replication, by this unadvised anticipation being disclosed and tasted before-hand, looseth its strength and grace. *Thirdly* if a man discharge not all at once what might be said, but deliver himself by *Parcels*, now one thing, anon casting in another, he shall gather from the looks and answers of him with whom he discourseth, how every particular Passage affects him, and in what sort they find acceptation; so as what is yet remaining to be spoken, he may with greater Caution either select, or silence.

THE PARABLE.

Eccles. i.

XVI. *If the displeasure of a Great Man rise up against thee, forsake not thy Place; for pliant demeanure pacifies great Offences.*

THE EXPLICATION.

THe Parable gives in Precept, how a man ought to demean himself, having incurr'd the wrath and displeasure of his Prince: The Precept hath two branches. First *that he relinquish not his place;* Secondly, *that with caution and diligence he attend the Cure, as in case of some dangerous disease.* For men are wont after they perceive their Princes displeasure against them, to retire themselves from the execution of their charge and office; partly out of an impatience of disgrace; partly lest they should revive the wound by being in the Presence; partly that Princes may see their sorrow and humility; nay sometimes to resign up the Places and Dignities they held, into the hands of the Prince. But *Solomon* censures this way of Cure, as prejudicious and hurtful; and that upon a very good ground. For first *this course doth too much noise abroad the disgrace it self;* so as enemies and enviers become more confident to hurt, and friends more fearful to help him. Secondly *it comes to pass that the wrath of the Prince, which perchance, if it had not been publisht, would have died of it self, is now become more fixt;* and having once made way to his ruine, is carried on to his utter subversion. Lastly, *this retiring tastes somewhat of a malignant humour, and of one fallen out with the times;* which cumulates the evil of Indignation, to the evil of suspicion: Now the precepts for cure are these. First, *above all things let him take heed that he seem not insensible, or not so affected, as in duty he ought to be, for the Prince's displeasure, through a stupidity or stubbornness of mind:* that is, that he compose his countenance, not to a fullen and contumacious sadness; but to a grave and modest pensiveness; and in all matters of imployment, that he shew himself less pleasant, and chearful than he was wont to be; and it will promote his case to use the assistance and mediation of some friend, unto the Prince, which may seasonably insinuate, with what feeling grief he is inwardly afflicted. Secondly *let him carefully avoid all, even the least occasions whereby the matter, that gave the first cause to the indignation, might be reviv'd;* or the Prince take occasion to be again displeas'd with him, or to rebuke him for any thing, before others. Thirdly, *let him with all diligence seek out all occasions wherein his service may be acceptable to his Prince;* that he may shew both a prompt affection to redeem his fore-past offence; and that his Prince may understand what a good servant he may chance to be deprived of, if he thus cast him off. Fourthly, *that by a wise art of Policy, he either lay the fault it self upon others; or insinuate, that it was committed with no ill intention; or make remonstrance of their Malice, who accus'd him to the King, and aggravated the matter above demerit.* Last of all, *let him be every way circumspect and intent upon the Cure.*

THE PARABLE.

XVII. *The First in his own cause is Just; than comes the other Party and enquires into him.* Prov. xviii.

THE EXPLICATION.

THe first information in any cause, if it a little fix it self in the mind of the Judge, takes deep root, and wholly seasons and prepossesseth it; so as it can hardly be taken out, unless some manifest fallhood be found in the matter of Information; or some cunning dealing, in exhibiting and laying open the same. For a bare and simple defence, though it be just and more weighty, hardly compensates the prejudice of the first information; or is of force of it self to reduce the scales of Justice, once sway'd down, to an equal weight. *Wherefore* it is the safest course both for the Judge, that nothing touching the proofs and merit of the cause, be intimated before-hand until both parties be heard together; and the best for the Defendant, if he perceive the Judge preoccupied; to labour principally in this (so far as the quality of the cause will admit) to discover some cunning shift and fraudulent dealing practised by the adverse party to the abuse of the Judge.

Prov. XXIX.

THE PARABLE.

XVIII. *He that delicately brings up his servant from a child, shall find him contumacious in the end.*

THE EXPLICATION.

Princes and Masters, from the Counsel of Solomon, must keep a mean in the dispensation of their Grace and Favour towards Servants. The mean is three-fold; First that Servants be promoted by degrees and not by saults. Secondly, that they be now and then accustomed to repulses: Thirdly, (which Machiavel well adviseth) that they have ever in sight before them something whitherto they may farther aspire. For unless these courses be taken in the raising of servants, Princes shall bear away from their servants, instead of a thankful acknowledgement and dutiful observances, nothing but disrespect and contumacy: for, from sudden promotion ariseth insolency; from a continued achievement of their desires, an impatience of Repulse: if the accomplishment of wishes be wanting; alacrity and industry will likewise be wanting.

Machia. Discorso sopra. Liv.

THE PARABLE.

Prov. XXII.

XIX. *See'st thou a man of Dispatch in his Business; he shall stand before Kings, he shall not be ranked amongst mean men.*

THE EXPLICATION.

AMongst the qualities which Princes do chiefly respect and require in the choice of their servants, *celerity and alacrity in the Dispatch of Business, is above all the rest, most acceptable.* Men of profound *Wisdom* are suspected by Kings, as men too speculative and penetrating, and such as are able by the strength of wit, as with an engine, to turn and wind their Masters, beyond their comprehension and against their inclination. *Popular natures* are spighted as those that stand in the light of Kings, and draw the eyes of the people upon themselves. *Men of courage,* are commonly taken for turbulent spirits, and daring, more than is meet. *Honest men* and of an impartial upright conversation, are esteemed too stiff and Stoical; nor so pliable as they should be to the whole pleasure of those on whom they depend. To conclude, there is not any other good quality, which presents not some shadow, wherewith the minds of Kings may not be offended; *only quickness of Dispatch in the execution of commands, hath nothing in it which may not please.* Again, the motions of the minds of Kings are swift and impatient of delay; for they think they can do all things; only this is wanting, *that it be done out of hand;* wherefore above all other qualities, *celerity is to them most acceptable.*

THE PARABLE.

XX. *I saw all the living which walk under the sun, with the succeeding young Prince, that shall rise up in his stead.* Ecclef. iv.

THE EXPLICATION.

THe parable notes the vanity of men who are wont to press and flock about the designed successors of Princes: The root of this vanity is that Frenzie, implanted by nature in the minds of men, which is, that they too extremely affect their own projected hopes. *For the man is rarely found that is not more delighted with the contemplation of his future Hopes, than with the fruition of what he possesseth.* So further, *Novelty is pleasing to mans nature, and earnestly desired.* Now in a successor to a Prince these two concur, *Hope and Novity.* The Parable expresseth the same which was long ago utter'd first by *Pompeius* to *Sylla*, after by *Tiberias* touching *Macro*; *Plures adorare solem Orientem quam Occidentem.* Yet notwithstanding Princes in present possession, are not much mov'd with this fond humour; nor make any great matter of it, as neither *Sylla* nor *Tiberins* did, but rather smile at the levity of men, and do not stand to fight with *Dreams*; for *Hope* (as he said) *is but the Dream of a man awake.*

Tacit. An-
nal. 6.
Plutar. in
Pomp.

THE PARABLE.

Ecclef. ix.

XXI. *There was a little City, and mann'd but by a few; and there was a mighty King that drew his army to it, and erected bulwarks against it, and intrench'd it round. Now there was found within the walls a poor wise man, and he by his wisdom rais'd the siege, but none remembered that same poor man.*

THE EXPLICATION.

Discorso sopra Liv. Lib. 1.

The Parable describeth the depraved and malignant nature of Men: In extremity and straits they commonly flie for sanctuary to men of wisdom and power, whom before they dispis'd; but so soon as the storm is gone, they become unthankful creatures to their conservers. *Machiavel* not without reason propounds a Question, *whether should be more ingrateful to well deserving Persons, the Prince or the People?* But in the mean time, he taxeth them both of Ingratitude. Notwithstanding, this vile dealing ariseth not from the ingratitude of the Prince or People alone; but oft-times there is added to these *the envy of the Nobility*, who in secret repine at the event, though happy and prosperous; because it proceeded not from themselves; wherefore they extenuate the merit of the Act, and depress the Author.

THE PARABLE.

Prov. 15.

XXII. *The way of the slothful is a Hedge of Thorns.*

THE EXPLICATION.

The Parable expresseth most elegantly, *that sloth proves laborious in the end*: For a diligent and sedulous preparation effects this, that the foot doth not strike it self against any impediment, but that the way is levell'd before it be gone. But he that is slothful and puts off all to the last point of Execution, it must needs follow, that continually, and at every step he passes, as it were, through Briars and Brambles, which ever and anon entangle and detain him. The same observation may be made upon the governing of a Family, wherein if there be a care and providence taken, all goes on cheerfully, and with a willing alacrity, without noise or tumult: but if these fore-casts be wanting, when some greater occasions unexpectedly

ly fall out, all matters throng in to be dispatched at once; the servants brawl; the whole house rings.

THE PARABLE.

XXIII. *He that respects Persons in judgement doth not well; for that man will forsake the truth even for a piece of Bread.* Prov. xxviii.

THE EXPLICATION.

THE Parable most wisely noteth that in a Judge, *Facility of Deportment is more pernicious than the corruption of Bribes*: for all persons do not give Bribes; but there is hardly any cause wherein somewhat may not be found, that may incline the mind of the Judge, if *Respect of Persons* lead him. For one shall be respected as a Country-man; another as an ill-tongu'd man; another as a Rich man; another as a Favourite; another as commended by a Friend; and to conclude, all is full of iniquity, where *Respect of Persons bears rule*; and for a very slight matter, as it were, *for a piece of Bread*, Judgement is perverted.

THE PARABLE.

XXIV. *A poor man that by extortion oppresseth the poor, is like a land-floud that causes famine.* Prov. xxviii.

THE EXPLICATION.

THIS Parable was by the Ancients exprest and shadowed forth, under the Fable of the *two Horse-leeches*, the Full and the Hungry: for *Oppression coming from the Poor and necessitous persons, is far more heavy than the Oppression caused by the Full and Rich; because it is such as seeks out all Arts of Exaction, and all Angles for Money*. This kind of Oppression was wont also to be resembled to *sponges*, which being dry, suck in strongly; not so, being moist. The Parable comprehends in it a fruitful Instruction, both to Princes, that they commit not the government of Provinces, or offices of charge to indigent and indebted persons; as also to people that they suffer not their Kings to be distressed with too much want.

THE PARABLE.

PROV. XXV.

XXV. *A just man falling before the wicked, is a troubled fountain, and a corrupted spring.*

THE EXPLICATION.

THE Parable gives it in Precept, that States and Republicks must above all things beware of an unjust and infamous sentence, in any cause of grave importance, and exemplar in the face of the world; specially where the guilty is not quitted, but the innocent is condemned. For Injuries ravaging among private Persons, do indeed trouble, and pollute the waters of Justice, yet as in the smaller streams; but unjust Judgements, such as we have spoken of, from which examples are derived, infect and distain the very Fountains of Justice: for when the Courts of Justice side with Injustice, the state of things is turned, as into a publick Robbery, and it manifestly comes to pass, *ut Homo Homini sit Lupus.*

THE PARABLE

PROV. XXII.

XXVI. *Make no friendship with any angry man; nor walk thou with a furious man.*

THE EXPLICATION.

BY how much the more devoutly the Laws of Friendship amongst good men, are to be kept and observed, by so much the more it stands us upon to use all Caution, even at first in a prudent election of Friends. In like manner the disposition and humours of Friends, so far as concerns our personal interest, should by all means be dispensed withall: but when they impose a necessity upon us, what quality of persons we must put on, and sustain; it is a very hard case, and an unreasonable condition of Friendship. Wherefore according to Solomon's Precept, it principally conduceth to Peace, and Safety in the course of this world, that we intermingle not our affairs with Choleric natures, and such as easily provoke and undertake Quarrels and Debates; for such kind of Friends will daily espouse us to Factions and Contentions; that we must of necessity be forced to break off all terms of Friendship; or else be wanting to our own personal safety.

THE PARABLE.

XXVII. *He that conceals a fault seeks friendship ;* PROV. XVII.
but he that repeats a matter , separates united
friends.

THE EXPLICATION.

THE way to arbitrate differences, and to reconcile affections is of two sorts. *The one begins by an Amnesty, and passing over that which is past. The other, from a Repetition of wrongs, interlacing Apologies and Excusations.* For I remember the speech of a very wise Person, and a great States-man, which was to this effect ; *He that deals about a Treaty of Peace, without any recapitulation of the terms of Difference, and falling out, he rather deludes mens minds with the sweetness of an Agreement, than compounds the differences, by equity and moderation of Right. But Solomon, a wiser man than he, is of a contrary opinon, approves Amnesty, and prohibites Repetition, for in Repetition, there are these inconveniences, for that it is, as it were, unguis in ulcere, the nail in the ulcer ; as also, there is a danger of breeding a new Quarrel, for the Parties at difference will never accord upon the terms of their falling out. And lastly, for that in the issue, it brings the matter to Apologies : but both the one and the other Party, would seem rather to remit an offence, than to admit of an excusation.*

THE PARABLE.

XXVIII. *In every good work there shall be abundance ;* PROV. XIV.
but where words do abound, there commonly is want.

THE EXPLICATION.

IN this Parable Solomon separates the the fruit of the Labour of the Tongue, and of the Labour of the Hands ; as if Wealth were the Revenues of the one, want the Revenues of the other. For it commonly comes to pass, that they that talk much, boast many things, and promise great matters ; receive no emolument from the things whereof they discourse : nay, rather such natures for most part are no way industrious, and diligent at work ; but only feed and fill themselves with words, as with wind. Certainly, as saith the Poet,

— *Qui silet est firmus* —

for he that is conscious to himself of proficiency in his indeavours, applauds himself inwardly, and holds his peace; but on the contrary, he that is guilty to himself of hunting after vain glory, talks many things, and reports wonders to others.

THE PARABLE.

PROV. XXVII. **XXIX.** *Open Reprehension is better than secret Affection.*

THE EXPLICATION.

THE Parable reprehends the soft nature of Friends, which will not use the priviledge of friendship, in admonishing their Friends with freedom and confidence, as well of their errors as of their dangers. *For what shall I do? (will such a tender hearted friend say) or which way shall I turn my self? I love him as dearly as any man can do; and if any misfortune should befall him, I could willing impawn my own person for his redemption; but I know his disposition, if I deal freely with him, I shall offend him, at least make him sad, and yet do no good; and I shall sooner estrange him from my friendship, than reclaim him, or withdraw him from those courses, which he hath fixt and resolved upon in his mind.* Such a friend as this, Solomon here reprehends, as weak and worthless; and that a man may reap more profit from a manifest Enemy, than from such an effeminate Friend: for he may perchance hear that by way of reproach from an Enemy, which through too much indulgence was but faintly whisper'd by a friend.

THE PARABLE.

XXX. *A wise man is wary of his ways; a cunning Fool seeks evasions.*

THE EXPLICATION.

THERE be two sorts of wisdom; the one true and sound, the other counterfeit and false, which Solomon doubts not to entitle by the name of Folly. He that applies himself to the former, takes heed to his way and footing, fore-seeing dangers, and studying remedies; using the assistance of good men, muniting himself against the invasions of the wicked; wary in his entrance and engagement upon a business, not unprepar'd of a retreat, and how to come off; attent upon advantages, couragious against encounters; with infinite other circumstances, which respect the government of his ways and actions. But that other kind wisdom is altogether made up of fallacies and cunning devices, and wholly relies upon circumventing of others, and casting them according to the form of their own mould. This wisdom the Parable deservedly rejects, not only as Wicked, but also as foolish. For first it is not in the number of those things, which are in our own power; nor is it

it directed by any constant Rule; but new stratagems must every day be contrived, the old failing and growing out of use. *Secondly*, he that is once attained with the fame and opinion of a *cunning crafty Companion*, hath deprived himself of a principal Instrument for the manage of his affairs, and a practical life, that is, *Trust*; and so he shall find by experience all things to go *Cross* to his desires. *To conclude*, these Arts and Shifts, howsoever they promise fair, and much please such as practise them; yet are they many times frustrated. Which *Tacitus* hath well observed, *Consilia Callida & audacia, expectatione lata; tractatu dura; eventu tristia.* Tacit.

THE PARABLE.

XXXI. *Be not too precisely Righteous; nor make thy self too excessively wise; why shouldst thou unseasonably sacrifice thy safety?* EccI. vi. 3.

THE EXPLICATION.

T Here are Times (saith *Tacitus*) wherein too great vertues are exposed to certain ruine. And this fate befalls men eminent for Vertue or Justice, sometimes suddenly, sometimes fore-seen a far off: and if these excellent parts be seconded by the access of *wisdom*, that is, that they are wary and watchful over their own safety, then they gain thus much, that their ruine comes suddenly, altogether by secret and obscure counsels; whereby both envy may be avoided, and destruction assail them unprovided. As for that *Nimium*, which is set down in the Parable, (in as much as they are not the words of some *Periander*, but of *Solomon*, who now and then notes the evils in man's life, but never commands them) it must be understood, not of vertue it self, in which there is no *Nimium* or excessive extremity, but of a vain and invidious Affectation and Ostentation thereof. A point somewhat resembling this, *Tacitus* insinuates in a passage touching *Lepidus*, setting it down as a Miracle, that he had never been the Author of any servile sentence, and yet had stood safe in so cruel and bloody times. *This thought* (saith he) *many times comes into my mind, whether these things are governed by Fate; or it lies also in our own Power to steer an even course void of Danger and Indignity, between servile Flattery and sullen Contumacy.* Tacit. Hist. 2.
Annal. 17.

THE PARABLE.

XXXII. *Give occasion to a wiseman and his wisdom will be increased.* Prov. ix.

THE EXPLICATION.

T He Parable distinguishes between that wisdom which is grown, and and ripened into true Habit; and that which swims only in the Brain

and conceit, or is boasted in speech, but hath not taken deep root. For the one upon occasion presented, wherein it may be exercis'd, is instantly quickned, prepared, and dilated, so as it seems greater than it self: but the other which before occasion was quick and active, now occasion is given, becomes amaz'd and confus'd, that even he who presumed the possession thereof, begins to call into doubt whether the preconceptions of *such wisdom* were not meer Dreams, and empty speculations.

THE PARABLE.

Prov. xxvii. XXXIII. *He that praiseth his friend aloud, rising early, it shall be to him no better than a curse.*

THE EXPLICATION.

Moderate and seasonable Praises, and utter'd upon occasion, much conduce both to mens Fame and Fortunes; but immoderate, streprous, and unseasonably pour'd out, profit nothing, nay rather from the sence of this Parable they do much prejudice. For first, they manifestly betray themselves to proceed either from too extreme Affection, or from a too studied Affectation, to the end that him whom they have thus praised; they may by false acclamations demerit rather to themselves; than by just attributes adorn his person. Secondly, sparing and modest Praises, commonly invite such as are present to add something of their own to the commendations; Contrarywise profuse and immodest Praises, invite the hearers to detract and take away something. Thirdly, (which is the principal point) too much magnifying a man stirs up envy towards him; seeing all immoderate Praises seem to be a Reproach to others, who merit no less,

THE PARABLE.

Prov. xxvii. XXXIV. *As Faces shine in waters, so mens hearts are manifest to the wise.*

THE EXPLICATION.

The Parable distinguisheth between the Hearts of wise men and of other Men; comparing those to waters or glasses, which receive and represent the forms and Images of things; whereas the other are like to Earth, or rude stone, wherein nothing is reflected. And the more aptly is the mind of a wise-man compar'd to a Glass or Mirror; because in a Glass his own Image may be seen together with the Images of others; which the eyes cannot do of themselves without a Glass. Now if the mind of a wise man be so capable, as to observe and comprehend such an infinite diversity of Natures and Customs, it remains

to

to be endeavour'd, that it may become no less various in the Application, than it is in the Representation,

Qui sapit, innumeris Moribus aptus erit.

Ovid. de A. A.

Thus have we staid perchance somewhat longer upon these *Parables of Solomon*, than is agreeable to the proportion of an example, being carried away thus far for the Dignity both of the matter itself, and of the Author. Neither was this in use only with the Hebrews, but it is generally to be found in the wise men of ancient times; that if any mans observation lite upon any thing that was good and beneficial to the common practick course of life, he would reduce and contract it into some *short sentence* or *Parable*, or else some *Fable*. But for *Fables* (as we have noted elsewhere) they were in times past *Vicegerents*, and *supplements of Examples*; now that the times abound with *History*, the aim is more right and Active, when the Mark is alive. But the form of writing which best agrees with so variable and universal an Argument (as is the handling of *negotiations and scatter'd Occasions*) that would be of all other the fittest which *Machiavel* made choice of, for the handling of matters of *Policy and Government*; namely by *Observations or Discourses*, as they term them, upon *History and Examples*. For knowledge drawn freshly, and, as it were in our view, out of *Particulars*, knows the way best to *Particulars* again; and it hath much greater life for Practice, when the *Discourse* or *Disceptation* attends upon the *Example*, than when the *Example* attends upon the *Disceptation*: for here not only *Order* but *Substance* is respected. For when the *Example* is set down as the Ground of the *Disputation*, it useth to be propounded with the preparation of circumstances, which may sometimes controul the *discourse* thereupon made; sometimes supply it; so it may be in place of a pattern for imitation and practice: whereas on the contrary, *examples* alledged for the *Disputations* sake, are cited succinctly and simply, and as bondmen wait, in a servil aspect, upon the commands of the *Discourse*. But this difference is not amiss to be observed, that as *Histories of Times* afford the best matter for *Discourses upon Politicks*, such as are those of *Machiavel*; so the *Histories of lives*, are the best *Instructions for discourse of Business*; because they comprize all variety of *Occasions and Negotiations*, as well great as small.

Lib. 2. cap. 12.

Discorso in Liv.

§ Nay there is a ground of Discourse for *Precepts touching Business*, more accommodate than both those sorts of *History*; which is, when *Discourses* are made upon *Letters*, but such as are wise and serious, as those of *Cicero ad Atticum*, and others. For letters usually represent Business more particularly, and more to the life; than either *Chronicles* or *Lives*. Thus have we spoken both of the Matter and Form of the first portion of the *Knowledge of Negotiation*; which handles *dispersed Occasions*, which we deliver up upon the accompts of *Deficiencies*.

II. There is also another portion of the same *Knowledge*, which differeth as much from that other, whereof we have spoken as *sapere*, and *sibi sapere*: for the one seems to move as it were, from the centre to the circumference

*
FABER.
FORTU-
NÆ, sive de
Ambitu vitæ.

circumference ; the other as it were , from the circumference to the centre. For there is a wisdom of giving Counsel unto others ; and there is a wisdom of forecasting for his own fortunes ; and these do sometimes meet, but more often sever, For many are exceeding wise in their own ways, which yet are weak for administration of civil affairs, or giving of Counsel, like the *Ant*, which is a wise creature for it self, but very hurtful for the Garden. This wisdom the Romans those excellent Patriots, did take much knowledge of ; whereupon the Comical Poet saith, *Certainly the Mould of a wise mans Fortune is in his own hands ;* yea it grew into an Adage among them,

Plaut.in Trin.
Cic.in Par.
Salust.ad
Cæs.Lib. 1.
Dec. 1v.

Faber quisque Fortuna proprie — ;

And *Livy* attributes the same virtue to *Cato Major* : *In this man there were such great abilities of wit and understanding, that into what climate soever his nativity had cast him, he seem'd to be able to command a fortune.* This kind of wisdom, if it be profess'd and openly declar'd, hath ever been thought not only impolitick, but an unlucky and ominous thing : as it was observed in *Timotheus the Athenian*, who after he had done many excellent services to the honour and utility of the state, and was to give an account of his government to the people, as the manner was, concluded every particular with this clause, *and in this, Fortune had no part* : but it fell out that he never prosper'd in any thing he took in hand afterwards. *This is in truth too high and favouring of extreme arrogance, aspiring to the same point of Pride which Ezekiel records of Pharaoh, Dicis fluvius est meus, & ego feci me ipsum ;* or of that which another Prophet speaks, *They exult and offer sacrifices to their net, and burn incense to their snare.* or of that which the Poet expresseth of *Mezentius a Despiser of the Gods.*

Plutar.in Syl-
la.

Ezech. 29.

Habac. 1.

Virg. Æn. 10.

*Dextra mihi Deus, & telum quod missile libro,
Nunc adsint.* —

Suet.in Julio.

Plut.in J.
Cæs.

Finally *Julius Cesar*, never to my remembrance, betrayed the impotency of his hidden thoughts so much, as in a speech of like nature ; for when the *Augur* gave him information that the entrails were not prosperous, he closely murmur'd to himself *Erunt letiora cum volo*, which saying of his preceded not long before the misfortune of his death. *But this extremity of Confidence,* (as we have said) as it is an unhallowed thing, so was it ever unblest. And therefore they that were great Politicks indeed, and truly wise, thought it their safest course, ever to ascribe their successes to their Felicity ; and not to their skill and virtue. So *Sylla* firnam'd himself *Felix*, not *Magnus* ; and *Cæsar* (more advisedly than before) saith to the *Pilot*, *Cæsarem vehis, & fortunam ejus.* But yet nevertheless these Positions ; *Faber Quisque Fortuna sua. Sapiens dominabitur Astris. In via virtuti nulla est via,* and the like ; if they be understood and applied rather as spurs to industry, than as stirrups to insolency ; and rather to beget in men courage and constancy of Resolutions, than Arrogancy and Ostentation ; are deservedly accounted sound and healthful ; and (no question) have been

ever

ever imprinted in the greatest Minds, so sensibly, as sometimes they can scarce dissemble such cogitations. For we see Augustus Cæsar (who compared with his uncle, was rather diverse, than inferiour, but certainly a person more staid and solemn) when he died, desired of his friends that stood about his Bed, *that when he expired they would give him a Plaudite*; as if he were conscient to himself, that he had plaid his part well upon the stage. *This portion* also of knowledge is to be summ'd up amongst *Deficients*; not but that it hath been usurped and frequented in Practice, far more excessively than is fitting; but because books concerning *this Argument* are silent. Wherefore according to our custom, as we did in the former; we will set down some heads or passages of it; and we will call it *Fabrum Fortune*, or as we have said; — *Doctrinam de Ambitu vitæ.* — Wherein, at the first view, I may seem to handle a new and strange Argument, in teaching men how they may be raisers and makers of their own fortune; a doctrine certainly to which every man will willingly yield himself a Disciple, till he throughly conceives the difficulty thereof. For the conditions are neither lighter, or fewer, or less difficult to the Purchase of Fortune, than to the purchase of virtue; and it is as hard and severe a Thing to be a true *Politick*, as to be truly *Moral*. But the handling hereof concerns learning greatly, both in *Honour* and in *Substance*. For it is a principal point which nearly concerns the *Honour of Learning*, that Pragmatick men may know, *that Learning is not like some small Bird, as the Lark, that can mount and sing, and please her self, and nothing else; but that she holds as well of the Hawk, that can soar aloft, and after that when she sees her time, can stoop and seize upon her prey.* Again this kind of wisdom much respects the *Perfection of Learning*; because it is the right rule of a perfect enquiry, *that nothing be found in the Globe of Matter, that hath not a Parallel in the Crystalline Globe, or the Intellect*: That is, that there be not any thing in Being and Action, that should not be drawn and collected into contemplation and Doctrine. Neither doth learning otherwise admire or esteem *this Architecture of Fortune*, than as a work of an inferiour kind: for no mans proper fortune can be a retribution any way worthy the donation of his Essence and Being granted him from God; nay it often comes to pass, that men of excellent gifts abandon their Fortunes willingly, that their minds may be vacant for more sublime respects: yet nevertheless *Fortune*, as an Organ of virtue and merit, deserves likewise her speculation and Doctrine.

§ *Unto this knowledge* appertain precepts, some *summary* and *Principal*; some *spars'd* and *various*. Precepts *Summary* are conversant about the true knowledge *both of others*; and *of himself*. The *first Precept*, wherein the principal point of the *knowledge of others* doth consist, may be determined this; that we procure to our selves, so far as may be, *that window* which *Momus* once required. He, when he saw in the frame of Mans heart, so many *Angles* and *Recesses*, found fault that *there was not a window, through which a man might look into those obscure and crooked windings.* This *window* we shall obtain, if with all diligent circumspection we purchase and procure unto our selves good information touching particular Persons, with whom we negotiate and have

to deal; as also of their natures, their desires, their ends, their customs, their Helps and Advantages, whereby they are chiefly supported and are powerful; and again, of their weakneses and disadvantages, and where they lie most open and are obnoxious; of their Friends, Factions, Patrons and Dependancies; and again of their Opposites, Enviars, Competitors; as also their Modes, Times, and Critical seasons of easie Access.

Sola viri molles Aditus, & tempora noris.

Virg. Æn. IV.

Lastly the Principles and Rules which they have set down to themselves; and the like. And this information must be taken not only of *Persons*, but of Particular Actions also which are on Foot, from time to time, and as it were hot upon the Anvil; how they are conducted and succeed; by whose furtherances they are favour'd, by whom oppos'd, of what weight and moment they are, and what consequence they infer; and the like. For the knowledge of present Actions is not only material in it self, but hath this advantage also, as without it the knowledge of Persons will be very deceitful and erroneous: for Men change with the Actions; and while they are implicated in Actions, engaged and environed with business, they are one; when they return to their Nature, they are another. These Informations touching Particulars, respecting as well Persons as Actions, are as the Minor Propositions in every Active Syllogism: for no verity or excellency of Observations or Axioms (whereof the Major Propositions Politick are made) can suffice to ground a conclusion, if there be error and mistaking in the Minor Proposition. And that such knowledge may be compassed, Solomon is our surety, who saith—*Counsel in the Heart of a Man is like a deep water, but a wise man will draw it out.*—And although the knowledge it self fall not under Precept, because it is of Individuals, yet instructions for the deducing of it may with profit be set down.

Prov. xx.

§ The knowledge of Men six ways may be disclosed and drawn out; by their Faces and Countenances, by Words, by Deeds, by their Nature, by their Ends, and by the Relations of others. As for the Visage and Countenance, let not the ancient Adage move us,

Fronti nulla fides—

Juv. Sat. II.

For though this saying may not amiss be meant of the outward and general composure of the Countenance and Gesture, yet there are certain subtil motions and labours of the Eyes, Face, Looks, and Gesture, whereby, as Q. Cicero elegantly saith, is unlockt and open'd—*Ianna quædam animi*—the gate of the mind. Who more close than Tiberius Cæsar? But Tacitus, noting the Character and different manner of speaking, which Tiberius us'd in commending in the Senate the great services done by Germanicus and Drusus; of the commendations given of Germanicus he saith thus—*Magis in speciem verbis adornata, quam ut penitus sentire crederetur*, of the commendations given of Drusus thus,---*Paucioribus; sed intentior, & fidâ oratione.* Again Tacitus noting the same Tiberius at other times somewhat more clear and legible saith—*Quin ipse*

De Pet. Conf.

Annal. I.

Annal. IV.

*ipse compositus aliàs & velut eluctantium verborum; solutiùs prompti-
usq; loquebatur quoties subveniret.* Certainly there can hardly be
found any Artificer of *Dissimulation* so cunning and excellent, or a
Counterance so forced, or as he saith — *vultus jussus* — so command-
ed, that can sever from an artificiose and feigned speech, these Notes;
but that the speech is either more *slight* and *careless*, or more *set* and
formal, or more *tedious* and *wandering*, or more *dry* and *reluctant*,
than usual.

§ As for *Mens words* they are (as Physicians say of *Waters*) full
of flattery and uncertainty; yet these counterfeit colours are two
ways excellently discover'd; namely when *words* are uttered either
upon the *sudden*, or else in *passion*. So *Tiberius* being suddenly moved,
and somewhat incens'd upon a stinging speech of *Agrippina*, came a
step forth of his inbred *dissimulation*. — *These words*, saith *Tacitus* Annal. iv;
heard by Tiberius, drew from his dark covert Breast such words
as he us'd seldom to let fall; and taking her up sharply, told her her
own in a Greek verse. *That she was therefore hurt because she did not*
reign. Therefore the Poet doth not improperly call such *Passions* —
Tortures — because they urge men to confess and betray their
secrets,

Vino tortus & Ira —

Hor. Epist. 1.

Experience indeed shews that there are few men so true to them-
selves, and so settled in their resolves, but that sometimes upon heat,
sometimes upon bravery, sometimes upon intimate good will to a
Friend, sometimes upon weakness and trouble of mind, that can no
longer hold out under the weight of griefs; sometimes from some o-
ther Affection or Passion, they reveal and communicate their inward
Thoughts: but above all, it sounds the mind to the bottom, and search-
eth it to the quick, when Simulation is put to it by a counter-Dissi-
mulation according to the proverb of *Spain*, *Di Mentira, y sacaras*
verdad; *Tell a lye and find a Truth.*

§ Neither are *Deeds*, though they be the surest pledges of mens
minds, altogether to be trusted without a diligent and judicious
consideration of their *Magnitude* and *Nature*: For the saying is most
true, *That fraud erects it self a countermure of credit in smaller matters,*
that it may cheat with better advantage afterwards. The *Italian* thinks
himself upon the *Cross* with the *Cryer*, and upon the point to be
bought and sold, when he is better used than he was wont to be,
without manifest cause: for small favours, they do but lull men a
sleep, both as to *cantion*, and as to *Industry*, and are rightly called
by *Demosthenes* *Alimenta socordiae*. Again, we may plainly see the Demost
false and inconstant propriety and nature of some *Deeds*, even of
such as are accounted *Benefits*, from that particular which *Mutianus*
practis'd upon *Antonius primus*, who upon that hollow and unfaithful
reconcilement made between them, advanced many of the Friends
of *Antonius*, and bestowed upon them *Tribuneships*, and *Captainships* Tacitus H. B.
liberally: by this subtille pretence of demerit, he did not strengthen, iv.
but altogether disarm and desolate *Antonius*, and win from him his
Dependances, and made them his own creatures.

§ But

§ But the surest key, to unlock the minds of Men, *consists in searching and disclosing either their Natures and dispositions, or their ends and intentions.* And certainly the weakest and simplest sort of men are best interpreted by their *Natures*; but the wisest and more reserved are best expounded by their *Ends*. For it was wisely and pleasantly said (though in my judgement very untruly) by a *Nuntio* of the Popes, returning from a certain Nation, where he served as *Leidger*, whose opinion being askt, touching the appointment of one to go in his place, gave counsel, *that in any case his Hol. would not send one too wise, because, said he, no wise man would ever imagine, what they in that country were like to do.* Certainly it is a frequent error, and very familiar with wise men, to measure other men, by the Module of their own abilities; and therefore often shoot over the mark, supposing men to project and design to themselves deeper ends, and to practise more subtil Arts, and compass reaches, than indeed ever came into their heads, which the *Italian Proverb* elegantly noteth, saying,

*Dì Denári, dì Sénno, e dì Fède
C'n'è Mánco ché non Créde.*

Prov. 25.

There is commonly less Money, less Wisdom, and less good Faith than men do accompt. Wherefore if we be to deal with men of a mean and shallow capacity, because they do many things absurdly, the conjecture must be taken rather from the proclivity of their *Natures*, than the designs of their *ends*. Furthermore, *Princes* (but upon a far other reason) are best interpreted by their *Natures*; and *private persons* by their *ends*. For *Princes* being at the top of humane Desires, they have, for the most part, no particular ends propounded to themselves, whereto they aspire, specially with vehemency and perseverance; by the site and distance of which ends, a man might take measure and scale of the rest of their *Actions*, and *Desires*; which is one of the chief causes that their *Hearts* (as the Scripture pronounceth) are *inscrutable*. But *private persons* are like *Travellers* which intentively go on aiming at some *end* in their journey, where they may stay and rest; so that a man may make a probable conjecture and presage upon them, what they would; or would not *Do*: for if any thing conduce unto their ends, it is probable they will put the same in execution; but if it cross their designs, they will not. Neither is the information touching the diversity of mens *ends* and *natures*, to be taken only *simply*, but *comparatively* also; as namely *what affection and humor have the predominancy and command of the rest?* So we see, when *Tigellinus* saw himself outstript by *Petronius Turpilianus* in administering and suggesting pleasures to *Neroes* humor, — *Metus ejus rimatur*— saith *Tacitus*, he wrought upon *Neroes* Fears, and by this means brake the neck of his Concurrent.

Annal. xiv.

§ As for the knowing of mens minds at second hand from Reports of others, it shall suffice to touch it briefly. *Weaknesses and faults you shall best learn from enemies; virtues and abilities, from friends; customs and times, from servants; cogitations and opinions, from intimate*

mate confidents, with whom you frequently and familiarly discourse. Popular fame is light, and the judgement of superiours uncertain; for before such, men are more maskt;

—*Verior Fama è Domesticis emanat*—

Q. Cic. de
Per. Con.

But to all this part of enquiry, the most compendious way resteth in three things. *First*, to have general acquaintance and inwardness with those which have most lookt into the world, and are well vers't both in men and matters; but especially to endeavour to have privacy and conversation with some particular friends, who according to the diversity of Business and Persons, are able to give us solid information, and good intelligence of all passages. *Secondly*, to keep a *discreet temper* and *mediocrity*, both in liberty of speech and *Taciturnity*; more frequently using *liberty*, but *secrecy* where it imports. *For liberty of speech invites and provokes others to use the same liberty to us again; and so brings much to a mans knowledge; but silence induceth trust and inwardness, so as men love to lay up their secrets with us as in a closet.* *Thirdly*, we must by degrees acquire the *Habit of a watchful and present wit*, so as in every conference and action we may both *promote the main matter in hand, and yet observe other circumstances that may be incident upon the Bye.* For as *Epictetus* gives it in Precept, a Philosopher in every particular action, should say thus to himself, *I will do this also, and yet go on in my course.* So a *Politick* in every particular occurrence should make this account and resolution with himself; *And I will do this likewise, and yet learn something that may be of use hereafter.* And therefore they who are of such a heavy wit and narrow comprehension, as to overdo one particular, and are wholly taken up with the business in hand; and do not so much as think of any matters which intervene (a weakness that *Montaigne* confesses in himself) such indeed are the best instruments of Princes and of State; but fail in point of their own *Fortune.* But in the mean time, above all things caution must be taken, *that we have a good stay, and hold of our selves, by repressing a too active forwardness of disposition;* lest that this knowing much, do not draw us on to much meddling; for nothing is more unfortunate, than light and rash intermeddling in many matters. So that this *variety of knowledge of Persons and Actions*, which we give in Precept to be procured, tends in conclusion to this; to make a judicious choice both of those *Actions* we undertake, and of those *Persons* whose advice and assistance we use, that so we may know how to conduct our affairs with more dexterity and safety.

Epict. Enchir.

Essays.

§ *After the knowledge of others follows the knowledge of our selves;* for no less diligence, rather more, is to be taken in a true and exact understanding of *our own Persons;* than of the *Persons of others*, for the Oracle, *Nosce Teipsum*, is not only a rule of universal Prudence, but hath a special place in *Politicks;* for 'as *St. James* excellently puts us in mind, *that he that views his Face in a Glass, yet instantly forgets what one he was;* so that there is need of a very frequent inspection. The same holds also in Civil Affairs; but there are indeed

Jacob. i.

divers Glasses; for the *Divine Glass* in which we must look our selves, is the Word of God; but the *Politick Glass* is nothing else but the State of the World and times wherein we live. *Wherefore* a man ought to take an exact examination, and an impartial view (not such as useth to be taken by one too much in love with himself) of his own abilities, vertues and supports; as likewise of his own defects, Inabilities, and Impediments; so making his accounts, that he ever estimate *these* with the most, *those* rather with the least; and from this view and examination, these points following come into consideration.

§ *The first Consideration should be, how a man's individual constitution and moral temper sorts with the general state of the times; which if they be found agreeable, then he may give himself more scope and liberty, and use his own nature; but if there be any antipathy and dissonancy, then, in the whole course of his life, he should carry himself more close retired, and reserved.* So did *Tiberius*, who being conscient of his own temper, not well sorting with his times, was never seen at publick Plays: and came not into the Senate in twelve of his last years: whereas on the contrary *Augustus* lived ever in mens eyes, which also *Tacitus* observed: *Alia Tiberio Morum via*; the same reason too was to secure his person from danger.

Annales.

§ *The second Consideration should be how a man's nature sorts with the professions and courses of life, which are in use and esteem, and whereof he is to make his choice; that so if he have not yet determined what race to run, or what course of life to take, he may chuse that which is most fit and agreeable to his natural disposition; but if it he be engaged already in a condition of life, to which by nature he is not so fitted, let him make a departure at the first opportunity, and take another Profession.* This we see was done by *Valentine Borgia*, that was design'd by his father to a Sacerdotal profession, which, obeying the bent of his own nature, he quitted soon after, and applied himself to a Military course of life; though as equally unworthy the dignity of a Prince as of a Priest, seeing the pestilent Man hath dishonoured both.

§ *The third Consideration should be how a man may be valued, and may deport himself as he is compar'd with his Equals and Rivals, whom it is likely he may have Competitors and Concurrents in his Fortune, and that he take that course of life wherein there is the greatest solitude of able men; and himself like to be most eminent.* Thus *Julius Caesar* did, who at first was an Orator or Pleader, and was chief conversant in Gown-Arts of Peace; but when he saw *Cicero*, *Hortensius* and *Catulus* to excel in the glory of Eloquence, and no man eminent for the Wars but *Pompeius*, he forsook his course, and bidding a long farewell to a civil and popular Greatness, transfer'd his designs to the Wars, and to the Martial Greatness; by which mean he ascended to the top of Sovereignty.

The fourth Consideration may be, that in the choice of friends and inward dependances, a man consult his own nature and disposition, and proceed according to the composition of his own temper; for different constitutions require different kinds of friends to comply withall; to some
men,

men, solemn and silent natures, to others bold and boasting humours are acceptable; and many of the like sort. Certainly it is worth the observation, to see of what disposition the friends and followers of Julius Cæsar were, (as Antonius, Hirtius, Pansa, Oppius, Balbus, Dolabella, Pollio, the rest) these were wont to swear, *itâ vivente Cæsare moriar*; bearing an infinite affection to Cæsar, but towards all others disdainful and arrogant, and they were men in publick Business active and effectual; in fame and reputation, not solemn and celebrated.

The fifth Consideration may be that a man take heed how he guide himself by Examples, and that he do not fondly affect the Imitation of others; as if that which is pervious to others, must needs be as patent to him, never considering with himself what difference perhaps there is betwixt his and their natures and carriages, whom he hath chosen for his pattern and example. This was manifestly Pompeius's error, who, as Cicero reports it, was wont often to say, *Sylla potuit, Ego non potero?* wherein he was much abused, the nature and proceedings of himself and Sylla, being the unlikeliest in the world; the one being fierce, violent, and pressing the fact; the other solemn, reverencing Laws, directing all to Majesty and Fame; and therefore the less effectual and powerful to go thorough with his designs. There are more Precepts of this nature, but these shall suffice for Example to the rest.

§ Nor is the well understanding, and discerning of a man's self sufficient, but he must consult with himself upon a way how he may aptly and wisely open and reveal himself, and in sum, become flexible and moulded to the severall forms and impressions of occasions. As for the Revealing of a man's self, we see nothing more usual, than for the less able man to make the greater shew. Wherefore it is a great advantage to good parts, if a man can by a kind of Art and Grace set forth himself to others, by aptly revealing (so it be done without distaste or arrogance) his Vertues, Merits and Fortune; and on the contrary by covering artificially his weakneses, defects, misfortunes and disgraces; staying upon those, and as it were, turning them to the light; sliding from these, and lessening them by an apt exposition, and the like. Wherefore Tacitus saith of Mucianus, who was the wisest man and the greatest Politick of his time, *Omnia quæ dixerat feceratq; Arte quâdam ostentator*. This setting forth of a man's self requires indeed some Art, lest it turn tedious and arrogant; but yet so, as some kind of *Ostentation*, though it be to the first degree of vanity, seems rather a vice in the *Ethicks*, than in the *Politicks*. For as it is usually said of Slander, *Audacter calumniare, semper aliquid hæret*. So it may be said of *Ostentation* (unless it be in a gross manner deform'd and ridiculous) *Audacter te vendita, semper aliquid hæret*; it will stick certainly with the more ignorant and inferiour sort of men, though the more wise and solemn smile at it, and despise. Therefore the *Estimation* won with many, shall countervail the disdain of a few. But if this *Ostentation* of a man's self, whereof we speak, be carried with decency and discretion; for example, if it make shew of a native candor and inbred ingenuity; or if it be assum'd at times, when other Perils approach (as in Military persons in time of War)

or at times when others are most envied, or if words which respect a mans *own Praise*, seem to fall from him in a careless passage, as intending something else, without dwelling too long upon them, or being too serious; or if a man so *grace himself*, as with equal freedom, he forbears not to tax and jest at himself; or in sum, if he do this not of his own accord, but as urg'd and provokt by the insolencies and contumelies of others, it doth greatly add to a mans Reputation. *And surely* not a few (more solid than windy natures, and therefore want the Art of bearing up sayl in the height of the winds;) suffer for their moderation, not without some prejudice, and disadvantage to their reputation and merit. *But for these* Flourishes and enhancements of vertue, howsoever some of weak judgement, and perchance too severely Moral, may disallow, no man will deny this, but that we should endeavour at least, that vertue thorow careless negligence be not disvalued, and imbas'd under the just price. *This diminution* of the value, and abating the price in estimating Virtue, is wont to fall out three wayes. *First when* a man offers and obtrudes himself and service in matters of employment not call'd nor sent for; such prompt offices as these are reputed well rewarded, if they be not refused. *Secondly when* a man in the beginning and first on-set of an employment, too much abuseth his own forces and abilities, when that which should have been performed by degrees, he lavisheth out all at once; which in matters well managed, wins early grace and commendation, but in the end induceth satiety. *Thirdly when* a man is too suddenly sensible, and too inconsiderately transported with the fruit of his vertue, in commendation, applause, honour, favour confer'd upon him; and is too much affected and delighted therewith: of this point there is a wise Aviso. *Beware lest you seem unacquainted with great matters, that are thus pleas'd with small, as if they werè great.*

§ *But the covering of Defects is of no less importance than a wise and dexterous ostentation of vertues. Defects are conceal'd and secreted by a three-fold industry, and as it were under three covert, Caution, Colour, and Confidence. Caution* is that, when we do wisely avoid to be put upon those things for which we are not proper; whereas contrariwise bold and unstaid spirits will easily engage themselves without judgement, in matters wherein they are not seen, and so publish and proclaim all their imperfections. *Colour* is when we do warily and wisely prepare and make way, to have a favourable and commodious construction made of our faults and wants; as proceeding from a better cause, or intended for some other purpose than is generally conceiv'd: for of the Covert of Faults the Poet saith well,

Sæpe latet vitium proximitate Boni.

Ovid,

Wherefore if we perceive a *Defect* in our selves, our endeavour must be to borrow and put on the *Person* and *Colour* of the next bordering Vertue, wherewith it may be shadowed and secreted. For instance, he that is *Dull*, must pretend *Gravity*; he that is a *Coward*, *Mildness*, and so the rest. And it will advantage, to frame some probable cause, and to give it out and spread it abroad, that induced us to dissemble
our

our abilities and not do our best; that so *making a Vertue of Necessity*, what was not in our *power*, may seem not to have been in our *will* to do. *As for Confidence*, it is indeed an impudent, but the surest and most effectual remedy; namely that a man profess himself to despise and set at naught, what in truth he cannot attain; according to the Principle of wise Merchants, with whom it is familiar to raise the price of their own Commodities, and to beat down the price of others. *But there is another kind of Confidence* far more impudent than this, which is to *face out a mans own Defects*, to boast them and obtrude them upon Opinion; as if he conceiv'd that he was best in those things, wherein he most fails; and to help that again, that the Deception put upon others may come off more roundly, he may feign, that he hath least opinion of himself in those things, wherein he is best. *Like as we see it commonly in Poets*; for a Poet reciting his verses, if you except against any verse, you shall presently hear him reply, *And for this verse it cost me more labour than the rest*; and then he will bring you some other verse, and seem to disable and suspect that rather, and ask your judgement of it, which yet he knows to be the best in the number, and not liable to exception. *But above all*, in this *Helping a mans self in his carriage*, namely, that a man may set the fairest gloss upon himself before others, and right himself in all points, nothing, in my opinion, avails more, *than that a man do not dismantle himself and expose his person to scorn and injury by his too much Goodness and Facility of Nature*; but rather in all things shew some sparkles and edge of a free and generous spirit, that carries with it as well a sting, as Honey. Which kind of fortified-carriage, together with a prompt and prepared resolution to vindicate a mans self from scorn, is imposed upon some by accident and a kind of an inevitable necessity, for somewhat inherent in their person or fortune; as we see it in Deformed Persons and Bastards, and in Persons any way disgrac'd; so that such natures, if they have any good parts, commonly they succeed with good felicity.

§ *As for the declaring of a Mans self*, that is a far different thing from *Ostentation*, or the *Revealing of a mans self*, whereof we spake even now; for it refers not to *Mens abilities or weaknesses*, but to the *Particular Actions* of life; in which point, *nothing is more Politick, than to observe a wise and discreet mediocrity in the disclosing or secreting the inward intentions and meanings of the mind touching particular Actions*. For although depth of secrecy and concealing of Counsels, and that manner of managing Business, when men set things awork by dark, and as the French stiles it, *Sourdes Menées, sourd Arts, close Carriages*, be a thing both prosperous and admirable; yet many times it comes to pass, as the saying is, *That Dissimulation begets errors, and illaqueates the Disssembler himself*. For we see the ablest men, and greatest *Politicks* that ever were, have made no scruple of it, openly to profess, freely and without dissimulation, the ends they aim at: so *L. Sylla* made a kind of profession, *That he wisht all men happy or unhappy as they stood his friends or enemies*: So *Cæsar* when he went first into *Gaul* confidently profess't, *That he had rather be first in an obscure village, than second at Rome*: the same *Cæsar* when the war was now begun did not

Plutar. in Sylla.

Plutar. in J. Cæs.

play

play the dissembler, if we observe what *Cicero* reports of him; the other (meaning of *Cæsar*) refuseth not, nay in a sort desires, that, as matters stand, he may so be called Tyrant. So we may see in a letter of *Cicero's* to *Atticus*, how far from a *Dissembler Augustus Cæsar* was, who in his very entrance into Affairs, while he was a darling to the Senate, yet in his Harangues and speeches to the People was wont to swear after this manner, *Ità parentis honores consequi liceat*, which was no less than the Tyranny; save that, to help the matter a little, he would withal stretch forth his hand to a statue of *Iulius Cæsars*, which was erected in the *Rostræ*: and men laught and applauded, and wondred and discoursed thus amongst themselves, *what means this? What a young man have we here?* and yet thought he meant no hurt, he did so candidly and ingenuously speak what he meant. And all these, we have nam'd, were prosperous: Whereas on the other side, *Pompeius*, who tended to the same ends, but by more umbragious and obscure ways (as *Tacitus* saith of him, *Occultor non melior*; a censure wherein *Salust* concurs, *Ore probo, Animo inverecundo*,) made it his design, and endeavoured by infinite engines, that deeply hiding his boundless desires and ambition, he might in the mean space cast the state into an Anarchy and Confusion, whereby the state must necessarily cast it self into his arms for protection, and so the sovereign Power be put upon him, and he never seen in it: and when he had brought it, (as he thought,) to that point, when he was chosen *Consul* alone, as never any was; yet he could make no great matter of it; because those, that without question would have cooperated with him, understood him not; so that he was fain in the end, to go the beaten and common track of getting Arms into his hands, by colour of opposing himself against *Cæsar*: so tedious, casual, and unfortunate are those Counsels which are cover'd with deep *Disimulation*; whereof it seems *Tacitus* made the same judgement, when he makes the *Arts of Simulation*, a prudence of an inferior form, in regard of *true Policy*, attributing the one to *Augustus*, the other to *Tiberius*; for speaking of *Livia* he saith thus, *That she sorted well with the Arts of her husband, and Disimulation of her son.*

§ As touching the bending and moulding of the Mind; it must indeed by all possible means be endeavoured, that the mind be made pliant and obedient to occasions and opportunities, and that it be not any way stiff and renitent to them: for nothing hinders the effecting of Business, and the making of mens fortunes so much as this: *Idem manebat neque idem decebat*, that is, when men are where they were, and follow their own bent when occasions are turn'd. Therefore *Livy*, when he brings in *Cato Major*, as the expertest Architect of his fortune, very well annexes this, that he had, *versatile ingenium*, and thereof it comes, that these grave solemn wits, which must be like themselves, and cannot make departure, have for most part more dignity than felicity. But in some it is nature to be viscuous and inwrapt and not easie to turn: in others it is custom, that is almost a nature, and a conceit, which easily steals into mens minds, which is, that men can hardly make themselves believe, that they ought to change such courses, as they have found good and prosperous by farther experience. For *Machiavel* notes wisely in

Fabius

Ad Att. Lib. x.
E. 4.

Cic. ad Attic.

Hist. 2.

Sal. apud Sueton. lib. de
ei. Gramm.

Annal. libris.

Fabius Maximus, How he would have been temporizing still according to his old bias, when the nature of the war was altered and required hot pursuit. In some others the same weakness proceeds from want of penetration in their judgement, when men do not in time discern the Periods of things and Actions, but come in too late after the occasion is escaped. Such an oversight as this, *Demosthenes* reprehends in the People of Athens, saying, they were like countrey-fellows playing in a Fence-school, that if they have a blow, then they remove their weapons to that ward and not before. Again in others this comes to pass, because they are loth to lose the labour, in that way, they have enter'd into, nor do they know how to make a retrait; but rather entertain a conceit, that by perseverance they shall bring about occasions to their own ply. But from what root or cause soever this viscosity and restiveness of mind proceeds, it is a thing most prejudicial both to a mans affairs and fortunes; and nothing is more politick, than to make the wheel of our mind concentrick and voluble with the wheels of Fortune. Thus much of the two summary precepts touching the Architecture of Fortune. Precepts scatter'd are many, but we will only select a few to serve as examples to the rest.

Discours. Supra Liv.

Orat. in Philipp. 1.

§ The first Precept is, that this Architect of his own fortune rightly use his Rule, that is, that he inure his mind to judge of the Proportion and value of things, as they conduce more or less to his own fortune and ends; and that he intend the same substantially, and not superficially. For it is strange, but most true, that there are many, whose Logical part of Mind (if I may so term it) is good, but the Mathematical part nothing worth; that is, who can well and soundly judge of the consequences, but very unskilfully of the prizes of things. Hence it comes to pass, that some fall in love and into admiration with the private and secret access to Princes; others with popular fame and applause, supposing they are things of great purchase, when in many cases they are but matters of envy, peril, and impediment: others measure things, according to the labour and difficulty spent about them, thinking that if they be ever moving, they must needs advance and proceed; as *Cæsar* said in a despising manner of *Cato Uticensis*, when he describes how laborious, assiduous and indefatigable he was to no great purpose, *Omnia (saith he) magno studio agebat*. Hence likewise it comes to pass, that men often abuse themselves, who if they use the favour and furtherance of some great and honourable Person, they promise themselves all prosperous success; whereas the truth is, that not the greatest, but the aptest instruments, soonest, and more happily accomplish a work. And for the true direction of the Mathematical Square of the Mind; it is worth the pains especially to know, and have it set down, what ought first to be resolved upon for the building and advancing of a mans fortune; what next, and so forward.

§ In the first place I set down, the Amendment of the mind; for by taking away and smoothing the impediments, and rubs of the Mind, you shall sooner open a way to fortune, than by the assistance of Fortune, take away the impediments of the Mind. In the second place I set down wealth and Means, which perchance most men would have placed first, because of the general use it bears towards all variety

riety of occasions; but that opinion I may condemn with like reason, as *Machiavel* in another case not much unlike; for whereas the old saying was, that *Monies were the sinews of war*, he on the contrary affirmed, that there were no other sinews of wars, save the sinews of valiant mens arms. In like manner it may be truly affirmed, that it is not *Monies that is the sinews of Fortune*, but the sinews rather and abilities of the Mind, Wit, Courage, Audacity, Resolution, Moderation, Industry, and the like. In the third place, I set down *Fame and Reputation*, and the rather because they have certain tides and times, which if you do not take in their due season, are seldom recovered; it being a very hard matter to play an after-game of Reputation. In the last place I set down *Honours*, to which certainly there is a more easie access made by any of the other three, much more by all united; than if you begin with *Honours* and so proceed to the rest. But as it is of special consequence, to observe the order and priority of things; so is it of less import, to observe the order and priority of Time; the preposterous placing whereof, is one of the commonest errors; while men fly unto their ends, when they should intend their beginnings; and whilst we suddenly seize upon the highest matters, we rashly pass over what lies in the midst; but it is a good precept, *Quod nunc instat agamus.*

The second precept is, that upon a greatness and Confidence of Mind, we do not engage our forces in too arduous matters, which we cannot so well conquer; nor that we row against the stream. For as touching mens Fortune, the counsel is excellent,

— *Fatis accede Deisque.*

Let us look about us on every side, and observe where things are open, where shut and obstructed; where easie, where difficile, to be compassed; and that we do not overstrain and misemploy our strength where the way is not passible, for this will preserve us from foil; not occupy us too much about one matter; we shall win an opinion of Moderation; offend few; and lastly, make a shew of a perpetual felicity in all we undertake; whilst those things which peradventure would of their own accord have come to pass, shall be attributed to our providence and industry.

The third Precept may seem to have some repugnancy with that former immediately going before; though if it be well understood, there is none at all. The Precept is this; that we do not always expect occasions, but sometimes provoke them, and lead the way unto them; which is that which *Demoſthenes* intimates in high terms. For as it is a received principle that a General should lead the Army; so wise and understanding men should conduct and command matters, and such things should be done as they saw fit to be done; and that they should not be forc'd to pursue and build only upon events. For if we diligently consider it; we shall observe two differing kinds of sufficiency in managing affairs and handling business; for some can make use of occasions aptly and dexterously, but plot and excogitate nothing; some are all for Plots, which they can well urge and pursue, but cannot accommo-
date

date and take in: Either of which abilities is maimed, and imperfect without the other.

A fourth Precept is, not to embrace any matters which do occupy too great a quantity of time; but to have that verse ever sounding in our ears.

Sed fugit interea, fugit irreparabile tempus.

And the cause why those who addict themselves to professions of burden and the like, as Lawyers, Orators, painful Divines, writers of Books, and the like, are not commonly so politick in contriving and promoting their own fortunes, is no other than this; that they want time, which is otherwise employed, to inform themselves of Particulars; and to wait upon occasions, and to devise and project designs which may conduce to the making of their fortune. Nay farther, in the Courts of Princes and in States, you shall have those that are exceeding powerful and expert how to advance their own Fortune, and to invade the Fortune of others, which undergo no publick charge, but are continually practised in that whereof we speak. The Advancement of Life.

*A Fifth Precept is, to imitate nature which doth nothing in vain. Which certainly we may do, if we discreetly mingle and interlace our businesses of all sorts. For the mind should in every particular action be so disposed and prepared; and our intentions so subdued, and subordinated one under another; as if we cannot have that we seek in the best degree, yet we may have it in a second, or at least in a third: but if we can get no footing nor any consistency at all in any part of a thing we desire; then we may turn the pains we have taken upon some other end, than that whereto it was designed: but if we cannot make any thing of it for the present, at least we may extract something out of it that may stand us in stead for the time to come; but if we can derive no solid effect or substance from it, neither for the present nor for the future; let us yet endeavour to win some good opinion and reputation by it; and the like: ever exacting accounts of our selves, whereby it may appear that we have reapt somewhat more or less from every particular Action and Counsel; never suffering our selves to be cast down and dispirited, like men amaz'd and confus'd, if perchance we fail in the principal scope of our intentions. For nothing is more prejudicious to a Politick, than to be wholly and solely taken up with one thing; for he that doth so, loseth infinite occasions which do intervene upon the by; and which perhaps are more proper and propitious for somewhat may be of use hereafter; than for those things we urge for the present: and therefore we must be perfect in that Rule, *Hæc oportet facere & illa non omittere.**

Epist. Each.

A sixth Precept is, that we engage not our selves too peremptorily in any thing though it seem not at first sight, liable to accident; but that we ever have either an open window to fly out at, or a secret postern-way to retire by.

A seventh Precept is, that ancient Rule of Bias; so it be construed not to any point of Perfidiousness; but to caution and moderation.

So love a man as yet thou maist become an enemy, so hate a man as yet thou maist become his Friend; for it utterly betrays and frustrates all utility, for a man to embark himself too far in unfortunate friendships, unquiet and troublesome spleens, or childish and humorous Æmulations.

*These shall suffice for examples touching the knowledge of the Advancement of Life: yet I would have it remembred, that these adumbrations which we have drawn and set down as Deficients, are far from compleat Tractates of them, but only that they are as little pieces and edgings for patterns, whereby a judgement may be made of the whole web. Again we are not so weak and foolish as to avouch that Fortunes are not to be obtained without all this ado; for we know well they come tumbling into some mens laps, and a number obtain good fortunes only with diligence and assiduity (with some little caution intermingled) in a plain way, without any great or painful Art. But as Cicero, when he sets down the Idea of a perfect Orator, doth not mean that every Pleader should be or can be such: and again as in the description of a Prince or a Courtier, by such as have handled those subjects; the Mould is made according to the perfection of the Art, and not according to common practice: the same we have performed in the instruction of a Politick man; I mean Politick for his own Fortune. And likewise take this advertisement along with you, That the Precepts which we have chosen and set down, are all of that kind which may be counted and called Bonæ Artes. As for Evil Arts, if a man would yield himself a disciple to Machiavel who gives it in precept, That a man needs not much care for vertue it self, but for the appearance only thereof in the eyes of the world, because the fame and credit of vertue, is a help, but the use of it a cumber; who in another place gives this rule: That a Politick man lay this as a foundation of his practick wisdom, that he presuppose, that men are not rightly and safely to be wrought upon and bowed to the bent of our wills, otherwise than by fear; and therefore let him endeavour by all means possible to have every man obnoxious, low and in streights. So as Machiavel's Politician seems to be what the Italians call *il seminatore delle spine*; or if any would embrace that Principle which Cicero cites, *Cadant amici, dummodo inimici intercidant*; as the *Triumviri* sold the lives of their friends, for the deaths of their enemies. Or if a man would be an imitator of *L. Catilina* to become an incendiary and a perturber of states, to the end he may better fish in droumy waters, and unwrap his fortunes; I (saith he) *if once a fire seize upon my Fortune, will extinguish it not with water but with ruine*; or if any one would convert to his use that of *Lysander*, who was wont to say, *That children are to be deceived with Comfits, and men with Oaths*. With other such corrupt and pernicious Positions of the same impression, whereof (as in all other things,) there are more in number, than of the good and sound. If any (I say) be delighted with such contagious and polluted wisdom, I deny not but with these dispensations from all the laws of charity and integrity, wholly enslaved to the pressing of his own Fortunes, he may be more speedy and compendious in the promoting of his Fortune: but it is in life, as it is in ways, the shortest way is commonly the foulest; and surely the fairer way is not much about.*

Plura velis?
V. Cardani
Proxen sive
Arcana Pol.
ó quam Ar-
cana!

Libro del
Pren.

Cic. pro L.
Muræna.

Plutar. in Ly-
sand.

about. *But it is so far from the mind and purpose of this Discourse that men should apply themselves to these corrupt and crooked Arts, that rather indeed (if they be in their own power, and are able to bear and sustain themselves, and be not carried away with the whirlwind and tempest of Ambition) they ought in the pursuit of Fortune to set before their eyes, not only that general Map of the world, That all things are vanity and vexation of spirit; but also that more particular card and direction, That Being, without well-Being, is a curse, and the greater Being, the greater curse; and that all vertue is most rewarded, and all wickedness most punisht in it self: according as the Poet saith excellently,*

*Quæ vobis, quæ digna, viri, pro talibus ausis
Præmia posse reor solvi? Pulcherrima primùm
Dii Moresq; dabunt vestri.*——

Virg. *Æn.* 9.

And so on the contrary he speaks as truly of the wicked— *atq; eum ulciscuntur mores sui.*—— Nay further, the race of Mortality, whilst their working heads every way toss and diffuse their thoughts how they may best fore-cast and consult *their advancement in the world*, ought, in the midst of these heats, and eager pursuits, to look up to the Divine Judgement, and the Eternal Providence, which oftentimes subverts and brings to nothing the plots of the wicked, and their evil counsels, though never so profound; according to that of sacred Scripture, *He conceived wicked thoughts, travel'd great with mischief, and shall bring forth delusive vanity.* Nay, though men should refrain themselves from iujuries and evil arts; yet *this incessant and Sabbathless aspiring to the steep height of Fortune, pays not the tribute of our time due unto God, who (as we may see) demands and sets apart for himself a Tenth of our substance, and a Seventh of our time.* For it is to small purpose to have an erected face towards heaven, and a groveling spirit upon earth, eating dust as doth the serpent; an opposition which even Heathens could see and censure.

Psal. *vi.* 1.

Atq; affigit humo divina particulam Auræ.

Horat. *Ser.* 2.

And if any man should herein flatter himself, that he resolves to employ his Fortune well, though he should obtain it ill; as was wont to be said of *Augustus Caesar* and *Septimius Severus*, *That either they should never have been born, or else they should never have dyed*, they did so much mischief in the pursuit and ascent of their greatness; and so much good, when they were establish'd; let him take this with him, that such compensation of evil by good, may be allowed after the Fact, but is deservedly condemn'd in the purpose. *Lastly*, it will not be amiss for us, in that swift and hot race towards our fortune, to cool our selves a little, with that elegant conceit of the Emperour *Charls the Fifth*, in his instructions to his Son, *That Fortune hath somewhat of the nature of a woman, that if she be too much wooed, she is the farther off*: but this last remedy is for those whose taste, from some distemper of the mind, is corrupted: let men rather build upon that foundation, which is as a corner-stone of Divinity and Phi-

Scrip. *Geim.*
A.C. 1519.

Mat. vi.

losophy, wherein they almost joyn close by the same assertion of *what should be first sought*; for *Divinity* commands, *First seek the Kingdom of God, and all these things shall be superadded unto you*; and *Philosophy* commands somewhat like this; *Seek first the goods of the mind, and the rest shall be supplied, or no way prejudiced by their absence*. And although this foundation laid by man, is sometimes placed upon the sands, as we may see in *M. Brutus*, who in the last scene of his life, brake forth into that speech,

Te Colui virtus ut Rem, ast Tu Nomen inane es;

Dion. Lib.
xlvii. ex
Poeta. vet.

Yet the same foundation laid by the hand of heaven, is firmly settled upon a Rock. And here we conclude the knowledge of *Advancement of Life*; and withall the general knowledge of *Negotiations*.

CHAP. III.

The Partitions of *the Art of Empire or Government* are omitted; only access is made to two *Deficients*. I. *The knowledge of enlarging the Bounds of Empire*. II. *And the knowledge of universal Justice; or of the Fountains of Law*.

I. **I** Come now to the *Art of Empire*, or the *the knowledge of Civil Government*; under which *House-hold Government* is comprehended, as a *Family* is under a *City*. “In this part, as I said before, I have commanded my self silence: yet notwithstanding I may not so disable my self; but that I could discourse of this part also, perchance not impertinently, nor unprofitably; as one practised by long experience; and by *your Majesty's* most indulgent favours, and no merit of mine own, raised by the degrees of office and honours, to the highest Dignity in the State; and have born that office for four years; and which is more, have been accustomed to *your Majesties* commands and conferences, for the continued space of eighteen years together, (which even of the dullest mould might fashion and produce a State-man) who have spent much time, amongst other knowledges, in Histories and Laws. *All which I report to Posterity, not out of any arrogant ostentation; but because I presume it makes something to the honour and dignity of Learning; that a man born for Letters more than any thing else, and forcibly carried away, I know not by what fate, against the bent of his own Genius, to a Civil active course of life, should yet be advanc'd to so high and honourable charges in the State, and that under so wise a King*. But if my times of leisure shall bring forth hereafter any thing touching the *wisdom of Government*, and state-matters, it will be perchance an Abortive, or an After-birth. In the mean space, now that all Sciences are distributed and ranged, as it were, into their true Forms, left
such

such an eminent place as this should remain empty, I have judg'd it fit to note as *Deficients* two Portions only of *Civil Knowledge*, which pertain, not to the *Secrets of Empire*, but are of a more open and publick nature; and, according to our custom, to propound examples thereof. *Seeing the Arts of Government*, comprehend three sorts of *Politick Duties*: *First*, that a Kingdom or State be conserved: *Secondly*, that it may become happy and flourishing: *Thirdly*, that it may be amplified, and the bounds thereof propagated and extended. Of these duties the *two first* are, for the most, by many, excellently well handled; but the *third* is past over in silence; wherefore we will set this down in the number of *Deficients*, and according to our manner propose examples thereof; calling this part of *Civil Knowledge* *Consulem Paludatum*, or a *knowledge of the enlarging the Bounds of Empire*.

EXAMPLE

Of a Summary Treatise touching the enlarging of the Bounds of Empire.

*
CONSUL
PALUDA-
TUS, sine de
proferendis
Imperii fini-
bus.

THE speech of *Themistocles*, taken to himself, was indeed somewhat uncivil and haughty; but if it had been applied to others, and at large, certainly it may seem to comprehend in it a wise observation, and a grave censure. Desired at a Feast to touch a Lute, he said, *He could not Fidle, but yet he could make a small Town a great City*: These words drawn to a Politick sence, do excellently express and distinguish two differing Abilities, in those that deal in business of Estate. *For if a true survey be taken of all Counsellors and States-men that ever were, and others promoted to publick charge, there will be found (though very rarely) those which can make a small State great, and yet cannot fidle; as on the other side there will be found a great many, that are very cunning upon the Cittern or Lute, (that is in Court-Trifles) but yet are so far from being able to make a small State, great; as their gift lies another way, to bring a great and flourishing Estate to ruine and decay.* And certainly those degenerate Arts and Shifts, whereby many Counsellors and Governours gain both favour with their Masters, and estimation with the vulgar, deserve no better name than *Fidling*; being things rather pleasing for the time, and graceful to the Professors themselves; than tending to the *weal and advancement of the State*, which they serve. There are also (no doubt) *Counsellors and Governours*, not to be despised, which may be held sufficient men, and equal to their charge; able to manage Affairs, and to *keep them from precipices, and manifest inconveniencies*, which nevertheless are far from the *Ability to raise and amplifie an Estate*. But be the work-men what they may be, let us cast our eyes upon the work, that is, *what is the true greatness of Kingdoms and States, and by what means it may be obtained?* An argument fit for great Princes to have perpetually in their hand, and diligently to meditate; to the end that neither by overmeasuring their Forces,

they

Plutar. in
Them.

they lose themselves in vain, and too difficile enterprizes; nor on the other side undervaluing them, they descend to fearful and pusillanimous Counsels. *The Greatness of an Estate in Bulk and Territory, doth fall under measure; the Greatness of Financies and Revenue doth fall under computation.* The number of Citizens and the Pole may be taken by Musters; and the multitude and greatness of Cities and Towns, by Cards and Mapps. But yet there is not any thing amongst Civil Affairs, more subject to error, than a true and intrensic valuation, concerning the Power and Forces of an Estate. *The Kingdom of Heaven is compar'd not to an Acorn or Nut; but to a Grain of Mustard-seed, which is one of the least Grains, but hath in it a property and spirit hastily to get up and spread.* So are there Kingdoms and States in compass and territory very great, and yet not so apt to enlarge their Bounds or Command; and some on the other side that have but a small dimension of stemm, and yet apt to be the Foundations of great Monarchies.

I. *Walled Towns, stored Arcenals and Armories, goodly Races of Horse, Chariots of war, Elephants, Ordinance, Artillery, and the like; all this is but as sheep in a Lions skin, except the Breed and Disposition of the people be stout and war-like.* Nay, number it self in Armies imports not much, where the people is of a faint and weak courage: for, as *Virgil* saith, *It never troubles a Wolf, how many the sheep be.* The Army of the Persians in the Plains of *Arbelu*, was such a vast sea of people, as it did somewhat astonish the *Commanders in Alexander's Army*; who came to him therefore, and wisht him to set upon them by Night, but he answered, *I will not Pilfer the victory*; and the Defeat by that couragious assurance was the more easie. When *Tigranes* the *Armenian*, being encamped upon a hill with an Army of 400000 Men, discovered the Army of the *Romans* being not above 14000 marching towards him, he made himself merry with it, and said; *yonder men are too many for an Ambassage, and too few for a Fight*: but before the sun set he found them enow to give him the chase with infinite slaughter. Many are the examples of the great odds between number and courage. First then a man may rightly make a judgement and set it down for a sure and certain truth, That the principal point of all other which respects the *Greatness of any Kingdom or State, is to have a Race of Military men.* And that is a more trite than true saying, *That Money is the Sinews of War*, where the sinews of mens arms in base and effeminate people are failing: for *Solon* said well to *Cræsus* (when in ostentation he shewed him his gold) *Sir, if any other come that hath any better Iron than you, he will be master of all this Gold.* Therefore let any Prince or State think soberly of their Forces, except their *Militia* of Natives be of Good and Valiant Souldiers: and let Princes on the other side that have Subjects of stout and martial disposition, know their own strength, unless they be otherwise wanting to themselves. As for Mercenary Forces (which is the help in this case where native forces fail) all times are full of examples, whereby it manifestly appears, that whatsoever State or Prince doth rest upon them, *he may spread his Feathers for a time beyond the compass of his nest; but he will mew them soon after.*

B Ecl 7.

Plutar in A.
lex.Plut. in Lu-
cul.Mach. Dif-
corf. sopra
Livio lib. 2.Plut. in Solo-
nc.

2 *The blessing of Judah and Issachar will never meet. That the same Tribe or Nation should be both the Lions whelp, and the Ass between Burdens; neither will it be that a people overlaid with Taxes, should ever become Valiant, and Martial.* It is true that Taxes levied by publick consent of the estate do depress and abate mens courage less; as a man may plainly see in the Tributes of the Low-countries, which they call *Excises*; and in some degree in those contributions which they call *Subsidies* in England. For you must note that we speak now of the Heart and not of the Purse; so that although the same Tribute conferr'd by consent or imposed by command, be all one to the purse, yet it works diversly upon the courage: Therefore set down this too as a Principle, *That no People overcharg'd with Tribute, is fit for Empire.* Gen. XLIX.

3 *Let states and kingdoms that aim at Greatness by all means take heed how the Nobility, and Grantees, and that those which we call Gentle-men, multiply too fast; for that makes the common subject grow to be a Peasant and Base swain driven out of heart, and in effect nothing else but the Noble mans Bond-slaves and Labourers. Even as you may see in Coppice-wood, If you leave your studdles too thick, you shall never have clean underwood, but shrubs and bushes: So in a countrey, if the Nobility be too many, the Commons will be base and heartless, and you will bring it to that, that not the hundredth Pole will be fit for an Helmet; especially as to the Infantry, which is the nerve of an Army; and so there will be great Population and little strength. This which I speak of, hath been in no Nation more clearly confirm'd than in the examples of England and France, whereof England, though far inferiour in Territory and Population, hath been nevertheless always an overmatch in Arms; in regard the middle-people of England make good Souldiers, which the Peasants of France do not. And herein the devise of Henry the Seventh King of England (whereof I have spoken largely in the History of his life) was profound and admirable, in making Farms and Houses of Husbandry of a standard; that is, maintain'd with such a Proportion of land unto them, as may breed a subject to live in convenient plenty, and to keep the Plough in the hands of the Owners, or at least usu-fructuary, and not hirelings and Mercenaries; and thus a Countrey shall merit that Character where- by Virgil expresses ancient Italy,* Histor. Hen. VII.

Terra potens Armis, atque ubere Gléba.

En. 3.

Neither is that state which is almost peculiar to *England*, (and for any thing I know, hardly to be found any where else, except it be perhaps in *Poland*) to be pass'd over; I mean the state of Free-servants and Attendants upon Noble men and Gentle-men; of which sort, even they of inferiour condition, do no ways yield unto the *Yeomanry*, for *Infantry*. And therefore out of all question the Magnificence and that Hospitable Splendor, the Household servants, and great Retinues of Noble men and Gentle-men, receiv'd into custom in *England*, doth much conduce unto *Martial Greatness*: whereas on the other side, the close, reserved and contracted living of Noble men, causeth a Penury of *Military Forces*:

4. By all means it is to be procured, that the Trunk of Nebuchadnezzar's Tree of Monarchy, be great enough to bear the Branches and the Boughs; that is, that the number of Natural Subjects to the Crown or State, bear a sufficient proportion for the over-topping the stronger Subjects. Therefore all States that are liberal of Naturalization towards strangers, are fit for the Greatness of Empire. For it is a vain opinion to think that a handful of people, can with the greatest courage and Policy in the world, keep and repress under the laws of Empire, too large and spacious extent of Dominion; this may hold for a time, but it will fail suddenly. The Spartans were a sparing and nice People in point of Naturalization, whereby while they kept their compass, they stood firm and assured; but when they began to spread and enlarge their Dominion, and that their boughs, multiplied by strangers, were becoming too great for the stemm of the Spartans, they became a wind-fal upon the sudden. Never any State was in this point so open to receive strangers into their Body, as were the Romans; therefore their Fortune seconded their wise institution, for they grew to the greatest Monarchy in the world. Their manner was to grant Naturalization (which they called *Jus Civitatis*) and to grant it in the highest degree; that is, not only *Jus Commercii*; *Jus Connubii*, *Jus Hereditatis*; but also *Jus Suffragii*, and *Jus Petitionis sive Honorum*; and this not to singular persons alone, but likewise to whole families, yea to Cities, and sometimes to whole Nations. Add to this, their custom of Plantation of Colonies, whereby the Roman Plants were removed into the soil of other Nations: and putting both constitutions together, you will say, that it was not the Romans that spread upon the world; but it was the world that spread upon the Romans; which was the securest way of Enlarging the Bounds of Empire. I have marvelled sometimes at Spain, how they clasp and govern so large Dominions, with so few natural Spaniards: but surely the whole compass of Spain, is a very great body of a Tree; being it contains far more ample Territories, than Rome or Sparta at their first risings. And besides, though the Spaniards have not had that usage to Naturalize liberally; yet they have that which is next to it, that is, To employ, almost indifferently, all Nations in their Militia of Ordinary souldiers; yea and sometimes they confer their highest commands of war, upon Captains that are no natural Spaniards: nay it seems, not long ago, they have begun to grow sensible of this want of Natives, and to seek a Remedy, as appears by the Pragmatical Sanction published this year.

5. It is most Certain that sedentary and within door Mechanical Arts; and Delicate Manufactures (that require rather the Finger, than the Arm,) have in their nature a contrariety to a military Disposition. And generally all warlike People are a little idle; and love danger better than travail: neither must they be too much Broken of it, if we will have their spirits preserv'd in vigor. Therefore it was great advantage in the ancient states of Sparta, Athens, Rome, and others, that they had the use, not of Free-men, but of Slaves, which commonly did rid those Manufactures: but the use of Slaves since the receiving of the Christian Law, is, in greatest part abolished. That which comes neerest to this custom, is to leave those Arts chiefly to strangers, which

which for that purpose are to be allured, or at least the more easily to be received. The *vulgar Natives* should consist of three sorts of men; that is, of *Tillers of Ground*; *Free-servants*; and *Handy-crafts-men* of strong and *Manly Arts*, as *Smiths*, *Masons*, *Carpenters*, &c. not reckoning professed *Souldiers*,

6 *But above all, for the Greatness of Empire, it imports most; that a Nation do profess Arms as their glory, Principal study, and chiefest Honour.* For the things which we formerly have spoken of, are but *Habilitations* towards Arms; and to what purpose is *Habilitation* without endeavour to produce it into *Act*? *Romulus*, after his death, (as they report or feign) sent a present to the *Romans*, that above all they should intend Arms, and then they should prove the greatest Empire of the World. The whole *Fabrick of the State of Sparta*, was, industriously (though not so wisely) compos'd and built to that scope and end. The *Persians* and *Macedonians* had the same usage, but not so constant and lasting. The *Britans*, *Galls*, *Germans*, *Goths*, *Saxons*, *Normans*, (for a flash of time) gave themselves chiefly to Arms. The *Turks* not a little instigated thereto by their Law, retain the same discipline at this day, (though as it is now practis'd) with great declination of their *Militia*. Of *Christian Europe* they that retain and profess it, are in effect only the *Spaniards*. But it is so liquid and manifest, that every man profiteth most, in that he most intendeth, that it needs not to be stood upon. It is enough to point at it; That no Nation which doth not profess Arms, and practise *Military Arts*, making it their principal study and occupation, may ever hope to have any notable greatness of Empire, fall into their mouths: and on the other side, it is a most certain Oracle of time, That those Nations that have continued long in the profession and study of Arms (as the *Romans* and *Turks* principally have done, for the propagation of Empire,) work wonders. Nay those that have flourish'd for the glory of Arms, but for the space only of one age; have commonly attain'd that *Greatness of Dominion*, in that one age, which maintained them long after, when their profession and exercise of Arms hath grown to decay.

7 *Incident to this Precept is; for a state to have such laws and customs which may readily reach forth unto them just occasions, or at least pretences of taking Arms.* For there is that apprehension of Justice imprinted in the nature of men, that they enter not upon wars (whereof so many calamities do ensue) but upon some, at the least specious grounds and Quarrels. The *Turk* hath at hand for cause of war the Propagation of his law and sect; a quarrel that he may always command. The *Romans* though they esteemed the extending of the Limits of their Empire, to be great honour to their Generals, when it was done; yet for that cause alone, to Propagate their bounds, they never undertook a war. Therefore let a nation that pretends to Greatness, and aspires to Empire, have this condition, that they have a quick and lively sense of any wrongs either upon Borderers, Merchants, or publick Ministers; and that they sit not too long upon the first provocation. Again, Let them be prest, and Active to send Aids and Succours to their Allies and confederates; as it ever was with the *Romans*: insomuch

as if a hostile invasion were made upon a confederate, which also had leagues Defensive with other states, and the same implored their ayds severally; the Romans would ever be the formost; and leave it to no other to have the Honour of the Assistance. *As for the wars which were anciently made for a kind of conformity, or tacite correspondency of Estates, I do not see upon what Law they are grounded. Such were the wars undertaken by the Romans, for the liberty of Grecia: such were those of the Lacedemonians and Athenians, to set up or pull down Democracies and Oligarchies: such are the wars made sometimes by States, and Princes, under pretence of protecting Forreign subjects, and freeing them from Tyranny and oppression, and the like. Let it suffice for the present point that it be concluded, That no estate expect to be Great, that is not instantly awake, upon any just occasion of Arming.*

8 *No body can be healthful without exercise, neither Natural Body nor Politick: and certainly to a Kingdom or Estate a just and honourable war is in place of a wholesome exercise. A Civil war indeed, is like the heat of a Fever, but a Forreign is like the heat of Exercise, and serves to keep the body in health: for in a sloathful and drowle Peace, both courages will effeminate, and Manners corrupt. But howsoever it be for the Happiness of any Estate, without all question, for Greatness, it maketh, to be still for the most part in Arms: and a veteran Army (though it be a chargeable Business) always on foot, is that which commonly gives the Law, or at least the Reputation amongst all neighbour-states. This is notably to be seen in Spain, which had in one part or other a veterane Army almost continually, now by the space of six-score years.*

9 *To be Master of the Sea, is an Abridgement of a Monarchy, Cicero writing to Atticus of Pompeius his preparation against Caesar, saith; Consilium Pompeii, planè Themistocleum est; putat enim, qui mari Potitur, eum Rerum potiri. And without doubt Pompey had tyred out and broken Caesar, if upon a vain confidence he had not left that way. We see from many examples the great effects of Battels by Sea: The Battel of Actium decided the Empire of the world: the Battel of Lepanto put a ring in the nose of the Turk: Certainly it hath often fallen out that Sea-fights have been final to the war; but this is when Princes or States have set up their Rest upon those Battels. Thus much is without all doubt, that he that commands the Sea, is at great liberty; and may take as much and as little of the war as he will: whereas on the Contrary, those that be strongest by Land, are many times nevertheless in great straits. But at this day and with us of Europe, the vantage of strength at Sea (which is indeed one of the principal Dowries of this Kingdom of Great Brittain) is in the sum of Affairs of great import: both because most of the Kindoms of Europe, are not merely Inland, but girt with the Sea most part of their compass, and because the Treasures and Wealth of both Indies, seems in great part but an Accessary to the command of the Seas.*

10. *The wars of latter Ages seem to be made in the dark, in respect of the Glory and Honour which reflected upon Military men from the wars in ancient times.* We have now perchance, for Martial encouragement, some degrees and orders of Chivalry, which nevertheless are conferred promiscuously upon Soldiers, and no Soldiers; and some Pedegrees of Families perhaps upon Scutchions; and some publick Hospitals for emerited and maim'd Soldiers, and such like things. But in ancient times, the *Trophy* erected upon the place of the Victory; the *Funeral Laudatives* and stately *Monuments* for those that died in the Wars; *Civick Crowns*, and *Military Garlands* awarded to particular persons; the *stile of Emperor*, which the greatest Kings of the World after, borrowed from *Commanders in War*; the *solemn Triumphs* of the *Generals* upon their return, after the Wars were prosperously ended; the great *Donatives* and *Largeesses* upon the disbanding of the Armies: these, I say, were matters so many and great, and of such glorious lustre and blaze in eyes of the world, as were able to create a Fire in the most frozen breasts, and to inflame them to War. But above all, that of the *Triumph* amongst the Romans, was not a matter of mere pomp, or some vain spectacle or pageants; but one of the wisest and noblest institutions that ever was: for it contain'd in it three things, *Honor and Glory to the Generals*; *Riches to the Treasury out of the Spoils*; and *Donatives to the Army*. But the *Honours of Triumph* perhaps were not fit for Monarchies, except it be in the person of the King himself, or of the Kings Sons; as it came to pass in the times of the *Roman Emperors*, who did impropriate the *Honor of Triumph* to themselves, and their Sons; for such Wars as they did achieve in Person, and left only by way of indulgence, *Garments* and *Triumphal Ensigns* to the *Generals*.

§ But to conclude these discourses, (*There is no man* (as sacred Scripture testifies) *that by-care taking can add a cubit to his stature*, in this little Model of Man's body; but in the great Frame of *Kingdoms* and *Common-wealths*, it is in the Power of Princes and Estates, to add *Amplitude* and *Greatness* to their *Kingdoms*. For by introducing such ordinances, constitutions and customs, as we have now propounded, and others of like nature with these, they may sow *greatness* to Posterity and Future Ages. But these counsels are seldom taken into consideration by Princes; but the Matter is commonly left to fortune to take its chance.

§ And thus much for the points that, for the present, have offered themselves to our consideration touching *the Enlarging of the Limits of a State or Kingdom*. But to what end is this contemplation, seeing of all Imperial Sovereignties in this World, the *Roman Monarchy* (as it is believed) was to be the last? but that, being true to our own Design, nor any where declining out of the way (in as much as *the Amplification of a Kingdom* was, amongst the three Politick Duties; the third) we could not altogether pass it over untouched. *There remains* now another *Deficient* of the two we have set down; that is, of *Universal Justice*, or *the Fountains of Law*.

II. All they which have written of *Laws*, have handled that Argument either as *Philosophers*, or as *Lawyers*, and none as *Statesmen*. As for *Philosophers*, they propound many things goodly for discourse, but remote from use. For the *Lawyers*, they are manci- pated and wholly devoted every one to the *Laws* of the State where they live, or to the *Placits* of the *Emperial* or *Pontifical* *Laws*, and cannot use impartial and sincere judgement; but discourse as out of *Gives* and *Fetters*. Certainly this kind of knowledge pertains properly to *States-men*; who can best discern what humane society is capable of; what makes for the weal of the publick; what natural equity is; what the law of Nations, the custom of Countries, the divers and different forms of States and Republicks; and therefore are able to discern and judge of *Laws*, from the Principles, both of natural Equity and Policy. Wherefore the business in hand is, to have recourse unto, and make enquiry of the *Fountains* of *Justice*, and of *Publick* utility, and in every part of Law to represent a kind of *Character* and *Idea* of that which is just; by which general mark and direction he that shall intend his mind and studies that way, may try and examine the several laws of particular Kingdoms and Estates; and from thence endeavour an emendation. Wherefore after our accustomed manner we will, in one Title propound an example thereof.

EXAMPLE

Of a Treatise touching *Universal Justice*, or the *Fountains* of *Law* in one Title by way of *Aphorism*.

*
IDEA JUSTI-
TIÆ UNI-
VERSALIS
sive de Fon-
tibus Juris.

THE PROEM.

APHORISM I.

IN Civil society either *Law* or *Power* prevails; for there is a *Power* which pretends *Law*, and some *Law* tastes rather of *Might* than *Right*. Wherefore there is a threefold *Fountain* of *Injustice*; Mere *Power*; *Cunning Illaqueation* under colour of *Law*; and the *Harshness* of *Law* it self.

APHORISM II.

The force and efficacy of *Private Right* is this. He that doth a wrong, by the *Fact*, receives *Profit* or *Pleasure*; by the *Example*, incurs *Prejudice* and *Peril*: others are not Partners with him in his *Profit* or *Pleasure*; but they take themselves interressed in the *Example*; and therefore easily combine and accord together, to secure themselves by *Laws*, lest injuries by turns seise upon every particular. But if thorough the corrupt humour of the times, and the generality of guilt, it fall out, that to the greater number and the more Potent, danger is rather created than avoided, by such a *Law*; *Faction* disanuls that *Law*, which often comes to pass.

APHO-

APHORISM III.

Private Right is under the Protection of *Publick Law*: for *Laws* are for the People; *Magistrates* for *Laws*; and the authority of *Magistrates* depends upon the Majesty of Empire, and the form of Policy; and upon *Laws Fundamental*: wherefore if this Part be sound and healthful, *Laws* will be to good purpose; if otherwise, there will be little security in them.

APHORISM IV.

Yet notwithstanding, the end of *Publick Law* is not only to be a Guardian to *Private Right*, lest that should any way be violated; or to repress Injuries: but it is extended also unto Religion, and Arms and Discipline, and Ornaments, and Wealth, and finally to all things which any way conduce unto the prosperous Estate of a Commonwealth.

APHORISM V.

For the End and Aim at which *Laws* should level, and whereto they should direct their Decrees and Sanctions, is no other than this *That the People may live happily*: This will be brought to pass, if they be rightly train'd up in *Piety* and *Religion*, if they be *Honest* for Moral conversation; secur'd by *Arms* against foreign enemies; munited by *Laws* against seditions, and private wrongs; *Obedient* to Government and *Magistrates*; *Rich and flourishing* in Forces and wealth: but the Instruments and sinews of all Blessings are *Laws*.

APHORISM VI.

And this end the best *Laws* attain; but many *Laws* miss this mark: for there is a great difference, and a wide distance in the comparative valure and virtue of *Laws*; for some *Laws* are excellent, some of a middle temper; others altogether corrupt. We will exhibit according to the measure of our judgement, some certain *Laws* (as it were) of *Laws*, whereby information may be taken, what in all *Laws* is well or ill set down, and Establish'd.

APHORISM VII.

But before we descend to the Body of *Laws* in particular; we will briefly touch the Merit and Dignities of *Laws* in general. A *Law* may be held good, that is, *Certain in the intimation*, *Just in the Precept*, *Profitable in the Execution*, *Agreeing with the Form of Government in the present State*; and begetting vertue in those that live under them.

TITLE. I.

Of the first Dignity of Laws, that they be Certain.

APHORISM VIII.

Certainty is so Essential to a Law, as without it a Law cannot be Just; *Si enim incertam vocem det Tuba, quis se parabit ad Bellum?* So if the Law give an uncertain sound, who shall prepare himself to obey? A Law then ought to give warning before it strike: and it is a good Rule, *That is the best Law which gives least liberty to the Arbitrage of the Judge,* which is that, the Certainty thereof affecteth.

APHORISM IX.

Uncertainty of Laws is of two sorts; one where *no Law is prescribed*; the other, *when a Law is difficile and dark*: we must therefore first speak of *Causes omitted in the Law*; that in these likewise there may be found some Rule of Certainty.

Of Cases omitted in Law.

APHORISM X.

THE narrow compass of man's wisdom, cannot comprehend all cases which time hath found out; and therefore *Cases omitted, and new* do often present themselves. In these cases there is applied a threefold remedy, or supplement; either by a proceeding upon *like Cases*, or by the use of *Examples*, though they be not grown up into Law; or by *Jurisdictions*, which award according to the Arbitrement of some Good Man, and according to sound judgement; whether they be *Courts Pretorian*, or of *Equity*, or *Courts Censorian* or of *Penalty*.

Of Proceeding upon like Presidents; and of the Extensions of LAWS.

APHORISM XI

IN *Cases omitted*, the Rule of Law is to be deduced from *Cases of like nature*; but with Caution and Judgement. Touching which these Rules following are to be observed. *Let Reason be fruitful; Custom be barren, and not breed Cases.* Wherefore whatsoever is accepted against the *Sence and Reason* of a Law; or else where the *Reason* thereof is not apparent, the same must not be drawn into consequence.

APHORISM XII.

A singular Publick Good doth necessarily introduce *Cases pre-terminated*. Wherefore when a Law doth notably and extraordinarily respect, and procure the profit and advantage of a State, *Let the interpretation be ample and extensive*.

APHORISM XIII.

It is a hard Case to torture Laws, that they may torture Men. We would not therefore *that Laws Penal, much less Capital, should be extended to new Offences*: yet if it be an old Crime, and known to the Laws, but the Prosecution thereof falls upon a new Case, not foreseen by the Laws; we must by all means depart from the *Placits of Law*, rather than that offences pass unpunisht.

APHORISM XIV.

In those statutes, which the *Common Law* (specially concerning cases frequently incident, and are of long continuance) doth absolutely repeal; *We like not the proceeding by similitude, unto cases omitted*: for when a State hath for a long time wanted a *whole Law*, and that, in *Cases exprest*; there is no great danger if the *cases omitted* expect a remedy by a *new statute*.

APHORISM XV.

Such constitutions as were manifestly, *the Laws of Time*, and sprung up from emergent Occasion, then prevailing in the *Common-wealth*; the state of times once changed, they are reverenc'd enough, if they may conserve their authority within the limits of their own proper cases: and it were preposterous any way to extend and apply them to *Cases omitted*.

APHORISM XVI.

There can be no *Sequel of a Sequel*, but the extension must be arrested within the limits of *immediate Cases*: otherwise we fall by degrees upon *unresembling Cases*; and the subtilty of wit will be of more force, than the Authority of Law.

APHORISM XVII.

In Laws and Statutes of a *compendious stile*, extension may be made more freely; but in those *Laws* which are punctual in the *enumeration of Cases* Particular, more verily: for as *exception* strengthens the force of a *Law*, in *Cases not excepted*; so *enumeration* weakens it, in *Cases not enumerated*.

APHORISM XVIII.

An *Explanatory Statute* dams up the streams of a *Former Statute*; neither is the extension received afterwards, in the one or the other: for their is no *super-extension* can be made by a *Judge*, where once an *extension* hath begun to be made by a *Law*.

APHORISM XIX.

The *Form* of Words, and Acts of Courts, doth not admit an *Extension* upon like Cases; for that looseth the nature of *Formality*, which departs from Custom to Arbitrement: and the introduction of *new Cases* imbaseth the Majesty of the *old*.

APHORISM XX.

Extension of Law is aptly applied unto *Cases Post-nate*, which were not existent in nature, when the Law was enacted: for where the Case could not be exprest, because there were none such extant; a *Case omitted* is accepted for a *Case exprest*, if the reason be the same. So for *Extension of Laws in Cases omist*, let these Rules suffice. Now we must speak of the use of *Examples*.

Of Presidents, and the use thereof.

APHORISM XXI.

Now it follows we speak of *Examples*, from which *Right* is infer'd, where *Law* is deficient: as for *Custom*, which is a kind of *Law*; and for *Presidents* which by frequent Practice are grown into Custom, as into a *Tacite Law*; we will speak in due place. But now we speak of *Examples* or *Presidents*, which rarely and sparsedly fall out; and are not yet grown up to the strength of a *Law*; namely when, and with what caution a *Rule of Law* is to be derived from them, where *Law is Deficient*.

APHORISM XXII.

Presidents must be derived from *Good* and *Moderate*; and not from *Bloudy*, *Factions*, or *Dissolute Times*: for *Examples* fetch from such times, are a Bastard issue, and do rather Corrupt, than Instru&.

APHORISM XXIII.

In *Examples* the more *Modern*, are to be reputed the *more safe*: for that which was but lately done, and no inconvenience ensued thereon, why may it not be done again? Yet nevertheless *Recent Examples* are of less Authority: and if perchance it so fall out, that
a Re-

a Reformation must be made, *Modern Presidents* taste more of their own *Times*, than of right *Reason*.

APHORISM XXIV.

But *more Ancient Presidents* must be received with caution, and choice: for the Revolution of an Age altereth many things; so as what might seem *Ancient* for Time, the same through perturbation, and inconformity to the present Age, may be altogether *New*. Wherefore the *examples* of a *middle time* are best; or of such an *Age*, as best sorts with the *Present Times*; which now and then the Time further off better represents, than the *Time close at hand*.

APHORISM XXV.

Keep your self within, or rather on this side the *limits of an Example*, and by no means surpals those bounds: for where there is no *Rule of Law*, all ought to be entertain'd with jealousy: wherefore here, as in obscure Cases, follow that which is least doubtful.

APHORISM XXVI.

Beware of *Fragments* and *Compend*s of *Examples*; and view the *Examples* entire, and every particular passage thereof: for if it be inequitable and unreasonable before a perfect comprehension of the whole *Law*, to make a judgement upon a Part, or Paragraph thereof; much more should this Rule hold in *Examples*, which unless they be very square and proper, are of doubtful use and application.

APHORISM XXVII.

In *Examples* it imports very much thorough what hands they have pass'd, and have been transacted; for if they have gone current with *Clerks* only and *Ministers of Justice*, from the course of some Courts, without any notice taken thereof by *superiour Counsellors*; or with the *Master of Errors*, the *People*; they are to be rejected and little esteemed of: but if they have been such precise *Presidents* to *Counsellors of Estate*, *Judges* or *Principal Courts*, as that it must needs be, that they have been strengthened by the tacite approbation, at least, of *Judges*; they carry the more Reverence with them.

APHORISM XXVIII.

Presidents that have been publish'd, however less practis'd, which being debated and ventilated by mens discourses and disceptations have yet stood out unargued, are of greater Authority: but such as have remained buried, as it were, in *Closets* and *Archives*, are of less: for, *Examples* like waters are most wholesome in the running stream.

APHORISM XXIX.

Examples that refer to *Laws*, we would not have them drawn from writers of *History*, but from publick *Acts*, and more diligent *Traditions*: for it is an infelicity familiar even with the best *Historians*, that they pass over *Laws* and *Judicial proceedings* too slightly: and if perhaps they have used some diligence therein, yet they vary much from *Authentic Constitutions*.

APHORISM XXX.

An *Example*, which a contemporary Age, or a time neereſt unto it hath repeal'd, ſhould not eaſily be taken up again, though the like caſe ſhould afterwards enſue: nor makes it ſo much for an *Example*, that men have ſometimes uſed it; as it makes againſt an *example*, that upon experience, they have now relinquish'd it.

APHORISM XXXI.

Examples are admitted into *Counſils*; but do in like manner preſcribe or command; therefore let *them* be ſo moderated, that the Authority of the time paſt, may be bow'd and plied to the practice of the time preſent. And thus much concerning information from *Preſidents* where *Law* is Deficient. Now follows that we ſpeak of *Courts Prætorian* and *Cenſorian*; *Courts of Equity*, and of *Penalty*.

Of Courts Prætorian and Cenſorian.

APHORISM XXXII.

Let there be *Courts* and *Juriſdictions*, which may define according to the Arbitrement of ſome Good man, and according to ſound judgement: for the *Law* (as is obſerv'd before) cannot provide for *all Caſes*; but is fitted to ſuch occurrences as commonly fall out; and *Time* (as was ſaid by the *Ancients*) is a moſt wiſe Thing, and daily the *Auctor* and *Inventor* of new *Caſes*.

APHORISM XXXIII.

New *caſes* fall out both in *Matters Crimnal*, which have need of *Penalty*, and in *Matters Civil*, which have need of *Relief*: the *Courts* which reſpect the Former, we call *Cenſorian*; which reſpect the latter, *Prætorian*.

APHORISM XXIV,

Let the *Cenſorian Courts of Juſtice*, have *jurisdiction* and *Power* not only of *puniſhing new offences*; but alſo of *increaſing Penalties* aſſigned by

by the Laws for *old crimes*, if the cases be hainous and enormous, so they be not *Capital*: for a Notorious guilt, as it were, a new Case.

APHORISM XXXV.

In like manner, let *Prætorian Courts of Equity*, have power to *qualify the Rigor of Law*; as also of *supplying the Defects of Law*: for if a Remedy ought to be extended to him whom *the Law hath past by*; much more to him whom *it hath wounded*.

APHORISM XXXVI.

Let these *Censorian* and *Prætorian Courts* be by all means limited within *Cases Hainous* and extraordinary; and not invade ordinary Jurisdictions; lest peradventure the matter extend to the *supplantation*, rather than the *supplement of Law*.

APHORISM XXXVII.

Let these *Jurisdictions* reside only in the *Highest Courts of Judicature*, and not be communicated to *Courts inferior*: For the Power of *extending*, or *supplying*, or *Moderating Laws*, little differs from the Power of *Making* them.

APHORISM XXXVIII.

But let not these *Courts* be assigned over to *one man*, but consist of *Many*: Nor let the Decrees thereof issue forth with silence, but let the Judges alleage Reasons of their sentence, and that openly in the Audience of the Court; that what is free in the Power, may yet in the same and reputation be confined.

APHORISM XXXIX.

Let there be no *Rubrics of Bloud*; neither Define of *Capital crimes* in what Court soever, but from a known and certain Law; for God himself first denounced Death, afterwards inflicted it. Nor is any man to be put to death, but he that knew before-hand, *that he sinned against his own life*.

APHORISM XL.

In *Courts of Censure*, give way to a third Trial, that a necessity be not imposed upon Judges of absolving or of condemning, but that they may pronounce a *Non liquet*; so in like manner, let *Laws Censorian*, not only be a *Penalty*, but an *Infamy*, that is, which may not inflict a punishment, but either end in admonition; or else chastise the delinquent with some light touch of *Ignominy*, and as it were, a blushing shame.

APHORISM XLII.

In *Censorian Courts* let the *first aggressions*, and the middle Acts of Great offences, and wicked attempts be punish't; yea although they were never perfectly accomplish't: and let that be the chiefest use of *those Courts*; seeing it appertains to *severity*, to punish the first approaches of wicked enterprizes; and to *Mercy* to intercept the perpetration of them by correcting middle Acts.

APHORISM XLIII.

Special regard must be taken, that in *Pretorian Courts*, such Cases be not countenanc'd, which the Law hath not so much pretermitted, as slighted as Frivolous; or, as odious, judg'd unworthy redress.

APHORISM XLIV.

Above all it most imports the *Certainty of Laws*, that Courts of *Equity* do not so swell and overflow their banks, as under pretence of *mitigating the Rigor of Laws*, they do dissect or relax the strength and sinews thereof, by drawing all to *Arbitrement*.

APHORISM XLV.

Let not *Pretorian Courts* have Power to Decree against *express statute*, under any pretence of equity: for if this should be permitted, a *Law-interpreter*, would become a *Law-maker*; and all matters should depend upon *Arbitrement*.

APHORISM XLVI.

Some are of opinion, that the Jurisdiction of Defining according to *Equity and Conscience*; and that other, which proceeds according to *strict Law*; should be deputed to the *same Courts*; but others say to *several*: by all means let there be a *separation of Courts*; for there will be no *distinction of Cases*, where there is *commixtion or Jurisdictions*; but you shall have *Arbitrement* incroach upon, and at last, swallow up *Law*.

APHORISM XLVII.

The *Tables of the Pretors* amongst the Romans came in use upon good ground: in these the *Pretor* set down and publish't afore-hand, by what form of Law he would execute Judicature. After the same example, Judges in *Pretorian Courts*, should propound *certain Rules* to themselves (so far as may be) and openly publish them: for that is the *best Law*, which gives *least liberty to the Judge*; he the *best Judge* that takes *least liberty to himself*. But of these *Courts* we shall speak more at large, when we come to the Title *De Judiciis*; we now speak of them

in passage only, so far as they clear and supply that which is omitted by the Law.

Of the Reflective Aspect, or Reference of Laws
one to another.

APHORISM XLVII.

There is likewise another kind of *supplement of Cases omitted*; when one Law falleth upon another, and withall draws with it *Cases pretermitted*. This comes to pass in *Laws or Statutes*, which (as the usual expression is) look back or *reflect* one upon another. *Laws* of this nature, are rarely and with great Caution to be alleag'd: for we like it not, to see a *two Fac'd Janus in Laws*.

APHORISM XLVIII.

He that goes about to elude and circumvent the words and sentence of Law by *Fraud*, and *captious Fallacies*, deserves in like manner to be himself insnar'd by a succeeding Law: wherefore in case of *subtil shifts* and *sinister devises*, it is very meet that laws should look back upon and *mutually support* one another, that he who studies evasions, and evasion of *Laws Present*, may yet stand in awe of *future Laws*.

APHORISM XLIX.

Laws which strengthen and establish the true *intentions of Records and Instruments*, against the *Defects of Forms and Solemnities*, do rightly comprehend matters past: for the greatest inconvenience in a law that *refers back*, is, that it disturbeth: But these *confirmatory Laws*, respect the peace and settling of those cases, which are transacted and determin'd; yet we must take heed that *cases already adjudg'd*, be not *revers'd or violated*.

APHORISM L.

We must be very careful that, not those *Laws* alone, be thought to respect *things past*, which *invalid cases already decided*; but those also which *prohibite and restrain future cases* necessarily connext with *matters past*. As for example, if a Law should interdict some kind of *Trades-men* the vent of their commodities for *hereafter*: the Letter of this Law is for the *future*; but the sence and meaning takes hold of the *time past*; for now it is not warrantable for such persons to get their living *this way*.

APHORISM LI.

Every *Declaratory Law*, although there be no mention of *time past*; yet by the force of the Declaration, it is by all means to be extended

tended to *matters past*: for the *Interpretation* doth not then begin to be in force, when it is *declared*; but is made *contemporary* with the *Law it self*. Wherefore never enact *declaratory Laws*; but in case where *Laws* may in equity refer and *look back* one upon another. *And here we have done with that part which handles the Incertitude of Laws, where no Law is found: It remains, we now speak of that other part, namely where there is a Law extant, but such a one as is Perplext and Obscure.*

Of the Obscurity of Laws.

APHORISM LII.

Obscurity of *Laws* springs from four causes: either from the excessive *accumulation of Laws*, specially where there is a mixture of *Obsolete Laws*: Or from an *ambiguous*, or not perspicuous and *delucid description of Laws*: or from the *manner of expounding Law*, either altogether neglected, or not rightly pursued: or lastly, *contradiction and incertainty of judgments*.

Of the Excessive Accumulation of Laws.

APHORISM LIII.

The Prophet saith, *Pluet super eos Laqueos*; now there are no worse snares than the snares of *Laws*, specially *Penal*; if they be *immense for number*; and through the alterations of times *unprofitable*; they do not present a *torch*, but spread a *net to our feet*.

APHORISM LIV.

There are two ways in use of making a *new Statute*; the one establisheth and strengthens the *Former Statute* about the same subject; and then adds and changes some things: the other abrogates and cancels what was *Decreed before*, and substitutes *de integro*, a *new and uniform Law*. The latter way we approve: for by the former way *Decrees* become *complicate and perplext*; yet what is undertaken is indeed pursued, but the *Body of Law* is in the mean time corrupted. But certainly the more diligence is required in the latter, where the *Deliberation* is of the *Law it self*; that is, the *Decrees* heretofore made, are to be searched into, and duely weighed and examin'd, before the *Law* be publisht: but the chief point is, that by this means the *Harmony of Laws* is notably advanced for the future.

APHORISM LV.

It was a custom in the State of *Athens*, to delegate six persons, for to revise and examine every year the *contrary Titles of Law*, which they

they called *Anti-nomies*; and such as could not be reconciled, were propounded to the people, that some *certainty* might be defined touching them. After this example, let such in every State, as have the Power of making Laws, review *Anti-nomies* every third or fifth year, or as they see cause. And these may be first searcht into, and prepar'd by Committees assign'd thereto, and after that exhibited to Assemblies; that so what shall be approv'd, may by suffrages be establisht and settled.

APHORISM LVI.

And let there not be too scrupulous and anxious pains taken in reconciling *Contrary Titles of Law*, and of Salving (as they term it) all points by subtil and studied Distinctions. For this is the Web of Wit; and however it may carry a shew of Modesty and Reverence, yet it is to be reckoned in the number of things Prejudicial; as being that which makes the whole body of Law ill-sorted, and incoherent. It were far better that the worst *Titles* were cancel'd, and the rest stand in force.

APHORISM LVII.

Obsolete Laws, and such as are grown out of use, as well as *Anti-nomies*, should be propounded by delegates, as a part of their charge to be repeal'd: for seeing express Statute cannot regularly be voided by *Disuse*; it falls out that through a Disestimation of *Obsolete Laws*, the authority of the rest is somewhat embas'd; and *Mezentius* Torture ensues; that *Laws alive are killed with the embracements of Laws dead*: but above all beware of a Gangreen in Laws.

APHORISM LVIII.

So likewise for *Obsolete Laws* and Statutes, and such as are not lately publisht; let the *Pretorian Courts* have power: in the mean space, to define contrary to them: for although it hath been said not impertinently, *no man ought to make himself wiser than the Laws*; yet this may be understood of Laws, when they are awake, not when they are asleep. On the other side, let not the more *recent Statutes*, which are found prejudicial to the *Law-publick*, be in the Power of the Judges; but in the Power of Kings and Counsellors of Estate, and supreme Authorities for Redress, by suspending their execution through Edicts and Acts; until Parliamentary Courts, and such High Assemblies meet again, which have power to abrogate them; lest the safety of the Common-wealth should in the mean while be endanger'd.

Of New Digests of Laws.

APHORISM LIX.

BUT if *Laws accumulated upon Laws*, swell into such vast volumes, or be obnoxious to such confusion, that it is expedient to revise them anew, and to reduce them into a sound and solid body; intend it by all means; and let such a work be reputed an Heroical noble work; and let the Authors of such a work, be rightly and deservedly ranckt in the number of the *Founders and Restorers of Laws*.

APHORISM LX.

This *Purging of Laws*, and the contriving of a new Digest is five ways accomplisht. *First*, let *Obsolete Laws*, which *Justinian* terms *old Fables* be left out. *Secondly*, let the most approved of *Antinomies* be received; the contrary abolisht. *Thirdly*, let all *Coincident Laws*, or *Laws* which import the same, and are nothing else but repetitions of the same thing, be expung'd; and some one, the most perfect among them, retain'd instead of all the rest. *Fourthly*, if there be any *Laws which determine nothing*, but only propound Questions, and so leave them undecided, let these likewise be cashier'd. *Lastly*, let *Laws too wordy* and too prolix be abridged into a more narrow compass.

APHORISM LXI.

And it will import very much for use, to compose and sort apart in a new *Digest of Laws*, Law recepted for *Common Law*, which in regard of their beginning are time out of mind; and on the other side *Statutes* superadded from time to time: seeing in the delivery of a Juridical sentence, the interpretation of *Common Law*, and *Statute-Laws* in many points is not the same. This *Trebonianus* did in the Digests and Code.

APHORISM LXII.

But in this *Regeneration* and *new structure of Laws*, retain precisely the *Words and the Text of the Ancient Laws*, and of the Books of Law; though it must needs fall out that such a collection must be made by centoes and smaller portions: then sort them in order. For although this might have been performed more aptly, and (if you respect right reason) more truly, by a *New Text*, than by such a consarcination; yet in *Laws*, not so much the *style and description*, as *Authority*, and the Patron thereof, *Antiquity*, are to be regarded: otherwise such a work might seem a *scholastick business and method*, rather than a *body of commanding Laws*.

APHORISM LXIII.

In this *New Digest of Laws*, upon good advisement a caveat hath been put in; that the *Ancient volumes of Law* should not be utterly extinguish'd, and perish in oblivion; but should at least remain in Libraries; though the common and promiscuous use thereof might be retain'd. For in Cases of weighty consequence, it will not be amiss to consult and look into the mutations and continuations of *Laws past*: and indeed it is usual to sprinkle modern matters with Antiquity. And this *new corps of Law*, must be confirmed only by such, who in every State have the power of making Laws; lest perchance under colour of *Digesting Ancient Laws*, *new Laws*, under-hand be conveyed in.

APHORISM LXIV.

It could be wisht that this *Instauration of Laws*, might fall out, and be undertaken in *such times*, as, for learning and experience excel *those more Ancient times*, whose Acts and Deeds they recognize: which fell out otherwise in the works of *Justinian*. For it is a great unhappines, when the works of the Ancient, are maimed, and recompiled, by the judgement and choice of a less wise and learned Age: but oft times that is necessary which is not the best.

Thus much be spoken of the *Obscurity of Laws*, arising from the *excessive and confus'd accumulation thereof*. Now let us speak of the *dark and doubtful Description of them*.

Of the Perplext and Obscure Descriptions
of LAWS.

APHORISM LXV.

Obscure Description of *Laws* arises either from the *Loquacity or Verbosity* of them; or again from *extream Brevity*; or from the *Preamble of a Law* repugnant with the *Body of a Law*.

APHORISM LXVI.

It follows that we now speak of the *Obscurity of Law*, arising from a corrupt and crooked description thereof. The *Loquacity and Prolixity*, which hath been used in setting down *Laws*, we dislike: neither doth such a writer any way compass what he desires, and labours for; but rather the quite contrary. For while a man endeavours to pursue and express every *Particular case in apt and proper terms*, hoping to gain more Certitude thereby; contrariwise it falls out, that through *many words, multitude of Questions* are ingendred; so as a more sound and solid interpretation of *Law*, according to the genuine sense and mind thereof, is much intercepted through the noise of words.

APHORISM LXVII.

And yet notwithstanding a *too Concise and affected Brevity* for Majesties sake, or as more Imperial, is not therefore to be approved, specially in these times; lest Law become perchance, a *Lesbian Rule*. Wherefore a *middle temper'd stile* is to be embraced; and a generality of words well stated to be sought out; which though it do not so thoroughly pursue cases comprehended, yet it excludes cases not comprehended clearly enough.

APHORISM LXVIII.

Yet in ordinary and Politick Laws and Edicts, wherein for most part no man adviseth with his Counsel, but trusteth to his own judgment, all should be more *amply explicated and pointed out, as it were, with the finger*, even to the meanest capacity.

APHORISM LXIX.

So neither should we allow of *Preambles* to Laws, which amongst the ancients were held impertinencies, and which introduce *Disputing* and not *commanding Laws*, if we could well away with ancient custom. But these *Prefaces* commonly (as the times are now) are necessarily prefixt, not so much for explication of Law, as for persuasion that such a Law may pass in the solemn meeting of a State; and again, to give satisfaction to the communalty. Yet so far as possible may be, *let Prologues be avoided, and the Law begin with a command.*

APHORISM LXX.

The Mind and Meaning of a Law, though sometimes it may be drawn not improperly from *Prefaces* and *Preambles* (as they term them;); yet the latitude and extention thereof, must not be fetcht from thence. For a *Preamble* by way of example, sometimes fetcheth in, lays hold upon some of the plausible and most specious passages; when yet the Law compriseth many more: or on the contrary, the Law *restrains* and *limits* many Cases, the reason of which *limitations* to insert in the *Preface* were *superfluous*. Wherefore the *dimension* and *latitude* of a Law must be taken from the *Body* of a Law: *for a Preamble often falls either short, or over.*

APHORISM LXXI.

And there is a very *vicious manner of Recording of Laws*, that is, when the case at which the Law aimeth, is *express'd at large in the preamble*, afterward from the force of the word (*The like*) or some such *term of relation*, the *Body of a Law* is revertt into the *Preamble*; so as the *Preamble* is inserted and incorporated into the Law it self; which is
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an obscure and not so safe a course; because the same diligence useth not to be taken in pondering and examining the words of a *Preamble*, as there useth to be done in the *Body of a Law* it self. This part touching the *Incertainty of Laws* proceeding from an *ill Description of them* we shall handle more at large hereafter, when we come to treat of the *Interpretation of Laws*. Thus much of the *obscure Description of Laws*. Now let us speak of the ways of expounding Laws.

Of the divers ways of expounding Law and solving Doubts.

APHORISM LXXII.

THe ways of *expounding Law* and *solving Doubts*, are five. For this is done either by *Court-Rolls* and *Records*; or by *Authentick Writs*; or by *subsidiary Books*; or by *Preflections*; or by *Responses* and *Resolutions of Wise men*. All these, if they be well instituted and set down, will be singular helps at hand against the *obscurity of Laws*.

Of the reporting of Judgements.

APHORISM LXXIII.

Above all, let the *Judgements* delivered in higher, and *Principal Courts* of Judicature, and in matters of *grave importance*, specially *Dubious*, and which have some *Difficulty* and *Newness* in them, be taken with faith and diligence. For *Decrees* are the *anchors of Law*, as *Laws* are of the *Republick*.

APHORISM LXXIV.

The manner of collecting such *Judgements* and *Reporting* them, let be this. *Register the case precisely*; the *Judgements exactly*; annex the *Reasons of the Judgements* alleadged by the *Judges*; mingle not *Authorities of Cases brought for example* with *Cases Principal*. As for *Perorations of Pleaders*, unless there be something in them very remarkable, pass them over with silence.

APHORISM LXXV.

The *Persons* which should collect these *Judgements*, Let them be of the order and rank of the *learnedst Advocates*, and let them receive a liberal *Remuneration* from the *State*. Let not the *Judges* themselves meddle, at all, with these *Reports*; lest perchance, devoted to their own opinions, and supported by their own *Authority*, they transcend the limits of a *Reporter*.

APHORISM LXXVI.

Digest these *Judgments* according to the order and continuation of time, not according to *Method* and *Titles*: for *writings* of this nature are, as it were, the *Histories* and *Reports* of *Laws*; nor do the *Decrees* alone, but their *times* also give light to a wise Judge.

Of Authentick Writers.

APHORISM LXXVII.

Let the *Body* of *Law* be built only upon the *Laws* themselves, which constitute the *common Law*; next of *Decrees* or *Statutes*; in the third place of *Judgements* enrolled; besides these, either let there be no other *Authenticks* at all, or sparingly entertain'd.

APHORISM LXXVIII.

Nothing so much imports *Certainty* of *Laws* (of which we now discourse) as that *Authentick Writings* be confined within moderate bounds; and that the *excessive multitude* of *Authors* and *Doctors* of the *Laws*, whereby the mind and sentence of *Laws* are distracted; the Judge confounded; proceedings are made immortal; and the Advocate himself, despairing to read over and conquer so many Books, betakes himself to *Abridgements*; be discarded. It may be some good gloss, and some few of *Classick Writers*, or rather some small parcel of few *Writers*, may be received for *Authenticks*. Yet of the *rest*, some use may be made in *Libraries*, where *Judges* or *Advocates*, may as occasion is offered read their *Discourses*: but in causes to be pleaded, let them not be permitted to be brought and alleged in the Court, nor grow up into *Autority*.

Of Auxiliary Books.

APHORISM LXXIX.

Let not the knowledge and practice of *Law* be destituted, but rather well provided of *Auxiliary Books*. They are in general six sorts, *Institutes*; of the signification of *Words*; of the *Rules* of *Law*; *Ancient Records*; *Abridgements*; *Forms* of *Pleading*.

APHORISM LXXX.

Young *Students* and *Novices* are to be enter'd by *Institutes*; that they may the more profoundly and orderly draw and take in the knowledge and *Difficulties* of the *Laws*. Compose these *Institutes* after a clear and perspicuous manner. In these *elementary Books* run over the whole *private Law*; not passing by some *Titles*, and dwelling too long upon others; but briefly touching something in all; that
coming

coming to read through the *whole body of Laws*, nothing may be presented altogether strange; but what hath been tasted, and pre-conceiv'd by some slight notion. Touch not the *Publick Law in Institutes*, but let that be deduced from the *Fountains of themselves*.

APHORISM LXXXI.

Compile a Commentary upon the *Terms of Law*: Be not too curious and tedious in the explication thereof; and of rendring their sense; for the scope here, is not exactly to seek out the *Definition of Words*, but such *explications* only; as may clear the passage to the reading of the *Books of Law*. Digest not this Treatise by the *letters of the Alphabet*: leave that to some Index; but let such words as import the same thing be sorted together; that in the comprehension of the sense, one may administer help upon the other.

APHORISM LXXXII.

A sound and well-labour'd Treatise of the *divers Rules of Law*, conduceth (if any thing doth) to the *certainty of Laws*. A work worthy the Pen of the greatest Wits, and wisest Jurists. Nor do we approve what is extant in this kind. And not only noted and common *Rules*, are to be collected, but also others more subtil and abstruse, which may be abstracted out of the *Harmony of Laws*, and *Judged Cases*; such as are sometimes found in the *best Rubrics*; and these are the general *Dictates of Reason*, and the *Ballast*, as it were of *Law*.

APHORISM LXXXIII.

But all *Decrees and Placits of Law*, must not be taken for *Rules*, as is wont to be, absurdly enough: for if this should be admitted, then so *many Laws*, so *many Rules*; for a *Law* is nothing else, than a *commanding Rule*. But accept those for *Rules* which cleave to the very *Form of Justice*, from whence for most part the same *Rules* are commonly found through the *Civil Laws* of Different *States*; unless perhaps they vary for the reference to the *Forms of publick Governments*.

APHORISM LXXXIV.

After the *Rule* is divided in a brief and substantial comprehension of words; let there be, for *explication*, annex *examples*, and most clear and luculent *Decisions of Cases*; *Distinctions* and *exceptions* for *limitations*; *Points concurrent in sense*, for *Amplification* of the same *Rule*.

APHORISM LXXXV.

It is well given in Precept, that a *Law* should not be drawn from *Rules*; but the *Rule* from the *Law in force*. Neither is a *Proof* to be taken from the words of a *Rule*, as if it were a *Text of Law*: for a *Rule* (as the sea-man's needle doth the *Poles*) indicates only, not *Determines Laws*.

APHORISM LXXXVI.

Besides the *Body of Law*, it will avail also, to survey the *Antiquities or ancient Records of Laws*, whose Authority, though it be vanished, yet their Reverence remains still. And let the *Writings and Judgements concerning Laws*, be received for the *Antiquities of Laws*, which in time preceded the *Body of Laws*; whether they were published or not: for these must not be lost. Therefore out of these *Records* select what ever is most useful (for there will be found much vain and frivolous matter in them) and digest them into one volume; lest *old fables*, (as *Trebonianus* calls them) be mixt with the *Laws themselves*.

APHORISM LXXXVII.

And it much imports the practick part of *Laws*, that the whole Law be *Digested into Places and Titles*; whereto a man may have (as occasion shall be given) a sudden recourse, as to a furnished Promptuary for present practice. These *Books of Abridgements*, both reduce into *Order* what was dispersed, and *abbreviate* what was diffused and *Prolix* in Law. But caution must be taken that these *Breviaries*, make not men prompt for the *practick part*, and slothful for the *knowledge it self*: for their proper use and office is this, that by them the *Law* may be tilled over again, and not thoroughly learned. And these *Summaries* must by all means be collected with great diligence, faith and judgement, lest they *commit Felony against the Law*.

APHORISM LXXXVIII.

Make a Collection of the *divers Forms of Pleading* in every kind: for this conduceth much to the practick Part: and certainly these *Forms* do discover the Oracles and secret Mysteries of *Laws*: for there are many things which lie hidden in *Laws*; But in *Forms of Pleadings*, they are better and more largely displayed; —like the fist to the Palm.

Of Responses and Resolutions of Doubts.

APHORISM LXXXIX.

Some course must be taken for the *cutting off*, and satisfying *particular Doubts* which emerge from time to time: for it is a hard case that they which desire to secure themselves from error, should find no guide to the way: but that present businesses should be hazarded; and there should be no means to know the *Law* before the matter be dispatched.

APHORISM XC.

That the Resolutions of the *Wise*, given to *Clients* touching *point of Law*, whether by *Advocates* or *Professors*, should be of such Authority, that it may not be lawful for the Judge to depart from their opinion, we cannot approve. Let *Law* be derived from *sworn Judges*.

APHO-

APHORISM XCI.

To Feel and sound Judgements by feigned Causes and Persons, that by this means, men might find out what the Course and proceeding of Law will be, we approve not: for it dishonoureth the Majesty of Laws, and is to be accounted a kind of *prevarication* or double dealing; and it is a foul sight to see places of Judicature to borrow any thing from the stage.

APHORISM XCII.

Wherefore let, as well the *Decrees*, as the *answers and Counsels* proceed from the Judges alone: those of suits depending; these of difficult points of Law, in the general. Require not these *Decisions*, whether in causes private or publick, from the Judges themselves, (for this were to make the Judge an Advocate) but of the *Prince*, or of the *State*. From these let the order be directed unto the *Judges*: and let the *Judges* thus authorized, hear the *reasons on both sides*; both of the *Advocates* or of the *Committees*, deputed by the parties to whom the matter appertaineth; or of them assigned by the Judges themselves; if necessity so require: and weighing the Cause, let them deliver the Law upon the case and declare it. Let these *verdicts* and *counsels*, be recorded and notified amongst *Cases adjudged*, and be of equal authority.

Of Prelections.

APHORISM XCIII.

Let the *Lectures of Law*, and the exercises of those that address themselves to the studies of Law, be so instituted and ordered, that all may tend rather to the laying asleep, than the awaking of Questions and Controversies in Law. For (as the matter is now carried) a School is set up, and open amongst all, to the multiplying of *Altercations and Questions in Law*; as if their aim was only to make ostentation of wit. And this is an old disease, for even amongst the Ancients, it was, as it were, a glory, by Sects and Factions, to cherish rather than extinguish many questions concerning Law. Provide against this inconvenience.

Of the Instability of Judgements.

APHORISM XCIV.

Judgements become uncertain, either through *immature and too precipitate proceeding to sentence*; or through *Emulation of Courts*; or through ill and *unskilful registering of Judgements*; or because there is a too *easy and expedit way open of Reversing and Rescinding them*. Wherefore it must be provided, that *Judgements* issue forth not without a *staid deliberation had afore-hand*; and that Courts bear a *Reverent*

rent respect to one another; and that Decrees be drawn up faithfully and wisely; and that the way to repeal Judgements be narrow, rocky and strewed, as it were, with sharp stones.

APHORISM XCV.

If a Judgement have been awarded upon a Case in any Principal Court; and the like case intervene in another Court; proceed not to sentence before the matter be advised upon in some solemn Assembly of Judges: for if Judgements awarded must needs be repeal'd, yet let them be interred with Honour.

APHORISM XCVI.

For Courts to be at debate and variance about Jurisdictions is a humane frailty; and the more because this intemperance, through a misprission and vain conceit (*that it is the part of a stout resolute Judge to enlarge the priviledges of the Court*) is openly countenanced and spur'd on, whereas it hath need of the Bridle. But that out of this heat of stomach, Courts should so easily reverse on both sides Judgements awarded, which nothing pertain to Jurisdiction, is an insufferable evil, which by all means should be repres'd and punish't; by Kings or Counsels of State, or the form of Government. For it is a President of the worst example, *That Courts, that should distribute Peace, should themselves practice Duels.*

APHORISM XCVII.

Let there not be a too easie and free passage made to the Repealing of Judgements by Appellations, and writs of Error, or Re-examination, and the like. It is maintained by some, that a Suit may be brought into a Higher Court, as entire and untried, the Judgement past upon it, set aside and absolutely suspended: others are of opinion that the Judgement it self may stand in force, but the execution thereof may be staid: neither of these is to be allowed, unless the Courts wherein the Judgement was awarded, were of a base and inferior order: but rather that both the Judgement stand, and that the execution thereof go on; so a Caveat be put in by the Defendant for Damages and charges if the Judgement should be reverse't.

But this Title touching the Certainty of Laws shall suffice for a pre-
 fident to the rest of a * Digest, which we with care and diligence
 endeavour to contrive. And now have we concluded Civil Know-
 ledge (so far as we thought fit to entreat thereof) and together with it
 Humane Philosophy, as also with Humane Philosophy; Philosophy in Ge-
 neral. Wherefore being now at length at some pause, and looking
 back into that we have past through; this our writing seems to us not
 much unlike those sounds and Preludes, which Musicians make while
 they are tuning their Instruments; which is harsh and unpleasing to
 hear, but yet is a cause why the Musick is sweeter afterwards.

So

* Digestum ju-
 ris Anglicani;
 Sacrum Justitie
 Templum; Opus
 sane Regium;
 sed nondum
 conditum; quod
 Tuo seculo Ex-
 cellentissime
 Principum, In-
 staurandum:
 Tui Nominis
 Aternitati,
 consecrandum
 reservatur.

So have we been content to employ our pains in tuning the *Instrument of the Muses*, and to set it unto a true Harmony, that afterwards they may play who have better hands. Surely, when I set before me the condition of these times, in which *Learning* seems to have made her *third Circuit* to Men; and withal diligently behold, with what various supplies and supports being furnisht, she hath made her visitation; as are, the *height and vivacity of many Wits* in this our Age; the *excellent monuments of Ancient writers*, which as so many great lights shine before us; the *Art of Printing*, which communicates Books with a liberal hand to men of all fortunes; the *travel'd bosom of the Ocean* and of the world, opened on all parts, whereby multitudes of experiments unknown to the Ancients have been disclosed; and *Natural History*, by the access of an infinite Mass advanced: the *leisure* wherewith the Kingdoms and States of Europe every where abound, not imploying men so generally in *Civil Businessses*, as the States of *Greece* did in respect of their *Popularity*; or as the state of the *Romans* did in respect of their *Monarchy*: the *Peace* which at this present, *Brittany*, *Spain*, *Italy*, as also at this instant *France* and many other Countries enjoy: The *Consumption and Exanition* of all that can be imagined or said in *controversies of Religion*, which now so long have taken up so many Wits, and diverted them from the studies of *other Sciences*: the *Elevation and Perfection of Your Majesties Learning*; about whom (as the Birds about the *Phœnix*) whose vollies of wits flock and assemble: Lastly the *inseparable property which attends time it self*, which is, *ever more and more to disclose truth*: when we think, I say, on these advantages; we cannot but be raised to this Perswasion, that this *third period of Learning*, will far surpass those two former of the *Grecian and Roman Learning*. Only if men will but well and wisely know their own strength and their own weakness both; and take, one from the other, *light of Inventions*; and not *Fire-brands of contradiction*; and esteem of the *Inquisition of Truth*, as a noble enterprise, and not as a delight or ornament; and imploy wealth and magnificence to things of worth and excellency, and not to things vulgar and of popular estimation.

As for my Labours, if any man shall please himself or others in the reprehension of them, certainly they shall cause me put up that ancient request, but of great patience, *verbera, sed Audi*; let men reprehend as they please, so they observe and weigh what is spoken. Verily the Appeal is lawful (though, it may be, for this matter, not so needful) if it be made *from the first cogitations of men unto the second*; and *from the neerer times, to the times farther off*.

Now let us come unto the *Learning*, which those two ancient *Periods of time* were not so blest as to know, I mean *Sacred and Divinely inspired Theology*, the noblest *Saboth and Port of all mens Labours and Peregrinations*.

THE
 Ninth Book
 OF
 FRANCIS L. VERULAM
 VICOUNT S^t ALBAN:
 OF THE
 Dignity and Advancement
 OF
LEARNING.

To the KING.

CHAP. I.

The Partitions of Inspired Divinity are omitted, only access is made to three Deficients. I. The Doctrine of the right use of Humane Reason in matters Divine. II. The Doctrine of the Degrees of Unity in the City of God. III. And the Emanations of SS. Scriptures.

AND now (*most excellent King*) we have with a small Bark, such as we were able to set out, sail'd about the universal circumference, as well of *the old as the new, World of Sciences*; with how prosperous winds and course, we leave to Posterity to Judge. What remains but that having accomplisht our Designs, we should pay our vows? But there rests yet behind *Sacred-inspired-Divinity*; where-of if we should proceed to intreat, we should depart out of the *Pinnacle of Humane Reason*, and go into the *ship of the Church*, which must alone be governed by a *Divine sea-needle*, to direct her course aright: for the *Stars of Philosophy* which hitherto shined forth unto us, and were our chief guide, here fail us: it were then meet, we

kept silence in this sacred subject. Wherefore we shall omit the *just partitions of this knowledge*; yet notwithstanding somewhat we will cast into this treasury, by way of good wishes according to the proportion of our slender hability. This we do the rather because we find no coast or space of ground in the whole *Body of Divinity* lying vacant and untill'd; so diligent have men been, either in sowing of *Good seed, or sowing of Tares.*

§ Wherefore we will propound three Appendices of Theology, treating, not of the matter informed of by Divinity, or to be informed of, but only of the *manner of information*: neither will we annex examples, or set down precepts concerning these Tractates, as our manner was to do in the rest; that we refer to *Divines*; for these are (as hath been said) *like meer vows only.*

†
I. *The prerogative of God* comprehends the whole man; and is extended as well to the *Reason*, as to the *will of Man*; that is, that man renounce himself wholly, and draw near unto God: wherefore as we are to *obey his law*, though we find a reluctance in our *will*, so we are to *believe his word*, though we find a reluctance in our *Reason*: for if we believe only that which is agreeable unto our *Reason*, we give assent to the *Matter*, not to the *Author*; which is no more than we would do towards a suspected and discredited witness: but that *Faith which was accounted unto Abraham for Righteousness*, was of such a point, as whereat *Sarah* laughed, who therein was an Image of *Natural Reason*. By how much therefore any *Divine Mysterie* is more discondant, and incredible; by so much the more Honour is given to God in *Believing*, and the victory of our *Faith* is made more noble: Nay, even sinners by how much the more they are surcharg'd in conscience, and yet repose a trust in the mercies of God for their salvation, by this do more honour God, for *all desperation is a reproach of the Deity*. Nay farther, (if we truly consider the point) it is an Act more great and high to *believe*, than to *know*, as we now *know*: for in *knowledge* man's mind suffers from *sense*, which results from things *materiate*; but in *Belief* the spirit suffers from spirit, which is the worthier Agent: the case is otherwise in the *state of Glory*, for then *Faith shall cease, and we shall know, as we are known*. Wherefore we may conclude, that *Sacred Theology* is grounded on, and must be deduced from the *Oracles of God*; and not from the *light of Nature*, or the *Dictates of Reason*: for it is written, *The Heavens declare the Glory of God*, but we never find it written, *The Heavens declare the will of God*: of the *will of God*, it is said, *Ad legem & Testimonia; si non fecerint secundum illud, &c.* This holds not only in those great *Mysteries concerning the Deity*, the *Creation*, the *Redemption*, but appertains also to a more perfect interpretation of the *Law Moral*, *Love your Enemies*; *do good to them that hate you, &c. that you may be the children of your heavenly Father, who commands the rain to fall upon the just and unjust*, which words certainly deserve that applause, *Nec vox hominem sonat*: For it is a voice beyond the light of Nature. So likewise we see the *Heathen Poets* especially, when they fall upon a passion, do still expostulate with *Laws and Moralities* (which yet are far more free and indulgent than *divine*

SOPHRON
sive de legiti-
mo usu RA-
TIONIS hu-
mana in DI-
VINIS.

Gen. 18.

I Cor. xiii.

Psal. xix.

Mat. v.

vine Laws) as if in a kind of malignity, they were repugnant to the liberty of nature,

—*Et quod natura remittit
Invida jura negant*—

Plutar. in A.
lex. M.

So said *Dendamis* the Indian, unto Alexanders Messengers, *That he had heard somewhat of the name of Pythagoras, and some other of the wise men of Grecia, and that he held them for excellent men; but they had one fault, which was, that they had in too great Reverence and Veneration, an imaginary thing they called Law and Manners.* So it must be confest, that a great part of the *Law Moral* is of that perfection, whereunto the light of nature cannot aspire: yet notwithstanding, that men are said to have, even from the *Light and Law of Nature*, some notions and conceits of *virtue, vice, justice, injury, good and evil*, is most true and certain. Yet we must understand that this *light of Nature* is used in two several senses; *first*, as it springs from sense, *Induction, Reason, Arguments*, according to the *Laws of Heaven and Earth*; *secondly*, as it is imprinted and shines upon the spirit of Man by an inward instinct according to the *Law of Conscience*, which is a spark, and, as it were, the Remains of a *Pristine and Primitive Purity*: in which latter sense principally, the soul is participant of some light to behold and discern the perfection of the *Moral Law*; which light is not altogether so clear, but such as in some measure rather reprehends *vices*, than fully informes us concerning *Duties*: So then the *Religion* as well *Moral* as *Mystical* depends upon *Divine Revelation*.

§ The use, notwithstanding, of *Humane Reason* in matters *spiritual*, is without question, manifold, very spacious, and general; and it is not for nothing that the Apostle calls Religion, *our reasonable service of God*, Let it be remembred that the shadows and Figures of the old Law, were full of *Reason* and *signification*, much differing from the ceremonies of *Idolatry* and *magick*, which were surd and mute; oftentimes instructing nothing, no not so much as insinuating any thing. *The Christian Faith* especially, as in all things, so in this is eminent, and deserves highly to be magnified, that it holds a golden *Mediocrity* touching the use of *Reason* and *Disputation*, which is the off-spring of *Reason*; between the *Law of the Heathen* and the *Law of Mahomet*, which have embraced the two extremes; for the Religion of the *Heathen*, had no constant belief or confession; on the contrary in the Religion of *Mahomet*, all *Disputation* was interdicted: so as one hath the very face of *wandering* and *multifarious error*; the other of *cunning* and *cautious imposture*; whereas the *Holy Christian Faith* doth both admit and reject *Disputation*, but according to due bounds.

§ The use of *humane Reason* in matter pertaining to Religion is of two sorts; the one in the *explication* and *conception* of the *Mystery*; the other in *Illations* and *Inferences* derived from thence. As touching the *Explication* of *Mysteries*, we see that God vouchsafeth to descend to the weakness of our capacity, so expressing and unfolding his *Mysteries* as they may be best comprehended by us; and *inoculating*

V. Doct. II.
Hookerum de
LL. Eccl. Poli-
tical. § VIII.
IX. LI. § VIII.
IX.
Rom. XII.

ting, as it were, his Revelations, upon the Conceptions and Notions of our Reason; and so applying his inspirations to open our understanding, as the form of the key is fitted to the ward of the lock. In which respect notwithstanding, we ought not to be wanting to our selves; for seeing God himself makes use of the faculty and function of Reason in his Illuminations; we ought also every way to imploy and improve the same, whereby we may become more capable to receive and draw in such holy Mysteries: with this caution, that the mind for its Module be dilated to the amplitude of the Mysteries; and not the Mysteries be streightned and girt into the narrow compass of the Mind.

§ As for Illations, we ought to know that there is allowed us a use of Reason and Argument, in regard of Mysteries, Secondary and Respective; not Primitive and Absolute: for after the Articles and Principles of Religion are placed in their seats, so as they stand altogether exempt from the examination of Reason, it is then indeed permitted unto us to make derivations and inferences from them, according to the Analogy of them. In things Natural this holds not; for both the Principles are liable to examination, by Induction I mean, though not by Syllogism; and the same Principles have no repugnancy with Reason, but that the first and middle Propositions may be derived from the same Fountain. But it is otherwise in the Doctrine of Religion, where the first propositions are their own supporters and subsistent by themselves; and again, they are not regulate by that Reason, which inferreth consequent propositions. Nor holdeth this in Religion alone, but also in other Sciences, both of greater and smaller nature; namely where the Primarie Propositions are Placita not Posita; because in these also the use of Reason cannot be absolute. For instance we see in Games, as Chess, or the like, that the first Draughts and Laws of the Play are merely positive & ad placitum, which must absolutely be accepted, and not disputed; but that thereupon you may win the Game, and with the best advantage manage your Play, is a thing artificial and rational. So it is likewise in Humane Laws, wherein there be many Maximes (as they stile them) that is, mere Placita Juris, grounded more upon Authority than Reason; neither come they into disceptation: but what is most just, not absolutely but relatively, (that is from the Analogie of these Maximes) that indeed is Rational, and affords a large field of Disputation. Such therefore is that secondary Reason, which hath place in sacred Theology, that is, which is grounded upon the Placits of God.

§ And as there is a double use of humane Reason in matters Divine; so in the same use there is a double excess; the one where there is made a more curious enquiry into the manner of the Mystery, than is be seeming; the other when equal Authority is attributed to Derivations, which is to Principles. For both he, may seem to be Nicodemus Disciple, who pertinaciously enquires, How can a man be born when he is old? and he in no wise can be accounted Pauls Disciple, which may not sometimes interlace his instructions with Ego non Dominus, or that, According to my Judgment; for to many Illations that stile is well applied: wherefore to my understanding it would be a wholesome and very pro-

Joan. III.

I Cor VIII.

pro-

profitable course, if there were a sober and diligent Tractate compiled, which as a kind of *Divine Dialectick* might give directions, concerning the true limits and use of Reason in matters Divine; which would be a kind of *Opiate Medicire*, not only to quiet and lay asleep the vanity of Aery speculations, wherewith the Schools sometime labour; but likewise not a little calm, and mitigate the furies and rage of Controversies, which raise sidings and factions in the Church. A Treatise of this nature we set down as *Deficient*, and term it *Sophron* or the *the right use of Humane Reason in matters Divine*.

II. It imports exceedingly the *Peace of the Church*, that the *League of Christians*, prescribed by our Saviour in those two clauses which seem to cross one the other, were well and clearly expounded; whereof the one defines thus, *He that is not with us is against us*: the other thus: *He that is not against us is with us*. From those two several assertions it plainly appears, that there are some *Articles wherein whosoever dissenteth, is to be held as not comprehended in the league*: and there are other *Articles, wherein a man may dissent, and yet the league be kept entire*. For the bounds of Christian community are set down; *One Faith, one Baptism*; and not, *one Rite, one Opinion*. We see likewise the *Coat of our Saviour was entire without seam*; but the garment of the Church *was of divers Colours*. The *Chaff* must be sever'd from the corn in the ear; but the *Tares* may not presently be pull'd up from the Corn in the Field. When *Moses* saw an Egyptian fighting with an Israelite, he did not say, why strive you? but drew his sword and slew the Egyptian; but when he saw two Israelites fight, though it could not possible be that both parties had a just cause; yet he thus bespeaks them both, *You are brethren, why strive you?* Wherefore if these things be well observed, it will be found a matter of great moment and use to define what, and of what latitude those points are, which discorporate men from the body of the Church, and cast them out and quite cashier them from the communion and fellowship of the faithful. And if any think that this hath been done now long ago, let him seriously consider with what sincerity, and moderation the same hath been perform'd. In the mean space it is very likely, that he that makes mention of *Peace*, shall bear away that answer *Jehu* gave to the Messenger, *Is it Peace Jehu? What hast thou to do with Peace? turn and follow me*. *Peace* is not the matter that many seek after, but parties and siding: Notwithstanding we thought good to set down amongst *Deficients*, as a wholesome and profitable work, a Treatise touching the *Degrees of Unity in the City of God*.

III. Seeing the Parts of Sacred Scripture touching the *Information of Theology*, are such and so great; let us specially consider the Interpretation thereof; nor do we here speak of the *Authority of interpreting them*, which is establisht by the consent of the Church, but of the *manner of Interpreting*. This is of two sorts, *Methodical*; and *Solute*, or at large: for this divine water, which infinitely excels that of *Jacobs well*, is drawn forth and deliver'd much after the same manner as *Natural waters* use to be out of *Wells*; for these at the first draught are either receiv'd into *Cisterns*, and so may be conveyed,

and

*

IRFNEUS,
sive de Gra-
dibus unitatis
in Civitate
Dei.

Luc. c. ix. 17. 23
Luc. xi. 3. 50

Ephes. iv.
Joan. x. x.
1. Gal. xiv.

Exod. iii.

1 Reg. ix.

*

UTRES
COELE-
STES, sive
Emanationes
Scripturarum.

and deriv'd by many Pipes for publick and private use ; or is pour'd forth immediately in Buckets and Vessels, to be us'd out of hand, as occasion requires.

§ Now this former *Methodical manner* hath at length brought forth unto us *Scholaſtical Theology*, whereby *Divinity* hath been collected into an *Art*, as into a *Cistern* ; and the streams of *Axioms* and *Positions*, distributed from thence into all parts.

§ But in *ſolute Manner of Interpreting*, two *extreams* intervene ; the one *preſuppoſeth ſuch a perfection in Scriptures*, as that all *Philosophy* ought to be fetcht and deriv'd from thoſe ſacred *Fountains* ; as if all other *Philosophy* were an *unhallowed and Heatheniſh thing*. This diſtemperature hath prevail'd eſpecially in the School of *Paracelſus*, and ſome others ; the ſource and ſpring whereof flow'd from the *Rabbins* and *Cabalists*. But theſe men have not attain'd their purpoſe ; nor do they give honour (as they pretend) to *Scriptures*, but rather embaſe and diſtain them. For to ſeek a *materiate Heaven* and *Earth* in the *Word of God*, whereof it is ſaid *Heaven and Earth ſhall paſſe, but my word ſhall not paſſe*, is indeed to purſue *Temporary things* amongſt eternal : for as to ſeek *Divinity in Philoſophy*, is as if you would ſeek the *living* amongſt the *Dead* ; ſo on the other ſide, to ſeek *Philoſophy in Divinity*, is all one as to ſeek the *dead* amongſt the *living*.

Mat. xxiv.

§ The other *manner of Interpreting*, which we ſet down as an exceſs, ſeems at firſt ſight ſober and chaſte ; yet notwithstanding it both diſhonoureth *Scriptures*, and is a great prejudice and detriment to the *Church* ; and it is, to ſpeak in a word, when *Divinely-inſpir'd Scriptures* are expounded after the ſame manner that *humane writings* are. For it muſt be remembred, that there are two points known to *God* the *Author of Scripture*, which man's nature cannot comprehend ; that is, *The ſecrets of the Heart* ; and *the ſucceſſion of Times*. Wherefore ſeeing the *Precepts* and *Dictates* of *Scriptures* were written and directed to the *Heart and Thoughts* of men, and comprehend the viciffitudes of all *Ages*, with an eternal and certain fore-ſight of all *Heresies*, *Contradictions* ; differing and mutable eſtates of the *Church*, as well in general, as of the *Elect* in ſpecial ; they are to be interpreted according to the *Latitude* and the proper ſence of the place, and reſpectively toward that preſent occasion whereupon the words were utter'd ; or in precise congruity from the *Context* of the precedent and ſubſequent words ; or in contemplation of the principal ſcope of the place ; but ſo as we conceive them to comprehend, not only totally or collectively, but diſtributively, even in clauſes, and in every word, infinite ſprings and ſtreams of *Doctrines* to water every part of the *Church*, and the ſpirits of the *Faithful*. For it hath been excellently obſerved, that the *Answers* of *our Saviour*, to many of the queſtions which were propounded to him, ſeem not to the purpoſe, but, as it were, impertinent to the ſtate of the queſtion demanded. The *Reasons* hereof are two : the one, that being he knew the *thoughts* of thoſe that propounded the *Queſtions*, not from their words, as we men uſe to do, but immediately, and of himſelf, he made answer to their *thoughts*,

not

not to their *words*. The other Reason is, that he spake not only to them that were then present, but to us also who now live, and to men of every Age and Place to whom the Gospel should be preacht: which sense in many places of Scripture must take place.

§ These thus briefly toucht and fore-tasted, come we now to that Treatise which we report as *Deficient*. There are found indeed amongst *Theological writings* too many *Books of Controversies*, an infinite Mass of that *Divinity* which we call *Positive*, as *Common-places*; *Particular Treatise*; *Cases of Conscience*; *Sermons*; *Homilies*; and many *Prolix Commentaries* upon the *Books of Scripture*: but the Form of writing *Deficient* is this, namely *succinct and sound Collection*, and that with judgement, of *Annotations and Observations* upon particular *Texts of Scripture*; not dilating into *common-places*; or *changing after Controversies*; or *reducing them into method of Art*: but which be altogether *scattered and Natural*; a thing indeed now and then express't in more learned Sermons, which for most part vanish; but which as yet, is not collected into Books that should be transmitted to Posterity. Certainly as Wines which at first pressing run gently, yield a more pleasant taste, than those where the Wine-press is hard wrought; because those somewhat relish of the stone and skin of the Grape; so those observations are most wholesome and sweet, which flow from Scriptures gently express't, and naturally expounded, and are wrested or drawn aside to common places or Controversies; such a Treatise we will name, *The Emanations of Scripture*.

“ § Thus have we made, as it were, a *small Globe of the Intellectual world*, as faithfully as we could, together with a designation and description of those parts which I find not constantly occupy, or not well converted by the Industry and Labours of men. In which work if I have any where receded from the opinion of the Ancients, I desire that Posterity would so judge of my intentions, as that this was done with a mind of further *Progression*, and *Proficiency in melius*; and not out of a humour of *Innovation*, or *Transmigration in aliud*: for I could not be true and constant to my self, or the Argument which I have in hand, if I had not resolvedly determin'd, *To add to the Inventions of others*, so far as I was able. And I am as willing, and as sincerely wish, that later ages may go beyond me hereafter, as I have endeavoured to go beyond others now. And how faithfully I have dealt in this business may appear even by this, that I have propounded my opinions every where naked and unarm'd, not seeking to prejudicate the liberty of others by the pugnacity of confutations. For in any thing which I have well set down, I am in good hope that it will come so to pass, that if in the first reading a scruple or objection be mov'd, in the second reading an answer will be ready made; and in those things wherein I have chanc'd to err, I am sure I have not prejudiced the right by litigious arguments, which commonly are of this nature, *that they procure Authority to error, and derogate from Good inventions*; for from *Dubitation Error acquires Honour*,

*nour, Truth suffer repulse. And now I call to mind an Answer Themis-
tacles made, who, when an Ambassador in a set speech had boasted
great matters of a small Village, takes him up thus, Friend, your
words would require a City. Surely I suppose it may be justly ob-
jected to me, that my words require an Age, a whole Age perchance
to prove them, and many Ages to perfect them. Notwithstanding
seeing the greatest matters are owing unto their Principles, it is
enough to me that I have Sown unto Posterity, and the immortal
God, whose divine Majesty I humbly implore through his Son and
our Saviour, that he would vouchsafe graciously to accept these
and such like sacrifices of Humane understanding seasoned with Reli-
gion as with salt, and incensed to his Glory.*

A

A
NEW WORLD
OF
SCIENCES:
OR THE
DEFICIENTS

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* **E**rrores Naturæ: Or the History of Preter-Generations, Cap. 2. Sect. 3.

* *Vincula Naturæ*, Experimental or Mechanical History, Cap. 2. Sect. 4.

* *Historia Inductiva*, Natural History for the building up of Philosophy, Cap. 3. Sect. 1.

* *Oculus Polyphemi*, Or the History of Learning from age to age, Cap. 4. Sect. 1.

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* *Magia Naturalis*: Or the setting of *Formes* on work, Cap. 5. Sect. 1. § 1.

* *Inventarium Opum Humanarum*, An Inventory of the Estate of Man, Cap. 5. Sect. 2.

* *Catalogus Polychrestorum*, a Catalogue of Things of multifarious Use and Application, Cap. 5. Sect. 2. § 1.

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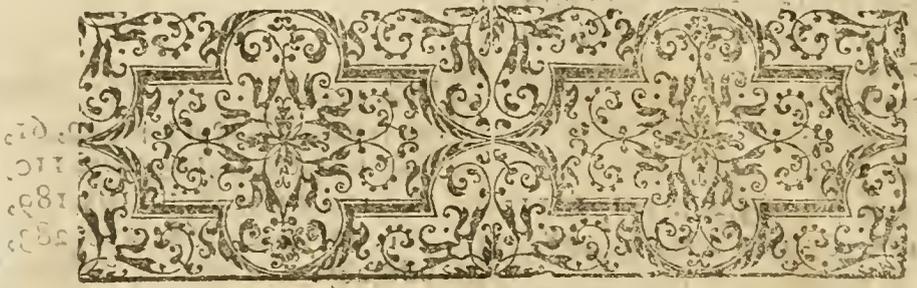
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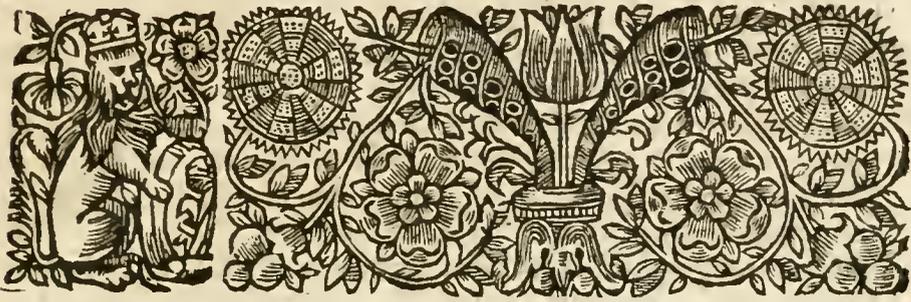
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Dectori



LECTORI ACADEMICO S.

Certe Philosophia Naturalis omnium Scientiarum
nobilissima est, Certissima ac amplissima; utpote
suo ambitu Complectens volumen illud magnum
& admirandum Operum Dei ac Creaturarum;
eorumq; varietatem, Constantiam ac ornatum. Catalogus
vero iste, qui Capita & summa Rerum Continet, omnium
qui unquam prodire, perfectissimus est, maxime ordinatus
ac definitus: ad imaginem Mundi compositus ac Rerum;
non intellectus & speculationum, quarum non est ordo, nu-
merus, neq; finis. Catalogus reverà ad mensuram universi
& experimentorum ita accommodatus, ut naturam in natu-
ra quærat, eamq; in omnes ejus formas mutatam constringat,
omnesq; ejus status comprehendat; libertatem, errores,
vincula; in speciebus suis, in monstris, in mechanicis. De-
niq; Index est incomparabilis, ac summo judicio elaboratus. Ad
sylvam & supellectilem Historiarum Naturalium Colligen-
dam, nullus uberior; ad, sic collectam, in locos Com. &
propriam classes digerendam, nullus Concinnior; ad, sic di-
gestam, memoriter retinendam, nullus efficacior unquam ex-
stitit; vel humano ingenio ac industria excogitari potest. In-
terpres sic cogitavit? quod Juventuti Academicæ ac veri-
tatis amantibus notum fieri, ipsorum interesse putavit. E-
runt fortassis Pedarii Senatores, qui, modernis methodis ad-
sueti, aliam sententiam ferent; atque ferant aliam; Sed ju-
stificata est sapientia à filiis suis.



CATALOGUS

Historiarum Particularum.

Secundum Capita.

- 1 **H**istoria Cœlestium ; sive Astronomica.
- 2 Historia configurationis Cœli & partium ejus, versùs Terram & partes ejus ; sive Cosmographica.
- 3 Historia Cometarum.
- 4 Historia Meteororum ignitorum.
- 5 Historia Fulgurum, Fluminum, Tonitruum, & Coruscationum.
- 6 Historia Ventorum, & Flatuum repentinorum, & Undulationum Aeris.
- 7 Historia Iridum.
- 8 Historia Nubium, prout supernè conspiciuntur.
- 9 Historia Expansionis Cœruleæ, Crepusculi, plurium Solium, plurium Lunarum, Halonum, Colorum variorum Solis & Lunæ ; atq; omnis varietatis Cœlestium ad aspectum, quæ sit ratione Medii.
- 10 Historia Pluviarum Ordinarium, Procellosarum, & Prodigiousarum ; etiam Cataractarum (quas vocant) Cœli, & similium.
- 11 Historia Grandinis, Nivis, Gelu, Pruina, Nebulæ, Roris, & similium.
- 12 Historia omnium aliorum Cadentium sive Descendentium ex alto, & supernè generatorum.
- 13 Historia Sonituum in alto (si modò sint aliqui) præter Tonitrua.
- 14 Historia Aeris, in Toto, sive in Configuratione Mundi.
- 15 Historia Tempestatum, sive Temperamentorum Anni, tam secundùm variationes Regionum, quàm secundùm accidentia Temporum, & periodos Annorum ; Diluviorum, Fervorum, Siccitatum, & similium.
- 16 Historia Terræ & Maris ; Figuræ & Ambitùs ipsorum, & Configurationis ipsorum inter se, atq; Exporectionis ipsorum in latum

Catalogus Historiarum Particularium.

- aut angustum ; Insularum Terræ in Mari, Sinuum Maris, & Lacuum salforum in Terrâ, Isthmorum, Promonteriorum.
- 17 Historia Motuum (si qui sint) globi Terræ & Maris; & ex quibus Experimentis illi colligi possint.
- 18 Historia Motuum majorum & Perturbationum in Terrâ & Mari, nempe Terræ Motuum & Tremorum & Hiatuum, Insularum de novo enascentium, Insularum fluctuantium, Abruptionum Terrarum per ingressum Maris, Invasionum & Illuvionum, & contra Desertionum Maris; Eruptionum ignium è terrâ, Eruptionum subitaneorum Aquarum è Terrâ, & similibus.
- 19 Historia Geographica Naturalis, Montium, Vallium, Sylvarum, Planitierum, Arenarum, Paludum, Lacuum, Fluviorum, Torrentium, Fontium, & omnis diversitatis scaturiginis ipsorum, & similibus: missis Gentibus, Provinciis, Urbibus, & hujusmodi Civilibus.
- 20 Historia Fluxuum & Refluxuum Maris, Euriporum, Undulationum & Motuum Maris aliorum.
- 21 Historia cæterorum Accidentium Maris; Salsuginis ejus, Colorum diversorum, Profunditatis: & Rupium, Montium, Vallium submarinarum, & similibus.

Sequuntur Historia Massarum majorum.

- 22 **H**istoria Flammæ, & Ignitorum.
- 23 **H**istoria Aeris, in substantiâ, non in Configuratione.
- 24 **H**istoria Aquæ, in substantiâ, non in Configuratione.
- 25 **H**istoria Terræ & diversitatis ejus in Substantiâ, non in Configuratione.

Sequuntur Historia Specierum.

- 26 **H**istoria Metallorum perfectorum, Auri, Argenti, & Minerarum; Venarum, Marcasitarum eorundem: Operaria quoque in Mineris ipsorum.
- 27 Historia Argenti Vivi.
- 28 Historia Fossilium; veluti Vitrioli, & Sulphuris, &c.
- 29 Historia Gemmarum; veluti Adamantis, Rubini, &c.
- 30 Historia Lapidum; ut Marmoris, Lapidis Lydii, Silicis, &c.
- 31 Historia Magnetis.
- 32 Historia Corporum Miscellaneorum, quæ nec sunt Fossilia progressus, nec Vegetabilia; ut Salium, Succini, Ambræ-griseæ, &c.
- 33 Historia Chymica circa Metalla & Mineralia.
- 34 Historia Plantarum, Arborum, Fruticum, Herbarum: & Partium eorum, Radicum, Caulium, Ligni, Foliorum, Florum, Fructuum, Seminum, Lachrymarum, &c.
- 35 Historia Chymica circa Vegetabilia.
- 36 Historia Piscium, & Partium ac Generationis ipsorum.
- 37 Historia Volatilium, & Partium ac Generationis ipsorum.

Secundùm Capita.

- 38 Historia Quadrupedum , & Partium ac Generationis ipsorum.
- 39 Historia Serpentum, Vermium, Muscarum, & cæterorum Insectorum; & partium ac generationis ipsorum.
- 40 Historia Chymica circa ea quæ sumuntur ab Animalibus.

Sequuntur Historiæ Hominis.

- 41 **H**istoria Figuræ , & Membrorum externorum Hominis , Staturæ , Compagis , Vultûs , Lineamentorum ; eorumq; varietatis secundùm Gentes & Climata , aut alias minores Differentias.
- 42 Historia Physiognomica super ipsa.
- 43 Historia Anatomica, sive Membrorum internorum Hominis ; & varietatis ipsorum, quatenûs invenitur in ipsâ naturali Compagè & Structurâ, non tantùm quoad Morbos & Accidentia prænaturalia.
- 44 Historia partium similarium Hominis ; ut Carnis, Ossium , Membranarum, &c.
- 45 Historia Humorum in Homine; Sanguinis , Bilis , Spermatis, &c.
- 46 Historia Excrementorum ; Sputi , Urinarum , Sudorum , Sedimentorum , Capillorum , Pilorum, Reduviarum, Unguium, & similibium.
- 47 Historia Facultatum ; Attractionis, Digestionis, Retentionis, Expulsionis, Sanguificationis, Assimilationis alimentorum in membra, Versiois Sanguinis & Floris ejus in Spiritum, &c.
- 48 Historia Motuum Naturalium & Involuntariorum ; ut Motûs Cordis, Motûs Pulsuum, Sternutationis, Motûs Pulmonum, Motûs Erectionis Virgæ, &c.
- 49 Historia Motuum mixtorum ex Naturalibus & voluntariis ; veluti Respirationis, Tuffis, Urinationis, Sedis, &c.
- 50 Historia Motuum Voluntariorum ; ut Instrumentorum ad voces articulatas ; ut Motuum Oculorum, Linguæ, Faucium, Manuum, Digitorum ; Deglutionis, &c.
- 51 Historia Somni & Insomniorum.
- 52 Historia diversorum Habituum Corporis ; Pinguis , Macilenti ; Complexionum (quas vocant,) &c.
- 53 Historia Generationis Hominum.
- 54 Historia Conceptionis, Vivificationis, Gestationis in utero, Partûs, &c.
- 55 Historia Alimentationis Hominis, atq; omnis Edulii & Potabilis, atq; omnis Diætæ ; & Varietatis ipsorum, secundùm Gentes aut minores differentias.
- 56 Historia Augmentationis & Incrementi Corporis in Toto & Partibus ipsius.
- 57 Historia Decursûs Ætatis ; Infantia, Pueritia, Juventutis, Senectutis, Longævitatatis, Brevitatis Vitæ, & similibium, secundùm Gentes & minores differentias.

Catalogus Historiarum Particularium

- 58 Historia Vitæ & Mortis.
- 59 Historia Medicinalis, Morborum, & Symptomatum & Signorum eorundem.
- 60 Historia Medicinalis, Curæ, & Remediorum, & Liberationum à Morbis.
- 61 Historia Medicinalis eorum quæ conservant Corpus & Sanitatem.
- 62 Historia Medicinalis eorum quæ pertinent ad Formam & Decus Corporis, &c.
- 63 Historia Medicinalis eorum quæ corpus alterant, & pertinent ad Regimen Alterativum.
- 64 Historia Pharmaco-polaris.
- 65 Historia Chirurgica.
- 66 Historia Chymica circa Medicinas.
- 67 Historia Visûs & visibilibus, sive Optica.
- 68 Historia Picturæ, Sculptoria, Plastica, &c.
- 69 Historia Auditûs & Sonorum.
- 70 Historia Musica.
- 71 Historia Olfactûs, & Odorum.
- 72 Historia Gustûs & Saporum.
- 73 Historia Tactûs & ejus Objectorum.
- 74 Historia Veneris, ut speciei Tactûs.
- 75 Historia Dolorum corporeorum, ut speciei Tactûs:
- 76 Historia Voluptatis & Doloris in genere.
- 77 Historia Affectuum; ut Iræ, Amoris, Verecundiæ, &c.
- 78 Historia Facultatum Intellectualium; Cogitativæ, Phantasiæ, Discursûs. Memoria, &c.
- 79 Historia Divinationum Naturalium.
- 80 Historia Dignotionum, sive Diacrisium occultarum Naturalium;
- 81 Historia Coquinaria; & Artium subservientium, veluti Macellaria, Aviaria, &c.
- 82 Historia Pistoria, & Panificiorum; & Artium subservientium, ut Molendinaria, &c.
- 83 Historia Vinaria.
- 84 Historia Cellaria, & diversorum generum Potûs.
- 85 Historia Bellariorum & Confecturarum.
- 86 Historia Mellis.
- 87 Historia Sacchari.
- 88 Historia Lacticianiorum.
- 89 Historia Balneatoria, & Unguentaria.
- 90 Historia Miscellanea circa curam corporis; Tonforum, Odoratorum, &c.
- 91 Historia Auri-fabrilis, & Artium subservientium.
- 92 Historia Lanificiorum, & Artium subservientium.
- 93 Historia Opificiorum è Serico & Bombyce, & Artium subservientium.
- 94 Historia Opificiorum ex Lino, Cannabio, Gossipio, Setis, & aliis Filaceis; & Artium subservientium.
- 95 Historia Plumificiorum.
- 96 Historia Textoria, & Artium subservientium.

Catalogus Historiarum Particularium.

- 97 Historia Tinctoria.
- 98 Historia Coriaria, Alutaria; & Artium subservientium;
- 99 Historia Culcitriaria & Plumaria.
- 100 Historia Ferri-Fabrilis.
- 101 Historia Latomiae sive Lapidarum.
- 102 Historia Lateraria, & Tegularia.
- 103 Historia Figularis.
- 104 Historia Cæmentaria, & Crustaria.
- 105 Historia Ligni-fabrilis.
- 106 Historia Plumbaria.
- 107 Historia Vitri & omnium Vitreorum, & Vitriaria.
- 108 Historia Architecturæ in genere.
- 109 Historia Plaustraria Rhedaria, Leticaria, &c.
- 110 Historia Typographica, Libraria, Scriptoria, Sigillatoria; Atramenti, Calami, Papyri, Membranæ, &c.
- 111 Historia Cerae.
- 112 Historia Viminaria.
- 113 Historia Storearia, Opificiorum ex Stramine, Scirpis, & similibus.
- 114 Historia Lotricaria, Scoparia, &c.
- 115 Historia Agriculturæ, Pascuaræ, Cultûs Sylvarum, &c.
- 116 Historia Hortulana.
- 117 Historia Piscatoria.
- 118 Historia Venationis & Aucupii.
- 119 Historia Rei Bellicæ, & Artium subservientium; Armamentaria, Arcuaria, Sagittaria Sclopetaria, Tormentaria, Balistaria, Machinaria, &c.
- 120 Historia Rei Nauticæ, & Practicarum, & Artium subservitium.
- 121 Historia Athletica, & omnis generis Exercitationum Hominis.
- 122 Historia Rei Equestris.
- 123 Historia Ludorum omnis generis.
- 124 Historia Præstigiatorum & Circulatorum;
- 125 Historia Miscellanea diversarum Materiarum Artificialium; ut Esmaltæ, Porcellanæ, complurium Cæmentorum, &c.
- 126 Historia Salium.
- 127 Historia Miscellanea diversarum Machinarum, & Motuum.
- 128 Historia Miscellanea Experimentorum Vulgarium, quæ non coaluerunt in Artem.

Etiam Mathematicarum purarum Historiæ conscribende sunt, licet sint potius Observationes quàm Experimenta.

- 129 Historia naturarum & potestatum Numerorum.
- 130 Historia naturarum & potestatum Figurarum.

Secundum Capita.

Non abs re fuerit admonere, quod, cum necesse sit multa ex Experimentis sub duobus Titulis vel pluribus cadere, (veluti Historia Plantarum & Historia Artis Hortulanæ multa habebunt ferè communia) commordior sit inquisitio per Artes, Dispositio verò per Corpora. Parùm enim nobis curæ est de Artibus ipsis Mechanicis, sed tantùm de iis quæ afferunt ad instruendam Philosophiam. Verùm hæc è re natâ meliùs regentur.

F I N I S.



Typographus Lectori.

UNâ aut alterâ Paginâ vacante in damnum Bibilopolaë, ad implendam areolam inanem, Nobiliff. Authoris Literas, suo Collegio missas ac propriâ manu munitas, subjungere visum est. Quòd vivit Chartula hæc peritura, id nostrum munus est; Tuum, Lector, si vigeat. Succincta pagina est, sed solida: & excellentium virorum, etiam Reliquiæ conservandæ. *Vale.*



F R A. De V E R U L A M I O
Vice-Comes S^{ti} *ALBANI.*

Percelebri Collegio Sanctæ & Individuæ Trinitatis.

IN
CANTABRIGIA. S.

Res omnes earumq; progressus initiis suis debentur : Itaq; cum initia Scientiarum è Fontibus vestris hauserim, incrementa ipsarum vobis rependenda existimaui. Spero itidem fore, ut hæc nostra apud vos tanquam in Solo nativo Feliciter succrescant. Quamobrem & vos hortor, ut salvâ animi modestia, & erga veteres reverentiâ, ipsæ quoq; Scientiarum Augmentis non desitis : verum ut post volumina sacra verbi Dei & Scripturarum, secundo loco volumen illud magnum operum Dei & Creaturarum, strenuè, & præ omnibus libris, qui pro Commentariis tantum haberi debent, evolvatis.
Valete.

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